# **Directory**

|  | Building: | Telephone Number:              |
|--|-----------|--------------------------------|
| Admissions   | 6         | 845-9129<br>845-9270 (V/T)     |
| Apprenticeship   | 4         | 845-9245                       |
| Emeritus College                                       | 2         | 842-1318                       |
| Financial Aid  | 6         | 845-9116                       |
| Fujio Matsuda Technology Training and Education Center | 2         | 845-9296                       |
| Library  | 7         | 845-9199 and<br>845-9220 (V/T) |
| Records  | 6         | 845-9120                       |
| Security (daytime)                                     | 6         | 845-9142                       |
| Security (nighttime)                                   | 2         | 845-9245                       |
| All other departments and faculty (main switchboard)   |           | 845-9211                       |

Individuals who cannot access catalog information in it's typical form should contact the Health Office for assistance at 845-9282 (V/T). Reformatting will require advance notice.

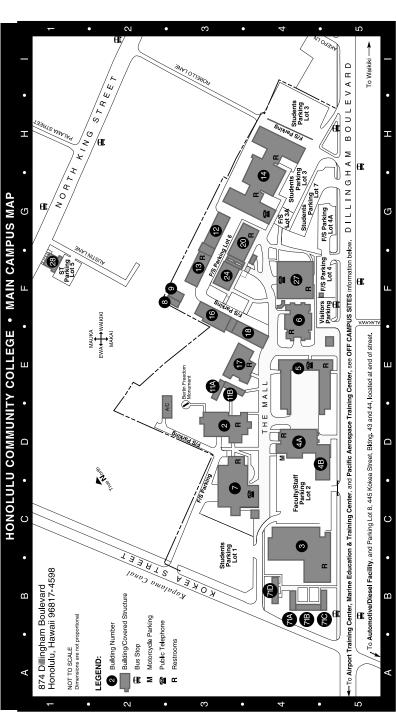
Deaf and hard of hearing individuals desiring information may contact the College by calling the TDD or TTY number (808) 845-9282 or by using the text telephone relay service at 643-8833 or 1-711. TTY pay phones are located at Bldg. 5, breezeway.

Information on disability accommodations for campus programs, services, activities, and facilities or requests for an alternative format of catalog information can be obtained by contacting Services for Students with Disabilities at 845-9282 (voice/tty) or 845-9272 (voice/tty).

Corrections to the information in this catalog will appear at our website:

(http://www.hcc.hawaii.edu/catalog/index.html)

email: admissions@hcc.hawaii.edu



Marine Education and Training Center 10 Sand Island Parkway Honolulu, HI 96819 11A [E3], 11B [E3], 2 [D3] Automotive/Diesel Facility, and Parking Lot 8 445 Kokea Street, Bldng. 43/44 Health Office 2 [D3] Liberal Arts 7 [C3] Fashion 27 [F4] Human Services Library 7 [C3] Fire **9** [F3] Commercial Aviation [Off Campus] Employment Training Ctr. 71D [B4] Networking Technology 20 [G3] Cosmetology 27 [F4]
Diesel Mechanics [Off Campus]
Educational Media Center 7 [C3]
Electricity 24 [F3] Computing, Electronics and Computer Labs 2 [D3] Airport Training Center (Aeronautics Maintenance) Berlin Freedom Monument [D3] Carpentry 14 [H4]
Child Care 11A [E3], 11B [E3]
College Skills Center 7 [C3] Campus Center 2 [D3] Career Center 6 [E4] Bookstore 2 [D3] Cafeteria 4A [D4] Admissions and Counseling 6 [F4] Aero Maintenance [Off Campus] & CAD Technologies 2 [D3] Art, Communication Arts 2 [D3] Apprenticeship Office 4B [D4] Architectural, Engineering Automotive [Off Campus] OFF CAMPUS SITES: Administration 6 [F4] Auto Body 3 [C4]

Marine Ed & Training Ctr. [Off Campus] Matsuda Technology Center 2 [D3] Occupational and Environmental Native Hawaiian Project 7 [C3] Safety Management 9 [F3] Maintenance Storage 8 [F3] Maintenance 18 [E4]

Student Media Board 2 [D3] College Skills Center 7 [C3] [rade Complex 14 [H3] Student Lounge 2 [D3] Welding 14 [G3] Sheet Metal Shop 17 [E3] Student Gov. (ASUH-HCC) 2 [D3] Student Health Office 2 [D3] Refrigeration & AC 14 [G4] Print Shop 16 [F3] Security 4B [D4] Science 5 [E4]

Student Life and Dev. 2 [D3]

PCATT 2 [D3]

Pacific Aerospace Training Center (Commercial Aviation)

Kalaeloa Airport, Hangar 111

91-1259 Midway Road

Kapolei, HI 96707

Bus routes that pass King & Liling ham: A City Express UH Manoa-Waipahu, B City Express Waikiki-School/Middle St./Liliha. Bus routes that travel on Dillingham Boulevard (Eastbound or Westbound): C Country Express Ala Moana-Makaha, 3 Ruger-Navy, 40 Honolulu-Makaha Beach, 40A Honolulu-Makaha Towers, 42 Wakiki-Ewa Beach, 43 Honolulu-Waipahu, 52 Honolulu-Wahiawa Circle Island, 62 Honolulu-Wahiawa Heights.

Honolulu, HI 96817

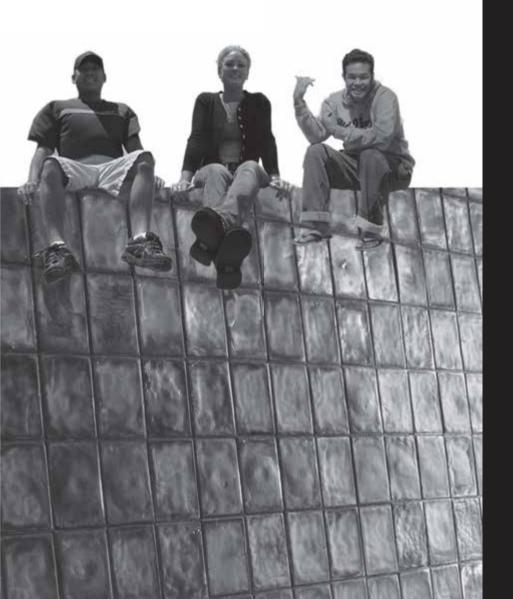
Honolulu, HI 96819

140 lako Place

# 2003-04 University of Hawai'i

874 Dillingham Boulevard Honolulu, Hawai'i 96817 Phone: (808) 845-9211 Fax: (808) 845-9173

Internet: http://www.hcc.hawaii.edu



This catalog provides general information about Honolulu Community College, its programs and services, and summarizes those major policies and procedures of relevance 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.

Any corrections to the information in this catalog will appear at our website (hcc.hawaii.edu/catalog).

# Cover: The Shining Light of Honolulu Community College

When I think of Honolulu Community College, I think of light. Light meaning goodness or hope as in seeing the light at the end of the tunnel. The words: fundamentals, basics, foundation, etc., are things that are instilled at HCC and gives students a better opportunity to succeed in the job market. The words and the light are shining over the students on the cover. Upon finishing your studies at HCC you definitely see the light because of all the skills, tools, and practical work you have done and learned through the teachings of the faculty. The tiled wall is symbolic of HCC. And after all the long hours doing homework, projects, and taking exams, the students have not only conquered the wall but are on top and enjoying the view.

Cover design and photography by Dean Otsuki, Communication Arts student

# 2003-2004 Academic Calendar

# FALL SEMESTER 2003

| .,,  |
|--|
| August 15, Fri   |
| August 25-29   |
| August 25-November 3 Drop period continues 1   |
| August 30, Sat   |
| September 1, Mon Labor Day (Federal & State Holiday) <sup>3</sup>  |
| September 15, Mon Last day to drop class and not have it appear  |
| on transcript <sup>1</sup>   |
| October 13, Mon  |
| October 15, Wed Last day to change major for Spring 2004 early registration                                      |
| October 15, Wed Last day to sharige major for opining 2004 early registration                                    |
| November 3, Mon Last day to drop/withdraw courses (with "W" grade) <sup>1</sup>                                  |
| November 3, Mon Last day for students to submit Incomplete ("I")   |
| make-up work from Spring 2003 and Summer 2003 to instructors   |
| November 11, Tue   |
| November 17, Mon Last day for instructors to submit students 1   |
| incomplete ("I") make-up grades from Spring 2003   |
| and Summer 2003 to the Records Office  |
| November 27, Thur Thanksgiving Day (Federal & State Holiday) <sup>3</sup>  |
| November 28, Fri Thanksgiving recess <sup>3</sup>  |
| (classes on at military bases, no classes at other facilities)   |
| (Bookstore closed)   |
| November 29, Sat   |
| December 11, Thur INSTRUCTION ENDS   |
| December 12, Fri Study period (no classes, no exams);  |
| not applicable to classes on military bases  December 13-19, Sat-Fri Evaluation period (See Final Exam Schedule) |
| December 19, Fri Evaluation period (See Final Exam Scriedule)  |
| December 22, Mon, 4pm Deadline for faculty members to enter  |
| grades in Banner   |
| December 25, Wed Christmas (Federal & State Holiday) <sup>3</sup>  |
|  |
| SPRING SEMESTER 2004   |
| December 4, Thur   |
| January 1, Thur New Year's (Federal & State Holiday) <sup>3</sup>  |
| January 2, Fri Faculty duty period begins (new 9-month Instructional)  |
| January 5, Mon   |
|  |

| January 12, Mon Late registration fee begins for semester classes (\$30.00)  January 12, Mon  |
|---|
| March 12, Fri Last day to apply for Spring graduation March 12, Fri Last day for instructors to submit student's incomplete ("I") make-up grades from Fall 2003 to the Records Office   |
| March 19, Fri Last day for students to submit incomplete ("I")  make-up work from Fall 2003 to instructors  March 19, Fri Last day to drop/withdraw courses (with "W" grade)  March 22–26, Mon-Fri Students' Spring Recess (State Recess)  (Bookstore closed) |
| March 26, Fri Prince Kuhio Day (State Holiday) <sup>3</sup> April 9, Fri Good Friday (State Holiday) <sup>3</sup> May 5, Wed INSTRUCTION ENDS  May 6-7, Thur-Fri Study period (No Classes, No Exams)  |
| not applicable to classes on military bases  May 8-14, Sat-Fri Evaluation period  May 14, Fri Graduation  May 14, Fri SPRING SEMESTER ENDS  May 16, Sun Faculty duty period ends  May 17, Mon, 4pm Deadline for faculty members to enter grades in Banner     |
| SUMMER SESSION 2004   |
| May 24, Mon   |

Note: Weekend classes meet before Monday holidays/recesses and following Friday holidays/recesses. Exception: No classes will meet the weekend following Spring Recess..

<sup>1</sup>Withdrawal and Drop Dates are different for classes that are NOT semester-length or a full summer session. See Withdrawals or College Policies in this catalog or Records Office.

<sup>3</sup>On Federal Holidays, classes scheduled on military bases and labs associated with military-base classes will not meet. On State Holidays and recesses, classes scheduled at other facilities will not meet.

Dates to be announced: refund dates, payment deadline. Refer to HCC web site for updated information (www.hcc.hawaii.edu)

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# **General Information**

#### HISTORY OF THE COLLEGE

The origins of Honolulu Community College date to 1920 when it was established as the Territorial Trade School in Palama. Subsequently it became part of McKinley High School and was later reestablished as Honolulu Vocational School. In 1955, it was renamed the Honolulu Technical School, and in 1965, it became part of the University of Hawai'i as a result of the Community College Act of 1964, legislation which provided for a system of comprehensive community colleges. In 1966, the Board of Regents approved the name Honolulu Community College and authorized it to grant Associate in Arts and Associate in Science degrees. The College is one of eight units in the UH Community College system.

Between 1966 and 1976 Honolulu Community College experienced very rapid growth and evolved into a fully comprehensive community college. The College offers liberal arts instruction leading to the two-year Associate in Arts degree with transfer of credits to junior class standing at four-year institutions of the State. Honolulu Community College currently offers the Associate in Science, the Associate in Applied Science, and the Associate in Technical Studies degrees as well as shorter certificate programs in more than twenty technical-occupational areas, integrated with a strong general education "core" to provide an educated citizenry for the workforce of the State of Hawai'i.

The Main Campus of Honolulu Community College, a short distance from the heart of downtown Honolulu, occupies over twenty acres on Dillingham Boulevard in the Kalihi-Palama area. The College also has facilities near Honolulu International Airport for the Aeronautics Maintenance and Commercial Aviation programs, automotive and heavy equipment shops on Kokea Street, and the Marine Education and Training Center at Sand Island.

# **ACCREDITATION**

Honolulu Community College is a member of the American Association of Community Colleges and the Western Association of Schools and Colleges. Honolulu Community College has been continuously and fully accredited since 1970 by the Accrediting Commission for Community and Junior Colleges, Western Association of Schools and Colleges.

# **PHILOSOPHY**

Honolulu Community College is committed to

- 1. A comprehensive offering of liberal arts and technical-occupational programs and continuing education
- 2. Open-door admissions and equal educational opportunity for all students regardless of their prior educational experience
- 3. Quality teaching
- 4. Affirmative action for non-traditional students
- 5. Responsiveness to the community's needs for up-to-date technical training.

#### MISSION

Honolulu Community College's PHILOSOPHY is based in a belief in

- Education as a lifelong process
- Universal access to quality higher education
- A learning-centered environment
- Promotion of citizenship and individual community commitment
- Continuous evolution to ensure that students are prepared for the realities of participation in an ever-changing society.

Honolulu Community College's MISSION is to

Serve the community as an affordable, flexible, learning-centered, open-door comprehensive community college that meets the post-secondary educational needs of individuals, businesses, and the community.

Serve the Pacific Region as the primary technical training center in areas such as transportation, information technology, education, communications, construction, and public and personal services.

To accomplish this mission, the goals of Honolulu Community College are to

- Provide two-year transfer educational programs that offer students the general education component of the baccalaureate degree.
- Provide two-year, four-year, apprenticeship, and short term technical/ occupational curricula for employment, skill upgrading and career advancement, and transfer to four-year technical programs.
- Ensure *general education competency* in communication, problem-solving, and cultural diversity/global awareness.
- Provide developmental instruction to building skills necessary to pursue educational objectives.
- Maintain flexible educational delivery systems to enhance student access by providing affordable education when and where it is needed.
- Continuously monitor all programs to ensure educational excellence.
- Develop activities to increase resources for programs and operations.
- Provide avocational curricula and extracurricular/cultural activities for personal growth and the development of leadership skills.
- Contribute to the community's economic and social growth.
- Maintain a multicultural environment where diversity is appreciated, respected and celebrated.

The mission of Honolulu Community College is consistent with the mission of community colleges as set forth in the Hawai'i Community College Act of 1964 (as amended), the Apprenticeship Act of 1967 (as amended), the mission of the University of Hawai'i system, and the State Vocation Master Plan, all of which ultimately aim at developing the State's greatest asset, its people.

The purposes of the University of Hawai'i Community Colleges as stated in the "University of Hawai'i Community Colleges Plan" (November 1977) are to:

Broaden access to higher education in Hawai'i by providing the opportunity for any high school graduate or adult aged 18 or older to enter quality educational programs within his or her community.

- Specialize in the effective teaching of diverse liberal arts and sciences so that Community College graduates are prepared to enter the workplace or advance with confidence toward baccalaureate degrees.
- Provide semiprofessional, technical and vocational education and training that prepares students for immediate employment and supplies the paraprofessionals, technicians, and craftspeople needed by Hawai'i's businesses and industry.
- Offer continuing education in the form of general and customized employment training, as well as non-credit instruction that emphasizes occupational advancement, career mobility, and personal enrichment.
- Contribute to the cultural and intellectual life of communities throughout Hawai'i by sharing leadership, knowledge, problem-solving skills, and informational services; by offering forums for the discussion of ideas; and by providing venues in which community members can both exercise creativity and appreciate the creative work of others.

# **Statutory Authority**

The Hawai'i Community College Act of 1964 established the UH System of community colleges. As amended, the purposes of community colleges are to provide two-year college transfer and general education programs; two-year and four-year vocational technical education programs; semi-professional, technical, vocational, and continuing education programs; and such other educational programs and services as are appropriate to such institutions.

The State Apprenticeship Law states that "Related instruction for apprentices, coordination of instruction with job experiences, and the selection and training of teachers and coordinators for the instruction shall be the responsibility of the community college division of the University of Hawai'i."

#### NONDISCRIMINATION AND AFFIRMATIVE ACTION

The University of Hawai'i is an Equal Opportunity/Affirmative Action Employer. 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. 101–336. 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.

As an integral part of its policy on Nondiscrimination and Affirmative Action, the Office of the President, University of Hawai'i hereby declares and reaffirms its commitment to the University's pursuit of equal education and employment opportunity and further declares that any harassment of students or employees on the basis of sex is prohibited and will not be tolerated. Complaints of this nature will be handled by the Honolulu Community College EEO/AA Coordinator.

The individual designated to coordinate the University of Hawai'i Community Colleges' nondiscrimination and affirmative action programs is

Mary Perreira (EEO/AA) Community Colleges 2327 Dole Street Honolulu, Hawai'i 96822

Address inquiries to and obtain complaint forms and a copy of grievance procedures from:

Honolulu Community College EEO/AA Coordinator (Lorry Suehiro, Personnel Officer, 847-9843) Title IX Coordinator, Section 504 Coordinator (Theron Craig, Dean of Student Services, 845-9235)

# Honolulu Community College

874 Dillingham Boulevard Honolulu, Hawai'i 96817



The Task Force on Sexual Orientation has initiated a Safe Zone program aimed at keeping the University System a comfortable place for the lesbian, gay, bisexual, and transgendered population. A Safe Zone symbol identifies a person (student, teacher, staff, administrator) you can trust: someone who will be understanding, supportive, and helpful.

Phone: 956-4650 or 956-4651 (VIT)

# **DISCRIMINATION COMPLAINTS**

Students, employees, or applicants for admission or employment who believe that they have been discriminated against on the basis of race, sex, age, religion, color, ancestry, sexual orientation, marital status, disability, veteran's status or arrest and court record may file a complaint with the EEO/AA coordinator (Lorry Suehiro, 847-9843, Bldg. 6, 2nd Floor). The EEO/AA coordinator will explain the available avenues of recourse and direct the person to the appropriate person or office.

The process of addressing allegations of discrimination are described in the CCCM No. 2210 UH Community College Procedure and Guidelines, Relating to Complaints of Discrimination and in campus Section 504/ADA Grievance Procedure.

Students may also file complaints of discrimination with the Office of Civil Rights, Henry M. Jackson Federal Building, 915 Second Avenue, Room 3310, Seattle, WA 98174-1099. Phone: (206) 220-7920. FAX: (206) 220-7887.

# **SEXUAL ASSAULT POLICY**

As required by the Higher Education Amendments of 1992, the College has a Sexual Assault Policy which explains the college's Sexual Assault Prevention Program presented to promote awareness of rape, acquaintance rape, and other sex offenses and the procedures for reporting offenses. The Sexual Assault Prevention Program is presented by the Health Center in cooperation with Student Life and Development. A copy of the Sexual Assault Policy can be obtained at the Office of the Dean of Student Services, Administration Building, second floor. The procedure for the Sexual Assault Prevention Program can be obtained from the Health Center, Building 2, first floor.

# SEXUAL HARASSMENT

It is the policy of the College to provide a safe and comfortable learning and working environment for students and employees. Sexual harassment is a form of discrimination that can undermine the foundation of trust and mutual respect that must prevail if the University is to fulfill its educational mission. Sexual harassment will not be tolerated in any part of the University's programs and activities. Sanctions will be imposed on members of the University community who violate this policy. Disciplinary actions against employees will be subject to the collective bargaining agreements. For more information, please contact the Office of the Dean of Student Services or the EEO/AA Coordinator.

#### **EDUCATIONAL FACILITIES**

The main campus of Honolulu Community College has been almost totally rebuilt since 1970. Shops and laboratories equipped with appropriate tools and supplies are maintained for instructional programs in over thirty technical-occupational areas, and modern classrooms and laboratories have been built for liberal arts courses.

The Campus Center Building offers a modern central setting for student activities, as well as specialized instructional facilities for Communication Arts, Architectural, Engineering and CAD Technologies, Computer Science, and Music.

A trade-industrial complex provides up-to-date facilities for training in many trade areas. Students working toward associate degrees use the complex during the day in carpentry, refrigeration and air conditioning, and welding. Apprentices and journeyworkers in twenty different trades are trained in its shops and class-rooms during evening hours and on weekends.

The Aeronautics Maintenance facility at Honolulu International Airport, includes completely equipped shops which meet Federal Aviation Agency requirements. The flight training facility will be located at Barber's Point in Fall 2003.

Two transportation technology facilities are located on Kokea Street, makai of the main campus. The facilities house well-lighted classrooms and airy shops that complement both theoretical learning and hands-on training in Automotive Mechanics Technology and Diesel Mechanics Technology. The Automotive facility is used during the evening hours and on weekends for in-service skill training.

The Marine Education and Training Center at Sand Island began operations in 1995 with the Boat Maintenance and Repair Program.

#### CHILDREN'S CENTER

Keiki Hauʻoli, HCC Children's Center, is the primary training site for early child-hood students enrolled in certificate and degree programs at HCC. The children in the center are children of students, faculty and staff at HCC. The center is staffed by teachers who are trained in early childhood education and by HCC student teacher trainees under the supervision of a college instructor. Presently there are three programs: Infant, Toddler, and Preschool. Space is limited and students, faculty members, and staff members are encouraged to apply early.

HOURS INFANT PROGRAM

7:30 a.m. to 4:00 p.m. Monday through Thursday,

7:30 a.m. to 2:00 p.m. Fridays

TODDLER PROGRAM

7:30 a.m. to 4:00 p.m. Monday through Thursday,

7:30 a.m. to 2:00 p.m. Fridays

PRESCHOOL PROGRAM

7:30 a.m. to 4:00 p.m. Monday through Thursday,

7:30 a.m. to 2:00 p.m. Fridays

The Children's Center observes all college holidays and non-instructional days. A complete list-

ing is in the college catalog.

PRIORITY FOR ENROLLMENT

Priority for Children's Center enrollment will be given to 1) previously enrolled children of current HCC students, 2) children of HCC students who are single parents and financial aid recipients, and 3) children of full time HCC students.

Parents of children must be HCC students carrying at least six credits or faculty or staff members of HCC. Up to 25% of total enrollment may be reserved for faculty and staff children. Any unfilled faculty and staff slots may be allotted to children of HCC students.

AGE INFANTS 3–18 months

TODDLERS 18-36 months PRESCHOOL 3 & 4-years-old

FEES See Tuition & Fees.

# LIBRARY

The Library occupies the first two floors of Building 7. It supports technical-occupational and liberal arts programs. Students have access to computer catalogs, including the University of Hawai'i Voyager System, Hawai'i State Public Library System, and magazine and newspaper databases.

The Library's special collections include the Hawai'i/Pacific collection and the Automotive Technical Collection.

#### **EDUCATIONAL MEDIA CENTER**

The Educational Media Center is located on the third floor of Building 7 and contains facilities for the support of instruction. Among the services offered are: 1) duplication of study materials, tests and forms needed by the College and by student organizations, 2) production of graphic and photographic materials, 3) production and duplication of audio and video materials, 4) procurement and promotion of all types of audiovisual instructional materials and equipment.

#### THE COLLEGE SKILLS CENTER

The College Skills Center (CSC) on the third floor of Building 7 on the main campus, is the launching point for students' academic experience at Honolulu Community College. CSC provides testing for English and math placement that is accepted throughout the UH Community College system. Testing is computerized, and the English portion is available in a version for non-native speakers. CSC provides entry-level English and math instruction that prepares students to meet program entry prerequisites. CSC instructional programs promote independent learning and help students practice conceptual skills in a lab setting that incorporates audio-visual materials. computers, hands-on activities, and reference materials with faculty, staff, and student-assistant support. Campus support services include testing for distance education students and accommodations for students with disabilities.

# **COMPUTER LAB FACILITIES**

The College has various computer labs to support the development of computer literacy as well as programming and computer-assisted drafting and design (CADD). The computer labs are located on the fourth, fifth, and sixth floors of Building 2, in the Aeronautics, Communication Arts, and Natural Science departments, and in The College Skills Center.

# FUJIO MATSUDA TECHNOLOGY TRAINING AND EDUCATION CENTER

(845-9298)

Endowed by a significant gift to the UH Foundation, the Fujio Matsuda Technology Training and Education Center (MATSUDA TECHNOLOGY CENTER) serves as the technological bridge connecting Honolulu Community College with appropriate businesses and industries in Hawai'i.

The Matsuda Center introduces emerging technologies to the community through workshops, seminars, and non-credit classes.

# **TRANSPORTATION**

Honolulu Community College is conveniently located where many bus routes cross in front of and behind the campus.

Bus routes that travel on Dillingham Boulevard: 43 Ala Moana-Waipahu, 42 Waikiki-Ewa Beach, 40 Honolulu-Makaha, 52 Honolulu-Wahiawa-Circle Isle, and 3 Navv.

Bus routes that pass King & Liliha/King & Dillingham: 1 Kalihi-Kaimuki/Hawai'i Kai, 2 Liliha, A City Express to UH Manoa.

There is limited parking on or near the campus. See parking permits.

# **PARKING**

Parking Regulations are available at the cashier's desk in the Administration Building.

# **ILLICIT DRUGS AND ALCOHOL**

Copies of policies governing the possession, consumption, serving and sale of illicit drugs and alcohol on the University of Hawai'i, Honolulu Community College campus are available in the Student Health Office.

Campus-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 and must be approved by the Provost in advance.

This Official Notice, by the University of Hawai'i Office of the President, is issued pursuant to the requirements of the federal Drug-Free Schools and Communities Act of 1989 and the Drug-Free Workplace Act of 1988.

In conformance with the existing law, University faculty, staff 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 of this part shall be subject to the provisions of the student conduct code. Faculty and staff found in violation of this part 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 and the Hawai'i Penal Code are available in the Office of the Dean of Student Services.

Campus-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 law.

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

# **UH TOBACCO PRODUCTS POLICY**

Effective January 2003, the University of Hawai'i system implemented a new Tobacco Products policy in an effort to improve the working and learning environment of the University, and protect faculty, staff, students and visitors from second-hand smoke exposure while on University of Hawai'i campuses.

According to the policy, smoking is prohibited in the following areas:

- a) All interior space owned, rented, or leased by the university;
- b) In building courtyards, breezeways, and terraces, on exterior stairways and access ramps, and outdoor dining patios, terraces, and lanais;
- Within 20 feet of building entrances, exits, air intake ducts, vents, and windows of buildings that are not air-conditioned;
- d) Within 50 feet of designated pick-up and drop-off points for campus and public bus transportation;
- e) Within the gates of the university's outdoor sports and performing arts stadiums and arenas, including walkways, corridors, and seating areas; and,
- f) 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.

# **LETHAL WEAPONS**

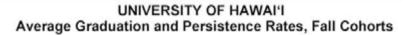
Lethal weapons (firearms, spear guns, and bows and arrows) are prohibited on campus except with specific prior permission of the Provost.

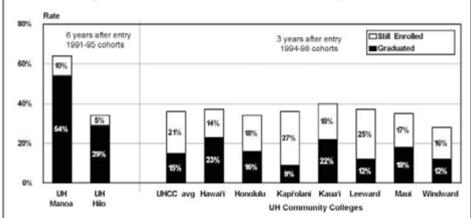
# PERSONAL PROPERTY

The University of Hawai'i and Honolulu Community College are not responsible for lost, stolen, or vandalized personal property. Individuals are advised to safeguard their own personal property, including cars, purses, tools, books, etc.

# **COPYRIGHT POLICY**

A copy of the University of Hawai'i Copyright policy is available in the Honolulu Community College Library. The policy is applicable to all UH campuses, including Honolulu Community College.

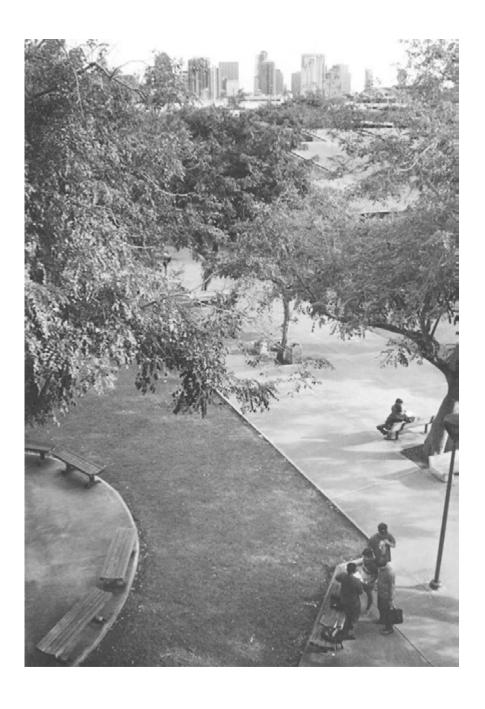




Success rate is the percentage of students who have either graduated or are still enrolled at a campus. Average success rates are 64% at UH Manoa, 34% at UH Hilo and 36% at the UH community colleges. Graduation rates for the most recent cohort are 52% at UH Manoa and 30% at UH Hilo for the Fall 1995 cohort six years after entry, and at the UH community colleges for the Fall 1998 cohort three years after entry: 14% overall, 19% at Hawaii CC, 17% at Honolulu CC, 11% at Kapirolani CC, 13% at Kauaii CC, 13% at Leeward CC, 18% at Mauii CC, and 8% at Windward CC.

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 and describes averages for groups of students. It should not be used to infer or predict individual behavior.

Sources: Chancellor's Offices at the University of Hawai'i at Hilo and University of Hawai'i Community Colleges; Institutional Research Office, University of Hawai'i; March 2002.





# **Student Services**

The College offers students a wide range of services and activities throughout the academic year and summer months. Students are encouraged to seek individual or group counseling, career and vocational exploration, and other related student services such as those listed below.

# **Admissions Counseling**

Counseling is available to prospective students to help them select appropriate programs. Counselors will assist students in assessing their educational needs, career interests, and academic qualifications. Information on program requirements, services, and financial aid helps students decide which program to undertake at the College.

# **Advising for New Students**

Advising is held on the day of registration or in group meetings where new students meet with a counselor, faculty advisors, and other students to become familiar with program requirements, college offerings, services, and regulations. Assistance is given for course selection.

# Academic Counseling

Counselors and faculty advisors are available to assist students in setting educational goals and in planning programs of study. Information about course placement, prerequisites, course sequence, and registration and transfer information is provided. Students are encouraged to see a Counselor or advisor at least once each semester. Other services include: VA educational benefits certification, financial aid academic certification, program status and eligibility, graduation information, counseling as related to academic success, course waiver/substitution, information on credit by exam and transcript evaluation.

# Career Counseling

Counselors also work with students to explore career possibilities and training opportunities. Counselors help students assess their skills, interests, and values in developing career/life plans. Individualized assistance, workshops, and Student Development courses help students in self-directed career/life planning and job search activities.

# Career Resource Information

Career Resource Information covers occupations, colleges, job search, and personal development. Career Resource Information includes videotapes, audio cassettes, workbooks, periodicals, and other multimedia resources for student use.

#### Individual Assessment

A variety of occupationally related tests are available at the Admissions and Counseling Center. Students may learn more about themselves by taking tests that determine interests, values, personality traits, and abilities.

# Career Exploration

A computerized career information systems is available to Honolulu Community College students. Using Career Kokua, students can access current local labor market, educational and career information; consider career choices based on their own needs and interests; make course selections based on their career decisions; and obtain college program information.

#### Job Placement

Job placement services are available to students and recent graduates of Honolulu Community College. Current full and part-time jobs are posted on Job Boards. Job placement services also include the development of job search skills such as resume writing and interviewing.

# 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 their 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.

Through the Student Health Office, the College provides coordinated services to help students with documented disabilities achieve their educational goals. The following support services may be arranged on an individual basis:

- application, admissions, financial aid, and registration assistance;
- career and academic counseling:
- campus orientation;
- auxiliary equipment such as enlarged materials, brailled materials, portable tables, cassette recorders, taped texts, magnifiers, and high drafting tables;
- notetaking, mobility and laboratory aids, readers, sign language interpreters, special testing, and/or other academic support services, as appropriate;
- Text Teletype devices are available in the:

| Student Health Office      | 845-9282 |
|----------------------------|----------|
| Library                    | 845-9220 |
| College Skills Center      | 845-9272 |
| Switchboard                | 845-9211 |
| Operations and Maintenance | 845-9142 |
| Security                   | 845-9273 |
| Admissions                 | 845-9270 |
| Human Resources            | 845-9181 |
| Academic Counseling        | 845-9228 |

- Text telephone relay service: 643-8833.
- Students with mobility problems may request on-campus parking and/ or handicapped parking and elevator access if needed. (M.D. note or Handicapped Parking Placard required.)
- A campus accessibility map showing locations of ramps, restrooms, elevators and handicapped parking stalls is available from the Student Health Office.

Students desiring special services must provide appropriate documentation and contact the Student Health Office as early as possible to allow sufficient time for services to be put in place. For further information contact Lorri Taniguchi, Student Health Office, located in Building 2, Room 108, 845-9282 (V/T), Sheryl Legaspi, College Skills Center, located in Building 7, 3rd floor, 845-9272 (V/T), or Rona Wong, Academic Counselor located in Bldg. 6, 1st floor, 845-9228 (V/T).

# FINANCIAL AID

The financial aid program at Honolulu Community College (HCC) helps those students who can benefit from higher education but who may have difficulty attending HCC without financial help. The financial aid program adds to the efforts of the student and the student's parents/spouse. All students may apply for financial aid at Honolulu Community College.

# How to Apply for Aid

To be considered for financial aid at HCC an applicant must

- be accepted for admission (or be currently enrolled) in a degree or certificate program at HCC and
- 2. have filed the Free Application for Federal Student Aid (FAFSA).

The FAFSA is available at the Financial Aid Office at HCC, other college or university financial aid offices, at high school guidance offices, and at www.fafsa.ed.gov. Financial aid is not automatically renewable and must be filed every year. Formal application and Satisfactory Academic Progress (see section on Satisfactory Academic Progress) are required each year that aid is sought. Applicants who file a FAFSA will automatically be considered for the Federal Pell Grant, Federal Supplemental Educational Opportunity Grant, Hawai'i Student Incentive Grant, and need-based Tuition Waiver.

# When to Apply for Aid

Awards are made for an academic year (Fall/Spring). Applications should be filed as soon as applications are available in January of each year. The College will begin making awards for fall in April and spring in November. Applicants who apply (and re-apply) early have the best opportunity to have their needs met.

Applicants must file a financial aid application for each academic year that they seek aid. The amount and type of aid for each year depends upon the applicant's continued need, date of application, and academic progress.

# Financial Aid Satisfactory Academic Progress Policy

Students enrolled at HCC must be making satisfactory progress in accordance with the HCC Financial Aid Satisfactory Academic Progress Policy before any financial aid will be awarded. Progress is measured in the number of credits completed toward the degree/certificate and grade point average. HCC measures students' progress at the end of the academic year.

# **DEFINITION**

# TIME FRAME

A. At HCC, students are determined to be making progress if they complete degree requirements within the equivalent of six full-time semesters. This applies to all students enrolled at HCC, including students who change majors or who seek a degree or certificate in more than one program.

B. The number of semesters full-time students are eligible for financial aid is determined by their degree objective at HCC:

|                            | Maximum Semesters |
|----------------------------|-------------------|
| Degree Sought              | of Eligibility    |
| AA or AS                   | 6*                |
| Certificate of Achievement | 3                 |

- \*Programs requiring more than 60 credits may be considered for additional semesters of eligibility.
- C. Credits accepted in transfer from another institution will be used to calculate remaining credits required for completion of the degree or certificate.
- D. Because of limited funds, students who have earned sufficient credits applicable to their degree will not be eligible for additional semester(s) of aid, even though they may not have used their maximum semesters of eligibility.

# CREDIT COMPLETION REQUIREMENTS

A. HCC has established the following minimum for financial aid satisfactory academic progress. Completed credit load refers only to credits applicable to the students' declared degree or certificate at HCC.

|                        | Number of credits            | Required credits          | Required credits           |
|------------------------|------------------------------|---------------------------|----------------------------|
| Semester<br>Enrollment | enrolled in<br>each semester | Completion for 1 semester | Completion for 2 semesters |
| full-time              | 12 or more                   | 10 credits                | 20 credits                 |
| three-quarters         | 9, 10, 11                    | 8 credits                 | 15 credits                 |
| half-time              | 6, 7, 8                      | 5 credits                 | 10 credits                 |

Less than half-time students must complete all credits in which they are enrolled. If students change their enrollment from semester to semester, the credit completion requirement for the year will be the sum of the credit completion requirements for the semesters.

B. Students may receive payment for repeating a required course in which a grade

lower than a "C" was received. This option is available only once per required course. Each attempt will be counted toward the students' number of equivalent full-time semesters.

- C. The following will be considered as credits not successfully completed:
  - 1. "F" Grades
  - 2. "W" Withdrawals
  - 3. "N" No Grade
  - 4. "I" Incompletes

An incomplete (I) grade is calculated as no credit received until the grade is changed by the instructor and added to the student's academic record by the Records Office. At that time, the grade received is calculated at face value. If students need that completed grade to change their status (probation/suspension) they should contact the Financial Aid Office when the grade is added to the transcript. The Financial Aid Office will not automatically review for an incomplete grade.

# GRADE POINT AVERAGE (GPA) REQUIREMENT

All financial aid recipients are expected to maintain a cumulative grade point average of at least 2.00.

#### FINANCIAL AID PROBATION/SUSPENSION

#### FINANCIAL AID PROBATION

Credits and grades earned will be reviewed at the end of each semester.

- A. After the semester, students who do not meet the minimum credit completion for their enrollment status but complete at least half of their credits will be placed on probation for the following term and receive aid.
- B. Students who do not meet the cumulative GPA requirement after their first semester of enrollment at HCC but complete at least half of their credits will be placed on probation the following semester.
- C. At the discretion of the Financial Aid Office, students may have their probationary period extended beyond one semester if their cumulative GPA has not been raised to a 2.00 but their semester GPA is at 2.00 or above.

Students on financial aid probation will be notified in writing of their status and advised to take appropriate action.

# FINANCIAL AID SUSPENSION

Students' financial aid at HCC will be suspended and they will not be eligible for financial aid in subsequent semesters under the following conditions:

- A. At the end of a probationary period, students complete less than the required minimum earned credit hours or fail to achieve semester and cumulative grade point average of at least 2.00 *OR*
- B. Students who do not complete at least half of the credits for which they enrolled. Enrollment will be the highest number of credits the student enrolled for in a semester.

Suspended students not enrolling at HCC in the succeeding semester will have their suspension stand until they have met the requirements for reinstatement.

#### REINSTATEMENT

Students who have been placed on financial aid suspension may re-establish their eligibility by demonstrating satisfactory academic progress.

- To reinstate eligibility, students must 1) enroll at least half time (6 or more credits required for the degree) 2) complete the required number of credits for their credit load, and 3) earn a semester and cumulative grade point average of at least 2.00.
- 2. Students who attempt to reinstate eligibility during the summer sessions must complete at least 6 credits during the summer (may combine sessions) with current and cumulative grade point average of at least 2.00.
- Upon successful completion of credits and grade point average, students must notify the Financial Aid Office in writing that they wish to be reinstated. The Financial Aid Office will notify students in writing whether or not they have been reinstated.

Note: For summer only—due to the short time between the end of the summer sessions and fall registration, it will not be possible for students to be reinstated before Fall registration. Requests for reinstatement will be processed in September. If students are reinstated, their aid application will be re-activated on the date they are reinstated. Students will need to pay their own tuition and fees at registration.

# APPEAL OF FINANCIAL AID SUSPENSION

- A. Students who have been suspended from financial aid at HCC may appeal the decision. A written appeal must be submitted to the Financial Aid Office explaining in detail 1) the specific reasons which contributed to the students' lack of progress and 2) the steps being taken to ensure academic progress if students are reinstated.
- B. The Financial Aid Administrator will review the appeal and determine whether or not the students will be granted one semester of financial aid pro-

bation. Students will be advised in writing of the decision.

Note: Copies of the complete policy are available at the Financial Aid Office. Check with the Financial Aid Office for the most up-to-date and complete policy.

# Federal Financial Aid

The majority of aid awarded by Honolulu Community College is federal and based on demonstrated financial need. Eligibility requirements are determined by federal rules and include the following:

# Applicant must

- be a U.S. citizen or an eligible non-citizen (permanent resident)
- be enrolled in a degree granting program (you must be a classified student at HCC)
- be making satisfactory academic progress toward your degree
- not be in default on a loan or owe a refund on a federal grant
- have demonstrated financial need
- have obtained a high school diploma, GED, or have passed a federally approved test
- be registered with Selective Service, if required

All financial aid programs are subject to change.

Note: Military Selective Service Act (P.L. 97-252) requires that beginning July 1, 1983, any student who is required to register with the Selective Service System and fails to do so shall be ineligible to receive Federal Title IV student financial aid including: Federal Pell Grants, Federal Supplemental Educational Opportunity Grants (SEOG), Hawai'i Student Incentive Grant (HSIG), Federal Perkins Loan Program, Federal Family Educational Loan Program, Subsidized Federal Stafford Loan, Unsubsidized Federal Stafford Loan, Federal Parent Loan for Undergraduate Students, and Federal Work Study. This requirement affects all male students who are at least eighteen years of age, who were born after December 31, 1959. The group of affected males includes citizens and eligible non-citizens eligible except citizens of the Federated States of Micronesia, the Marshall Islands, or the permanent residents of Palau. For further information contact the Financial Aid Administrator at 845-9116.

## **Student Grants**

FEDERAL PELL GRANTS are assistance grants which require no repayment. They are available to students who have not received a bachelor's degree. The Department of Education sends a Student Aid Report (SAR) directly to the student to confirm eligibility.

FEDERAL SUPPLEMENTAL EDUCATIONAL OPPORTUNITY GRANTS (SEOG) provide financial assistance to students with no repayment. They are available to students with exceptional need. Priority must be given to Pell grant recipients.

HAWAI'I STUDENT INCENTIVE GRANT (HSIG) is available to students who are Hawai'i residents, enrolled at least half time, and eligible for Federal Pell grants. The award covers tuition. A portion is paid by the federal government.

#### Student Loans

FEDERAL PERKINS LOAN PROGRAM (formerly NDSL program) is a long-term loan program. Students are limited to a total of \$4,500 from loan program while attending HCC. Awards are based on demonstrated financial need and availability of funds. Repayment begins nine months after the borrower ceases to be enrolled on at least half-time basis. Deferments are available.

FEDERAL FAMILY EDUCATIONAL LOAN PROGRAM (FFELP) (formerly Guaranteed Student Loans) are long-term loans from private lenders such as banks and credit unions and guaranteed by the federal government. The interest on these loans is variable. There are three types.

- FEDERAL SUBSIDIZED STAFFORD LOAN. A Federal Stafford loan is made through a bank or lending institution and guaranteed by a state agency. Annual loan limits differ depending on a student's academic level and existing Stafford loan balance. Repayment begins six months after the borrower ceases to be enrolled on at least a half-time basis. Deferments are available.
- FEDERAL UNSUBSIDIZED STAFFORD LOAN The maximum amounts and interest rates of this loan program are similar to the Subsidized Federal Stafford Loan program. However, interest begins accruing upon disbursement of the funds. Deferments are available.
- 3. FEDERAL PARENT LOAN FOR UNDERGRADUATE STUDENTS (PLUS) This program provides additional loan funds for student's educational expenses. Parents of dependent students may borrow up to the calculated cost of attendance minus other student aid, for their child from the FPLUS program. The interest rate on FPLUS loans are variable. Interest begins accruing upon disbursement of the funds. Deferments are available.

STATE HIGHER EDUCATION LOAN (SHEL) This loan program is available to Hawai'i residents. Students are limited to a total of \$4,500 from this loan program while attending HCC. Awards are based on demonstrated financial need and avail-ability of funds. Repayment begins 9 months after the student ceases to be enrolled on at least a half-time basis. Deferments are available.

# Student Employment

FEDERAL WORK-STUDY (FWS) provides part-time employment on campus. Students are limited to a maximum of 20 hours per week during the academic terms. An individual student's award is based upon his or her individual need and the availability of funds.

# **Tuition Waivers** (Pending Board of Regents action)

TUITION WAIVERS may be awarded to students on the basis of need, merit, or recruitment for particular programs. Refer to the Tuition & Fees section of the Catalog for additional tuition waivers.

Tuition Waiver (Need-Based)- Students who submit an application (FAFSA) for financial aid are considered for a tuition waiver based on need. FAFSA applications are available at the Financial Aid Office.

Tuition Waiver for Recruitment (Merit/Recruitment)- To encourage a balance of male and female students in the various programs of study, tuition waivers may be awarded to students who are majoring in programs customarily dominated by members which the College has determined are of the opposite sex. Applicants must be accepted in a non-traditional major. Recipients must enroll in at least 6 credits applicable to the degree or applicable toward program readiness, maintain at least a 2.00 GPA, and maintain satisfactory progress requirements each semester. Non-traditional majors will be reevaluated periodically to see if still applicable. For now, non-traditional majors for female students include AEC, AERO, APTRD, ABRP, AMT, CARP, CENT, DIESL, EIMT, FIRE, IED, MARMR, OESM, RAC, SMP, and WELD. Non-traditional majors for male students are COSME, FT, and HSERV.

Tuition Waiver for Promising High School Students (Merit/Recruitment)Nomination forms are mailed to high school principals and counselors in
the spring. High school principals or designees will send application with
individual school requirements. To promote quality educational programs
through the recruitment of promising high school graduates. Applicants must
be a graduating high school senior nominated by their Principal or designee.
They must be accepted in a major at Honolulu Community College at the
time of the nomination and plan to enroll in at least 6 credits per semester
in the year of the award. Applicant's cumulative high school GPA must be
2.0 or higher. The criteria for determining a promising or outstanding graduate is left up to the high school to decide; however, this criteria must be
documented on the Nomination Form in addition to a statement of how the

# Scholarship Programs

The PHYLLIS LOVELESS SCHOLARSHIP is available for individuals who live or work in Kalihi-Palama and are accepted for admission in the Early Childhood Education Option. Applicant and selection are made through the department.

PACIFIC ASIAN SCHOLARSHIPS (PAS) for the amount of tuition for students with high scholastic merit who are pursuing a course of study important to the Pacific-Asian region. Students who have completed at least 12 credits at HCC the courses that meet their degree requirements and have a cumulative and previous GPA of 3.00 or higher, and are enrolled **full-time** are eligible for this waiver.

Preference in awarding is given to non-residents who are residents of Pacific, East Asian, and Southeast Asian countries; however, other non-residents and Hawai'i residents will be considered. Recipients must enroll in at least 12 credits, maintain at least a 3.00 GPA, and maintain satisfactory credit completion requirements each semester. Applications are available at the Financial Aid Office.

CHARLES HEMENWAY SCHOLARSHIPS are available for Hawai'i residents who have demonstrated financial need through an application for financial aid. Scholarship applications are available at the Financial Aid Office.

RUTH BLACK SCHOLARSHIPS are available for students whose parents are or were employed in the Hawai'i construction industry and who have demonstrated financial need through an application for financial aid. Applications are available at the Financial Aid Office.

HAWAI'I VETERAN'S SCHOLARSHIPS are available for Hawai'i residents who have demonstrated financial need through an application for financial ald. Scholarship applications are available at the Financial Aid Office.

# **Short Term Loans**

Emergency Short Term Loans are available to help meet unexpected expenses. The loans are repayable within 30 days. Check with the Financial Aid Office for additional information and application.

# Student Employment/Job Placement

Honolulu Community College maintains lists of full-time and part-time off-campus employment opportunities as well as on-campus jobs. Students may also receive assistance with job search skills, application procedures, resume writing, and interview skills. For more information, contact Student Services at 845-9204.

#### How Financial Need is Determined

Demonstrated financial need is the difference between the "cost of education" and the "expected family contribution"

Cost of Education

- Expected Family Contribution
- = Demonstrated Financial Need

The application for financial aid, completed by the student and the student's family, determines the "expected family contribution." This is an amount based on income and assets, expenses, number of family members, etc. as reported on the FAFSA.

A Standard "cost of education" is established for each student. This amount is an average of typical expenses within the academic year.

- tuition and fees\* (adjusted for enrollment status)
- room and board allowance
- books, supplies, and tools
- personal expenses
- transportation
- child care

<sup>\*</sup>Students who will be concurrently enrolled at Honolulu Community College and at another University of Hawai'i campus must contact the Financial Aid Office for more information.

With supporting documentation, additional expenses related to attending HCC can be considered in the standard budget.

# Changes in Financial Status

Changes in the student's financial status may result in an increase or decrease in the cost of education or increase or decrease in the expected family contribution. Either would change the amount of aid for which the student is eligible. If a student's financial circumstances change significantly from the time that he/she originally applied for aid, he/she should see a Financial Aid Administrator.

# Selection, Notification, and Payment

Upon receiving a Student Aid Report, the Financial Aid Office will review the student's file for completeness and, if complete, determine the student's eligibility for aid. Notification will be made to all eligible applicants who have submitted complete applications. Awards will be made on the basis of need. Applicants are encouraged to apply as soon as applications are available in January each year; some funds are limited and run out.

Offers of aid will be made in an aid award letter. The letter will tell the student of the awards and the conditions of those awards. The letter will have a date due by which the student must sign the letter and return it to the Financial Aid Office.

Unless otherwise noted on the Financial Aid Award Offer Letter, all awards are paid equally for the fall and spring semester. With the exception of tuition waivers, awards cannot be credited to a student's account, no earlier than 10 days prior to the first day of classes for that term. A refund check will be mailed (unless otherwise noted) to the student within 14 days from the date that the balance occurs. The Financial Aid Office credits the student's account within 5 working days after the student returns his/her signed aid award offer. By applying early, the student will receive his/her Award Offer Letter prior to the start of school.

# **Changes in Enrollment Status**

Changes in the student's enrollment status may result in an increase or decrease in the cost of education and resultant financial aid offer. It is the student's responsibility to inform the Financial Aid Office of any changes in enrollment as it may affect the financial aid award.

In the event a student should completely withdraw from Honolulu Community College, the Financial Aid Office will adhere to all institutional refund policies (see Tuition and Fees section). In addition, Federal regulations stipulate that any recipients of Federal Title IV funds who withdraw from school or disappear prior to the 60% period of enrollment will be subject to a calculation which will determine the amount of Title IV funds that the student and the school is responsible for returning to the Federal Government. Failure of the student returning these funds may affect the future Title IV eligibility.

Students who completely withdraw should contact the Financial Aid Office prior to withdrawal from classes. Copies of the most up-to-date and complete Refund Policy are available at the Financial Aid Office.

# Rights and Responsibilities

The student has the right to know:

- the cost of attending HCC and the policy on refunds to students who drop out
- what financial assistance is available

what procedures and deadlines are for submitting applications for each available financial aid program

- how HCC selects financial aid recipients
- how need is determined
- how much of the student's need has been met
- how and when the student will be paid
- the interest rate on any loans offered to the student and the conditions of repayment
- if offered Federal Work-Study, what kind of job it is, what hours must be worked, duties, rate of pay, and method of payment
- how an aid package is reconsidered if the student believes a mistake has been made or if enrollment or financial circumstances have changed.
- how HCC determines satisfactory academic progress.

The student is responsible for

- reviewing and considering all information about a school's program before enrolling
- submitting complete and accurate information concerning enrollment and financial circumstances
- knowing and complying with all deadlines for applying and reapplying for financial aid
- providing all documentation, corrections, and/or new information requested by the Financial Aid Office
- notifying the Financial Aid Office of any information which has changed
- reading, understanding, and keeping copies of all forms requiring the student's signature
- repaying any student loans and attending entrance and exit interviews for those loans
- satisfactorily performing work agreed upon in a Federal Work-Study job
- understanding HCC's refund policy.

For additional financial aid information, contact the Financial Aid Office at 845-9116.

# VETERANS ADMINISTRATION BENEFITS

The College is an approved educational institution for education and training under the Veteran's Educational Assistance Act (GI Bill), the Veteran's Readjustment Act, and the Dependents' Educational Act. Information regarding eligibility, entitlement and types of training authorized may be obtained from the Veterans Administration Regional Office.

#### STUDENT HEALTH OFFICE

The Student Health Office, located on the first floor of Building 2, is open Monday through Friday from 8:00 a.m.-4:30 p.m. and provides first aid assistance, health education, counseling, and referrals to community agencies and services.

Services and activities are provided by a registered nurse for students currently enrolled at the College. NON-COLLEGE SERVICES, SUCH AS AMBULANCE AND EMERGENCY ROOM FEES, ARE NOT COVERED BY THE COLLEGE. Therefore, students should expect to pay these costs on their own.

No comprehensive health care is available at the College. Therefore, students are encouraged to explore other medical and health options, such as the University of Hawai'i Medical Insurance Plans which are designed for student needs and are less expensive than most other health insurance plans available to students.

Brochures and applications for the student health plans are available at the Student Health Office.

For more information about activities and programs, medical insurance plans or other health related matters, contact the Student Health Office 845-9282 (V/T).

See "Health Requirements for Admission" for medical clearance requirements for admission.

# HOUSING INFORMATION

Honolulu Community College has no housing facilities and the College does not supervise, recommend or assume responsibility for any housing facility. The Office of Student Life and Development maintains an off-campus housing information list. For information contact the Student Life and Development Office. Students are also eligible to apply for housing at University of Hawaii Manoa, Student Housing Services.

#### FOOD SERVICE

The College's cafeteria serves breakfast, snacks and lunch at reasonable prices. Food vending machines are located in various buildings of the campus.

# **BOOKSTORE**

There is a bookstore on the first floor of the Campus Center Building for the students' convenience. The hours are 8:00 a.m. to 3:30 p.m. Monday through Friday. Hours are extended during registration periods and the first week of each semester. Closed recesses and holidays. The main items for sale are required textbooks and supplies.

#### STUDENT LIFE

Honolulu Community College recognizes the need for active student involvement in college governance and the necessity for out of classroom enrichment experiences for the total development of the student. Student Life activities add a dynamic dimension to the college experience through the co-curriculum by providing new learning experiences and opportunities.

# The Campus Center

The Campus Center in Building 2 includes offices for the ASUH-HCC Senate, the Student Media Board, meeting rooms, the Bookstore and the Student Health Office. The Student Life and Development Office, located on the first floor, provides support for all student organizations on campus, houses the lost and found center, and produces Student IDs for the College.

#### Student Government

All fee paying students are regular members of the Associated Students of Honolulu Community College (ASUH-HCC) (see also Tuition and Fees).

The Student Senate represents the ASUH-HCC on most College committees, Faculty Council committees and University councils and committees. It is through this important student organization that students play a prominent role in the governance of the college and the University System.

The student government program provides interested students the opportunity to learn and develop leadership skills. Student leaders learn parliamentary procedures and individual and group decision-making and interaction techniques. For more information contact the ASUH-HCC Senate office.

The Campus Activities Board sponsors social, cultural, recreational and educational programs. The Campus Activities Board initiates activities and supports other campus clubs and organizations in delivering a wide range of interesting programs to the campus community. For example, there are musical offerings, intramurals and outdoor recreation\*, dances, films, concerts, lectures, informal gatherings and special interest clubs. For more information contact the Student Life and Development office in the Campus Center, first floor.

\*In order to participate in sports activities students must be covered by accident and health insurance and must fill out Risk and Release and Medical Consent forms available in the Student Life and Development Office.

# Media/Publications

The Student Media Board is responsible for the formulation of policies, bylaws and procedures applicable to student publications and other media.

The Ka La is the student news magazine of Honolulu Community College and Xpress is the student literary and art publication.

# STUDENT REGULATIONS

**Student Conduct Code** (A brief summary): The following categories and specific examples of impermissible behavior are subject to disciplinary sanctions because they conflict with the fundamental purposes and special interests of the University and its constituent campuses:

- interference with the rights of others, including interference with freedom of speech and the right to peaceful assembly, such as demonstrations which coerce individuals, present a hazard to the safety of any person, or threaten the destruction of property; interference with campus operations; or noncompliance with campus behavioral restrictions on demonstrations;
- interference with University processes, including false or fraudulent information, personal misconduct, theft or mutilation of University property, disruption, abuse of controlled substances, off-campus behavior in violation of professional standards of the University or not in compliance with applicable federal and state laws; and academic dishonesty, such as cheating, plagiarism, or violation of other existing University regulations.

One or more of the following sanctions may be imposed whenever a student is found to have violated any of the rules contained in this code: warning, probation, restitution, temporary suspension, suspension, expulsion, or rescission of grades or degree.

Disciplinary procedures include temporary suspension in emergency situations, reporting of infractions, preliminary investigation, initiation of charges, administrative disposition, Student Conduct Committee disposition, a disciplinary hearing, Committee recommendations, review by the Provost, and the final decision and orders by the Provost.

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

Cheating includes but is not limited to giving or receiving unauthorized assistance during an examination; obtaining unauthorized information about an examination before it is given; using inappropriate or unallowable sources of information during an examination; falsifying data in experiments and other research; altering the record of any grade; altering answers after an examination has been submitted; falsifying any official University record; or misrepresenting the facts in order to obtain exemptions from course requirements.

Plagiarism includes but is not limited to submitting, in fulfillment of an academic requirement, any document that has been copied in whole or in part from another individual's work without attributing that borrowed portion to the individual; neglecting to identify as a quotation another's idea and particular phrasing that was not assimilated into the student's language and style or paraphrasing a passage so 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 obtaining and using experimental data and laboratory write-ups from other sections of the course or from previous terms, or fabricating data to fit the desired or expected results.

Copies of the student conduct code are available at the Honolulu Community College Office of the Dean of Student Services. Also see Sexual Assault Policy (General Information).

**Financial Obligations to the University:** Students who have not satisfactorily adjusted their financial obligations (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.

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 Business Office.

**Student Grievances:** The process of addressing allegations of misconduct or acts of discrimination is described in the procedures for Handling Impermissible Behavior and the Academic Grievance Procedures. Copies are available at the Office of the Dean of Student Services.

**Other regulations** that apply to students may be found in the General Information section.





# **Academic Regulations**

#### CLASSIFICATION OF STUDENTS IN CREDIT PROGRAMS

Classified Student: A student who is enrolled for credit in an official program leading to the Associate Degree or Certificate of Achievement or Certificate of Completion or Certificate of Competence.

Unclassified Student: A student who is enrolled for credit but is not in an official program leading to the Associate Degree or the Certificate of Achievement or Certificate of Completion or Certificate of Competence.

Special Student: A student who is enrolled for credit as a concurrent registrant or an early admittee.

#### **EDUCATIONAL LEVEL**

Freshman: A student who has earned fewer than 25 credits towards the Associate Degree or Certificate of Achievement or Certificate or Completion.

Sophomore: A student who has earned 25 credits or more towards the Associate Degree or Certificate of Achievement.

#### FULL-TIME AND PART-TIME STUDENTS

Full-time Student: A student who enrolls in 12 semester credits or more in a semester or in a 12-week summer term. A student is also considered to be full-time under the following conditions: enrolled for 6 credits or more in a 6-week summer session where full-time status is for the 6-week session only or enrolled for 8 credits or more in a 10-week term.

Part-time Student: A student who enrolls in fewer than 12 semester credits in a semester or fewer than the minimum semester credits required for full-time status in shorter terms or sessions.

Half-time Student: A student who enrolls in at least 50% of the semester credits required for full-time status in a semester or shorter term or session.

The definitions of a full-time student and of a part-time student are Honolulu Community College definitions used for certifying enrollment. A summer term may consist of more than one session. A third party such as Veterans Administration (VA) benefits or federal financial aid may have another definition of a full-time student to be used in determining eligibility for benefits, which they allow a student.

#### ADMISSIONS INFORMATION

# Eligibility

Any U.S. high school graduate or any person 18 years of age or over who can profit from the instruction offered is eligible for admission to the College, subject to the availability of resources. Students under 18 may be considered for early admission.

# **Application Deadlines**

Deadlines for filing applications for priority admission are July 1 for the Fall Semester and December 1 for the Spring Semester. The deadline for the Summer Session will be announced. Individuals are advised to file their applications as early as possible.

# **General Admissions Requirements**

Honolulu Community College participates in the Coordinated Admissions Program of the University of Hawai'i. Application forms and instructions are available at the Admissions Office of Honolulu Community College or in the Counseling Office of any high school in Hawai'i.

# Application Procedure

- 1. File the Common Application Form with the Admissions Office.
- 2. File the Residence Information forms included in the application.
- 3. Submit other information, forms, and documents as requested by the College. Request additional forms if you are in the following categories:
  - Foreign (Non-Immigrants)
  - Military personnel (or dependents) stationed in Hawai'i
  - Cosmetology applicants show proof of graduation from high school
  - Automotive Mechanics Technology applicants show valid Driver's License
  - An applicant is notified by mail of acceptance or non-acceptance by the College only after the above items have been completed and submitted to the Admissions Office.
  - All documents, transcripts and forms submitted become the property of the College and will not be returned to the applicant.
  - Commercial Aviation applicant requires Flight Medical Clearance.

# Acceptance Information

Applicants will be notified by mail of their acceptance and scheduled for placement testing.

If accepted, the student **must** 

- 1. Submit negative tuberculin test or chest x-ray report to the HCC Health Office. Must be submitted prior to registration.
- Complete English and Math placement. (See English & Math Placement Requirement.)
- 3. Report for registration at the scheduled time and pay all tuition and fees required at this time.
- 4. Attend classes. (See "Class Attendance.")

A student is accepted into the program or major of his or her choice. However, in a few cases the student may not be able to enroll in the beginning courses in the program because

- 1. certain prerequisites for the courses have not been met
- 2. the program may be filled
- 3. beginning courses in the program are not offered in that semester.

A student is given a Program Status and designated as Eligible (E) or Not Eligible (NE) after placement.

Eligible (E) - You are eligible to enter the beginning courses in your program, but there may not yet be space.

Not Eligible (NE) - You are not eligible because you must complete program prerequisites.

Check "Starting Dates for Programs" below to see which programs accept

# **English and Math Placement Requirement**

You need placement to take major classes in most programs. You need placement to take any class with an English or Math prerequisite.

#### What do I do?

 Take placement tests. (Schedule comes with your acceptance letter.)

Or, demonstrate your placement through one of the following:

- placement test from any UH system college 9/1/2001 or later;
- "D" or/ better in college coursework (Writing, Reading, ESL, Math) from a

regionally accredited U.S. college or university;

 an associate degree or higher from a regionally accredited U.S. college or university.

Submit evidence to the Records Office to determine if you have acceptable equivalents. See the placement flow-chart for help completing the process.

If you have taken English

since 1987, or have taken

lulu on-campus placeg^

classes on-campus at UH-

9/1/2001, do not complete the form(s) on the back UNLESS you are seeking a higher placement level based on coursework from another college.

# What should I bring to take the placement test?

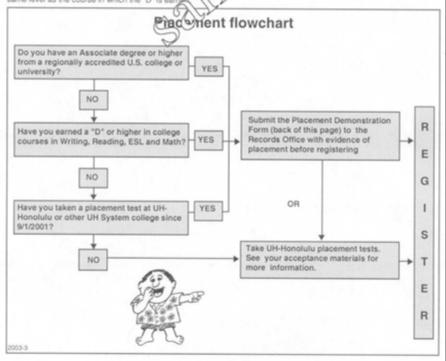
Bring your photo ID, social security number (and glasses if you need them to read).

What is the test like?

Multiple choice.

Computer driven.

"Please note that a "C" or higher will place you into the hex morsh of Math level of a course; a "D" will place you at the same level as the course in which the "D" is earned



If you have taken HCC's on-campus placement test 9/1/2001 or later or have completed English and/ or Math classes at HCC since 1987, DO NOT complete this form UNLESS you are seeking a higher placement level.

Return to HCC Records Office before you register

#### University of Hawaii--Honolulu FALL 2003

| Pie | pase Print) Last Name First Name Social Security Number   |
|-----|---|
| ay  | Phone   |
|     | PLACEMENT EMOISTRATION FORM   |
| )   | UH-Honolulu English or Math taken On-Base   |
| tu  | ident must request evidence beent by other institution or submit a copy to UH-Honolulu cords Office.  |
| )   | Placement tests from another University of Hawaii System community college or UH-Honolulu's On-Base<br>Program taken on or after 9/1/2001. Test scores attached.  |
| ]   | *D* or higher in Writing, Reading, ESL, and/or Math from a regionally accredited U.S. college or university.  (Official transcripts required only if you also want transfer credit.) For courses taken outside Hawaii, provide course descriptions and catalogs. Allow 4 weeks for evaluation. Copy of transcript or report card attached.  |
|     | use official transcripts for transfer credit to HCC degree (Note: Official transcripts are those sent directly to HCC. Handcarried transcripts will be treated as unofficial.)  |
|     | use official transcripts for placement only   |
| 1   | Advanced Placement or CLEP results in English or Math.  |
|     | An Associate degree or higher from a regionally accredited U.S. college or university: place into ENG 22/60 (no MATH placement); Bachelor's or higher: place into ENG 100 and MATH 100). Copy of transcript and/or diploma attached.  |
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students in both Fall and Spring semesters. If the program is filled, students are unable to enroll in the beginning courses in their program and are advised to take required related courses during the first semester. After one semester, the student usually will be able to take beginning courses in the program; however, in a few programs the waiting period may extend to a full academic year or more.

Admissions Counselors are available to provide information about the College and its programs and to assist each applicant in choosing a program which offers the maximum opportunity for self-development.

If a student does not wish to attend Honolulu Community College after being accepted, he or she may request that the application be redirected to the next choice campus of the University of Hawai'i or that the application be cancelled.

# Starting Dates for Programs

The chart shows when new majors may start a program. A dot (•) in the F column means a student may enter the program in the Fall Semester (F). A dot (•) in the S column means a student may enter the program in the Spring Semester (S).

|  | <u>E</u> <u>S</u>                     |   | <u>E</u> <u>S</u>                       |
|--|---------------------------------------|---|---|
| Students may begin Administration of Justice (AJ) Aeronautics Maintenance (AERO) Applied Trades (APTR) Architectural, Engineering & CAD Technologies (AEC) Auto Body Repair and Painting (ABRP) Automotive Mechanics (AMT) Carpentry (CARP) Commercial Aviation (AVIT) Communication Arts (CA) Computing, Electronics, & Networking (CENT) Cosmetology (COSM) Diesel Mechanics Technology (DISL) | · · · · · · · · · · · · · · · · · · · | Electrical Installation & Maintenance Technology (EIMT) Fashion Technology (FT Fire and Environmental Emergency Response (FIRE) Human Services (HSER) Industrial Education (IED) Liberal Arts (LBAR) Marine Technologies: Boat Maintenance and Repair (MARR) Occupational and Environmental Safety Management (OESM) Refrigeration and Air Conditioning (RAC) Sheet Metal and Plastics (SMP) Welding (WELD) | • |
|  |                                       |   |   |

- ☆ Every odd year
- Check with Admissions regarding program status.

# Residence Regulations for Tuition Purposes

Students other than statutory exempt individuals, 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 non-resident tuition. An official determination of residency status will be made at the time of application. Applicants may be required to provide documentation to verify residency status. Once classified as a nonresident, a student continues to be so classified during

his/her term at the College until he/she can present satisfactory evidence to the residency officer that proves otherwise.

Some of the more pertinent University residency regulations follow. For additional information or interpretation, contact the Registrar at Honolulu Community College, Building 6, 845-9120.

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 the following for indicia):
- 2. Been physically present in Hawai'i for the 12-14 consecutive months prior to
- t the first day of instruction, and subsequent to the demonstration of intent to make Hawai'i his/her legal residency; and
- 3. The student, whether adult or minor, has not been claimed as a dependent for tax purposes 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 indicia apply:

- a. Voting/registering to vote in the State of Hawai'i.
- b. Filing Hawai'i Resident State Personal Income Tax Return.

Other indicia, such as permanent employment or the leasing of a dwelling in Hawai'i may apply, but no single act is sufficient to establish residency in the State of Hawai'i.

NO SINGLE ACT IS SUFFICIENT TO ESTABLISH RESIDENCY IN THE STATE OF HAWAI'I. Having registered to vote in the State of Hawai'i and filing Hawai'i Resident Income Tax Returns are probably the two most important considerations for establishing intent. Other indicia, such as permanent employment or the leasing of a dwelling in Hawai'i may apply, but no single act is sufficient to establish residency in the State of Hawai'i. Other legal factors involved in making a residency determination include

- The twelve months of continuous residence in Hawai'i shall begin on the date upon which the first overt action (see indicia above) is taken to make Hawai'i the permanent residence.
- Residency in Hawai'i and residency in another place cannot be held simultaneously.
- 3. Presence in Hawai'i primarily to attend an institution of higher learning does not create resident status. Continued presence in Hawai'i during vacation periods and occasional periods of interruption of the course of study does not itself overcome this presumption.
- 4. The residency of unmarried students who are minors follows that of the parents or of the legal guardian. Marriage emancipates a minor.
- 5. The residency of a married person may follow that of the spouse.
- 6. Resident status, once acquired, will be lost by future voluntary action of the resdent 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.

These considerations do not exhaust all of the factors that affect the determination of residency. For more information, consult the "Rules and Regulations Governing Determination of Residency as Applied to Tuition Payments and Admission at All Institutions Under the Jurisdiction of the Board of Regents of the University of Hawai'i."

# Non-Resident Students and Statutory Exemptions

Once classified as a non-resident, a student continues in this status at the College until submitting satisfactory evidence to the Records Office that proves otherwise.

The maximum number of non-resident students that can be accepted by the College is limited by the Board of Regents policy. Students classified as non-residents are required to pay non-resident tuition, unless exempted from paying such tuition through one of the *statutory exemptions* listed below:

- A. United States military personnel and their authorized dependents during the period such personnel are stationed in Hawai'i on active duty.
- B. Persons who are legal residents of a district, commonwealth, territory or insular jurisdiction, state or nation which provides no public institution of higher learning.
- C. Employees of the University of Hawai'i and their spouses and legal dependents.

#### Misrepresentation

A student or prospective student who intentionally or willfully misrepresents any fact on any form or document intended for use in determination of resident status for tuition purposes will be subject to the regular disciplinary measures of the University of Hawai'i.

#### Appeal Process

Residency decisions may be appealed by contacting the residency officer for information on how to initiate an appeal before students register for classes. Appeals are heard by the Committee on Resident Status only after the resident tuition is paid.

#### Admission of International Students

International applicants must comply with all regulations of the Immigration and Naturalization Service as well as with applicable policy of the Board of Regents of the University of Hawai'i and the policies of Honolulu Community College. For the purposes of clarifying requirements for admission, international students who are not U.S. citizens and who have not been admitted to live in the U.S. permanently are designated as non-immigrants. Honolulu Community College is authorized under Federal law to enroll non-immigrant alien students.

They must meet the *General Admissions Requirements* as well as the following special admissions requirements: by June 15 for Fall semester and November 1 for Spring semester.

 Have their scores on the Test of English as a Foreign Language (TOEFL) submitted to the College. Scores must be from a test taken within the last two years. Acceptable scores for admission are 500 and above on the paperbased test and 173 and above on the computer-based test. Students who have scores below can enroll in the Intensive ESL program at HCC..

Applications and/or requests for scores to be sent to the College should be made by writing to TOEFL, Educational Testing Service, Princeton, New Jersey, 08540, or by contacting the American Consulate in the applicant's country. Applicants in the following categories are exempt from taking the test:

- a. Applicants whose native language is English.
- b. Applicants who have completed either three years of high school education or 30 semester credits of college level work (30 transfer semester credits for the Associate in Arts degree program) from an accredited college or university in the United States, Australia, Britain, Canada or New Zealand.
- c. Applicants transferring from accredited colleges and universities in the United States, Australia, Britain, Canada or New Zealand, who have completed the equivalent of freshman level English (English 100) with a grade of "C" or better.
- d. Applicants who have attended American, British or Canadian "international schools" in foreign countries for three years may qualify for exemption upon request.
- 2. Fall within the limit for non-resident students as mandated by Board of Regents policy.
- 3. Submit a Supplementary Information Form for Foreign applicants.
- Submit a completed Certificate of Health Form (see additional instructions under Health Requirements for Admissions on next page under Foreign nonimmigrant students).
- Submit evidence of ability to pay all expenses either personally or through a sponsor.
- Submit evidence of enrollment in a health and accident insurance plan prior to registration. Enrollment in such a plan must be for the duration of the student's stay in Hawai'i. Choice of plans is left to the discretion of the student.

The Student Health Office has descriptive literature on several plans, and the student may choose one that meets his or her needs. Health and accident insurance is mandatory.

All documents and application material must be received by the priority deadline for the appropriate semester.

Foreign non-immigrant students should have an official notice of acceptance and Form I-20 before coming to Hawai'i.

Foreign non-immigrant students will be accepted into a particular degree program which has not been already filled and will not be allowed a change of major. Such students will be expected to carry an academic credit load of at least twelve (12) credits per semester. These 12 credits must be required in the student's program. A student will normally not be allowed more than six semesters to complete a program.

Permission to work off campus will not be recommended for foreign non-immigrant students.

Contact Admissions Office for rules and regulations and admissions requirements.

With the approval of their high school counselors, high school students may enroll at Honolulu Community College while completing their high school graduation requirements. Students must complete the *General Admission Requirements* of the College and submit an "Early Admit" form signed by their high school counselors. Students so admitted must submit a new "Early Admit" form each semester.

# Health Requirements for Registration

In compliance with public health regulations, students must show evidence that they are free of active Tuberculosis (TB), and Measles (Rubeola).

Tuberculosis Clearance. In compliance with public health regulations, all students prior to enrollment must show evidence that they are free of active Tuberculosis. Therefore, all students must submit a report of a chest x-ray or Tuberculosis (intradermal) skin test. The date of the x-ray or skin test must be no earlier than 12 months before the first day of instruction for the term as published in the academic calendar for first time college students. Skin tests and chest x-rays may be obtained at the Lanakila Health Center, 1700 Lanakila Avenue, Honolulu, telephone 832-5731. The Student Health Office at Honolulu Community College maintains a list of health agencies which administer free Tuberculin skin tests. Resuming and transfer students must attach proof of past or current enrollment with TB clearance used at other college to the HCC Health Office.

Measles Clearance. Measles (Rubeola) Clearance is a requirement for all new students attending the College. Students must have proof of two Measles or MMR (Mumps, Measles, Rubella) vaccinations (given one month apart and after 1/1/68), confirmation of the disease by a physician, or blood testing proving immunity against Measles. All students must complete a Health Form even if they are exempt. Students exempt from submitting proof of Measles Clearance are continuing/transfer students within the University of Hawaii system and students born before 1957. All other students, including active duty military and their dependents and International students, must submit Measles Clearance. Photocopies of the following may be attached to the Health Form: Pupil Health Record (State of Hawaii Department of Education Form 14), immunization record from your M.D.'s medical file, Military shot record or public health immunization record, Rubeola blood (serology) test showing immunity, and M.D.'s note confirming diagnosis of disease.

Health Form. A health form completed by the student is requested at the time of enrollment at the College. Emergency and medical information should be updated at the Health Office as needed and upon re-entering HCC.

The TB Clearance, Measles Clearance, and the Health Form must be submitted prior to registration.

Foreign non-immigrant students are required to submit a Certificate of Health Form with a chest x-ray clearance along with the application for admission. In addition, they are required to submit an additional report of clearance from the State Department of Health after arrival in the U.S. TB tests and chest x-rays performed. All non-resident foreign students must demonstrate proof of enrollment in a health and accident insurance program before any such student shall be permitted to enroll. The intent of this requirement is to protect international students against the high cost of unanticipated health care expenses resulting from accidents or illness.

Honolulu Community College complies with all applicable requirements of other state health agencies and councils as may be required by law or by rules and regulations.

# REGISTRATION, WITHDRAWALS, AND OTHER CHANGES

#### Registration

Pre-registration for currently enrolled students is held the semester before.

Registration for new students who meet the priority deadline is held prior to late registration.

A Schedule of Classes is published each semester and is available to students prior to registration. The college catalog should also be used in planning the program of studies.

An incoming student is assigned a time to register for courses only after completing all the General Admissions Requirements and other related requirements.

Students are considered officially enrolled only after registering, paying tuition and fees, and attending the first two classes. Those students who are unable to attend classes during the first and second class session(s) of the semester must notify their instructors before the first class session, or they may be dropped.

# Late Registration

Students registering after the regularly scheduled registration period are called late registrants and are assessed a late registration fee of \$30.00 beginning first day of instruction of semester.

# **Auditing Courses**

Auditors must complete all admission and registration requirements and procedures, including payment of tuition and fees. Students are permitted to audit certain classes with the written consent of the instructor. Auditors generally are not allowed in laboratory science, mathematics, elementary and intermediate modern languages, English composition, speech courses, or in classes where they might take the place of credit students.

Students who want to audit a course must submit the signed Instructor Approval Form authorizing the audit to the Records Office during the first week of the semester. No credit is given for an audited course and a grade of "L" will be recorded for the course on the student's transcript. The extent of classroom participation is at the option of the instructor.

#### Class Attendance

No-Show Policy — Students must attend the first two class sessions of the semester. It is the student's responsibility to notify the instructor of anticipated or unavoidable absences. If a student is not able to attend the first two class sessions, he or she may be dropped by the instructor to make room for other students waiting to enroll in the class.

Disappearer Policy—Students who have ceased to attend class or never attended class and do not officially drop the class are considered "Disappearers." Students who have stopped attending class or never attended class and do not officially drop the class by the deadline date may receive the "F" grade. A student who has a justifiable reason for temporarily not attending a class must notify the instructor or Division Chair or Assistant Dean. A student who has a justifiable reason for dropping a class must do so before the deadline.

# Change of Registration: Adds and Drops

Adding or dropping a course is official only after the student has completed and submitted an *Add/Drop Card* and has paid the required fee(s) to the Cashier's Office. A fee is charged each time a student adds or drops classes. The fee is charged for each transaction. A transaction may involve adding or dropping more than one class. Additional tuition and fees, if applicable, will also be charged at the time a student adds a class or classes.

Courses may be added only during the published dates. Instructor approval is required from the second week of instruction.

Courses officially dropped during the first three weeks of instruction each semester will not appear on the student's academic record. Courses officially dropped after the first three weeks will be assigned a "W" on the academic record. Students may drop courses and receive a "W" grade up to the deadline stated in the Academic Calendar. Any student who fails to drop a course officially by the deadline will be given any grade except the "W". If a student stops attending class, but does not officially drop the class by the deadline date, the instructor may assign the "F" grade.

#### Cancellation of Registration and Cancellation of Classes

Students may be dropped from classes for the following reasons:

- The student is a no-show (see no-show policy).
- The class is canceled.
- The student doesn't pass a prerequisite course with the required grade.
- The student doesn't make required payment by the established deadline.

Classes may be canceled for the following reasons:

- unavailability of instructor
- funding change
- low enrollment
- unavailability of facility

# Complete Withdrawal From College

Students who wish to withdraw completely from the College should fill out a *Complete Withdrawal Form* available from the Records Office and obtain the necessary signatures as indicated on the form. The deadline dates for officially withdrawing are in the Academic Calendar. If a student stops attending class, but does not officially withdraw by the deadline date, the instructor may assign the "F" grade.

The refund policy for withdrawals is explained under "Tuition and Fees-Refunds."

- 1. Semester-length classes officially dropped during the first three weeks of instruction each semester will not appear on the student's academic record. Semester-length classes officially dropped after the first three weeks will be assigned a "W" on the academic record. Students may drop classes and receive a "W" grade up to the deadline stated in the Academic Calendar.
- 2. Classes that are not semester-length and are
  - a. dropped during the first 20% of calendar days within the published class dates will not appear on the transcript.

 b. dropped after the first 20% and up to the first 50% of the calendar days within the published class dates will be assigned a grade of "W" on the academic record.

# Change of Major

ENTERING STUDENTS: All new, returning, and transfer students who want to change a major and have the change effective for their first semester must contact the Admissions Office.

CONTINUING STUDENTS: Continuing students may request a change of major any time during the year. To be in effect for pre-registration, the change must be received by the Records Office no later than March 1 for Fall semester or October 15 for Spring semester. Requests for change of major after these deadlines will be processed for the next registration.

A student who is requesting a change of major must see an Academic Counselor and complete the required "Change of Major" form. It is the student's responsibility to submit the completed form to the Records Office.

# Change of Personal Data or Address

Any changes of address, name, and citizenship must be reported to the Records Office in writing. Out-of-state students should provide their local address upon arrival. Failure to do so will result in an inaccurate education record and/or failure to receive registration materials, grade reports and important College announcements

# CREDITS, GRADES, AND EXAMINATIONS

#### Credits

Credits (also called semester hours, credit hours, or units) are granted in recognition of work successfully completed in specific courses. A lecture course of semester duration which meets three hours a week is assigned three hours credit and normally requires two hours of outside preparation for each hour of lecture.

A laboratory course of semester duration usually requires three hours of laboratory for each assigned credit.

#### Credit Load

The usual credit or course load for students is approximately one-half of the total requirement for one-year programs or one-fourth of the total requirement for two-year programs. A student may not register for more than 17 credits during any one semester except under special circumstances and with an Academic Counselor's approval. Counselor's approval is not needed in programs which require more than 17 credits per semester.

# **Course Numbering**

Courses numbered below 100 generally do not transfer to baccalaureate degree colleges. Courses numbered 100 and above are eligible to be transferred to any baccalaureate degree institution including campuses within the University of Hawaii system. Course credits may be accepted but not applicable to a specific program at the receiving institution. Students are advised to plan early any transfer in accordance with requirements of the receiving institution as each establishes its own transfer regulations, including acceptability and applicability.

#### Variable Credit Courses

Certain courses designated by "V" in this catalog and in the *Schedule of Classes*, are offered for variable credit. The number of credits for which a student enrolls must be approved by the instructor prior to registration.

# Transcript Evaluations (Transferring Credits)

If a transfer student has earned a "D" in a course that serves as a program or course prerequisite and that HCC program/course requires the completion of the prerequisite course at a "C" or higher level, the transfer student will have to take and complete the HCC prerequisite course and earn the required grade before proceeding to the next stage of the course/program.

While transfer coursework is not calculated directly into the HCC Cumulative Grade Point Average, "D" grade transfers will be limited to ensure that students meet appropriate HCC graduation standards. To be awarded an HCC degree, a student's cumulative grade point average must be 2.0 or higher. Therefore, "D" grade transfers will be limited in such a way that the incoming credits meet a minimum of a 2.0 grade point average.

It is the student's responsibility to have official transcripts of previous work sent to the Records Office. Without the transcript, the student may need to repeat courses previously taken. Official evaluation will be made after enrollment to Honolulu Community College. Transcripts may be evaluated after acceptance upon student's request. The credits will be posted to the HCC transcript after the student has completed credits at Honolulu Community College.

# **Prior Learning Credit**

When requested, transfer credits may be granted:

- 1. If the course has direct equivalence to a Honolulu Community College course and is from a regionally accredited U.S. institution and meets the transfer credit requirements in effect at the time of approval.
- 2. If non-credit training has been evaluated by the American Council of Education (ACE) using guidebooks such as:
  - National Guide to the Educational Credit for Training Programs
  - The Guide to the Evaluation of Educational Experiences in the Armed Services
  - Guide to Educational Credit by Examination
- 3. If Honolulu Community College has a formal agreement with an institution/organization.

#### **Course Waivers and Substitutions** (Technical-Occupational Programs)

Note: It is strongly recommended that students consult their academic counselor before submitting a request for course waiver and substitution.

Recommendation for a course waiver is made by the Discipline Curriculum Liaison. For each course waiver there must be a recommended course substitution. At no time may a student graduate with fewer than the total number of required credits.

A student wishing to have a course waived or substituted must submit the Request for Course Waiver/Substitution form to the Records Office for transcripts. The Records Office will, in turn, submit the student's form and transcripts to the student's Discipline Curriculum Liaison. In all cases, the Discipline Curriculum

Liaison will confer with the Division Chairs of the programs involved. If agreement is reached, the Division Chairs will recommend approval or disapproval, giving the reason for the recommendation. They will forward the form to the Assistant Dean of the student's program for approval. Notice will then be sent to the Records Office. If the waiver and substitution is approved or disapproved, it will be noted on the student's academic record and the student will be notified of the approval or disapproval.

# Course Waivers and Substitutions (Liberal Arts)

A student must request a Liberal Arts course waiver and substitution form through a Pre-Major advisor or Academic Counselor.

The Registrar approves substitutions for Liberal Arts majors under the following conditions:

- Course waivers and substitutions may be made only in the area of HCC electives. Students may substitute other Honolulu Community College courses if the Dean of Academic Affairs or University College Dean agrees that the substitution will receive applicable transfer credit at the college to which the student intends to transfer.
- The substitution must not conflict with other requirements of the Honolulu Community College catalog for the year used for graduation (total credits, GPR, numbering, area requirements, writing intensive requirements, lab requirements).
- The substitution must satisfy the transfer AA degree definition of the University of Hawai'i articulation policy.

Approval will be noted on the student's academic record and the student will be notified of the decision.

#### Credit by Examination

Credit by examination is available in a few courses at Honolulu Community College. To be eligible to apply for credit by examination, students must be enrolled in a course other than the course for which the student is applying for credit by exam. Eligible students who learned the course content through previous training or experience but did not receive college credit for the course may apply for credit by examination following the procedures outlined below:

- 1. The student contacts the Division Chair to determine if credit by examination is available in the particular course the student wishes to challenge.
- 2. The student obtains the request form at the Records Office.
- 3. The student presents the request to the Division Chair who interviews the student and signs and forwards the request to the Assistant Dean for processing.
- 4. Upon completion of the examination, the examiner reports the result to the Dean for final approval. "CE" or "N" grade is recorded on the student's record. The "CE" grade is assigned if the student earns credit through credit by exam. The "N" grade is assigned if the student fails to earn credit through credit by exam.

# Repeating a Course (Policy under Review)

Students may repeat any course in which a **D**, **F**, **N**, **W**, or **L** was received. Credit is allowed only once for a repeated course. The first and all subsequent grades will remain on the student's record and all grades will be used to compute the grade point average and to determine academic status.

Certain courses may be repeated for additional credits. The course description in the catalog indicates whether or not a course is repeatable for additional credits.

If a student inappropriately repeats a course (i.e., in circumstances other than those described above), neither the credits nor grade points will be computed on the g.p.a.

Special Provision for Repeating Writing Intensive (WI) Courses

Students who receive a grade of C or higher in a course previously not designated as WI are not allowed to repeat the course to satisfy the WI requirement for the A.A. degree.

Special Provision for Repeating English (except ENG 20, 20B, C, D, E; LSK 30)

A student who receives a D, F, N, or W the first time may repeat the course without written approval. The student is strongly encouraged to consult with his or her Academic Counselor or previous instructor prior to repeating the course.

A student who receives a D, F, N, or W the second time must either:

obtain written approval from both the most recent instructor and the receiving instructor;

#### OR

register for the course during late registration on a space-available basis in order to take the course another time.

Special Provision for ENG 20, 20B, C, D, E; LSK 30; MATH 20B, C, D, E, F, G

Students who receive a grade of DR, I/N, N, or W the first time they take the course may repeat the course once without instructor approval.

Other students require written approval from

an ENG instructor in the
Library Building, Room 313
a MATH instructor in the
Library Building, Room 433C.

Exceptions

Any exceptions to the repeat policy must be approved by the Dean of Academic Affairs/designee.

#### Final Examinations

Final examinations are given during the Evaluation Period, as published in the Academic Calendar in this catalog and in the Schedule of Classes.

# **Grade Reports**

Grade reports are mailed to students at the end of each semester.

Each student is responsible for reporting any error on a grade report to the Records Office within ten days of receipt of the grade report.

#### Grading

Students are assigned grades based on standards of achievement established

by the instructor of each class. Students will be informed of these standards by the instructor. Written papers, participation in class discussion, performance on assigned projects, and mid-term and final examinations and other evaluative methods are used by instructors to assess achievement and assign grades. Instructors maintain office hours to provide special assistance to students outside of class.

# **Grading System**

The "Letter Grading System" is used to report student achievement or standing in most areas. The "Credit/No-Grade System" is used only in the courses in this catalog designated "Credit/No-Grade" (CE/N).

# Letter Grading System

| Grade | Grade<br>Points | Interpretation               |
|-------|-----------------|------------------------------|
| Α     | 4               | Excellent Achievement        |
| В     | 3               | Above Average Achievement    |
| С     | 2               | Average Achievement          |
| D     | 1               | Minimal Passing Achievement* |
| F     | 0               | Failure                      |
| W     | Not Computed    | Withdraw                     |
| Ν     | Not Computed    | No Grade                     |
| I     | Not Computed    | Incomplete                   |

<sup>\*</sup>Note: Some courses require a "C" grade for minimal passing.

## Credit-No Grade Grading System

| Grade | Grade<br>Points | Interpretation          |
|-------|-----------------|-------------------------|
| CE    | Not Computed    | Satisfactory Completion |
| Ν     | Not Computed    | No grade                |
| 1     | Not Computed    | Incomplete              |

#### "L" Grade

The "L" grade is recorded for an audited course.

#### "CE" Grade

The "CE" grade is used to denote passing work deserving of credit for all courses taken on the credit-no-grade grading scheme. It is also used to denote passing of a course through credit by examination.

#### Incomplete or "I" Grade

The "I" grade may be given to a student who has yet to complete a small but important part of the work in the course. The "I" will revert to the level of accomplishment obtained at the end of the course if the work is not made up. (For example, if "I/D" is assigned by the instructor and, if the student takes no further

action before the make-up deadline, the "I" grade will be changed to "D" after the make-up deadline.) In no case will "I" revert to a "W".

Instructors must submit make-up grades to the Records Office by March for the Fall Semester and by November for the Spring Semester and Summer Session. Students' deadlines are two weeks prior to this. See Academic Calendar for specific dates. A student is advised to contact the instructor and make arrangements for completing and for submitting make-up work well before these deadlines.

#### "N" Grade

The "N" grade indicates that the student has either a) not completed the requirements of the course or b) has not reached a level of accomplishment within a specified time period which will allow for an evaluation. This grade may also be used when a student fails to earn credit after challenging a course through "Credit by Examination" and may continue on the student's record indefinitely.

#### Withdraw or "W" Grade

The "W" is assigned to a course taken by a student who then formally withdraws from that course by the last day to withdraw from courses (see Academic Calendar).

- 1. Semester-length classes officially dropped during the first three weeks of instruction each semester will not appear on the student's academic record. Semester-length classes officially dropped after the first three weeks will be assigned a "W" on the academic record. Students may drop classes and receive a "W" grade up to the deadline stated in the Academic Calendar.
- 2. Classes that are not semester-length and are
  - a. dropped during the first 20% of calendar days within the published class dates will not appear on the transcript.
  - dropped after the first 20% and up to the first 50% of the calendar days within the published class dates will be assigned a grade of "W" on the academic record.

#### Grade Point Average (Ratio)

A student's grade point average is computed by dividing the student's total grade points earned by the total credits attempted, excluding credits for which grades of "W", "I", "CE", or "N" are assigned.

# How to Compute Your Grade-Point Average (Ratio)

| Grade |   | Points       |
|-------|---|--------------|
| Α     | = | 4            |
| В     | = | 3            |
| С     | = | 2            |
| D     | = | 1            |
| F     | = | 0            |
| W     |   | Not Computed |
| Ν     |   | Not Computed |
| 1     |   | Not Computed |
| CE    |   | Not Computed |

AU Not Computed

Total no. of grade equivalents by

Total no. of semester hours

Current G.P.A. (G.P.R.) = grade point average (ratio) for the current semester Cumulative G.P.A. (G.P.R.) = grade point average (ratio) for all semesters at HCC combined

AA G.P.A. (G.P.R.) - See AA degree section.

In accordance with the HCC repeat policy, some grades may be averaged. In accordance with the HCC transfer policy, transfer courses are not included in the G.P.A. calculations.

**Grade Change:** A student may request a change of grade up to a year from the date of receiving the grade for the course.

# Academic Probation and Suspension

The Academic Probation and Suspension Procedures serve to place a student on notice that academic performance is below minimum college standards. The intent of probation and suspension is to encourage a student to take necessary actions to become a successful student. Each student has an obligation to use the opportunity for publicly supported education effectively. Students on academic probation or suspension are strongly urged to seek the assistance of an Academic Counselor and limit their credit load to a maximum of 12 credits.

#### Academic Probation

A student will be placed on academic probation at the end of any fall or spring semester for any one of the following reasons:

- Cumulative grade point average is below 2.00.
   The student on academic probation for a cumulative grade point average below 2.00, may continue at the College if he or she maintains a *current* grade point average of 2.00 or higher for all credits graded. The regulations for probationary status apply.
- 2. Current semester grade point average is below 2.00 for all graded credits.

#### Academic Suspension

A student who fails to achieve at least a 2.00 current grade point average in all credits graded at the end of the Fall or Spring semester while on academic probation shall be suspended for one semester. Written notice of suspension will be sent by the Dean, to each suspended student.

#### Appeal for Readmission Following Suspension

Appeal without a break of enrollment. A suspended student may appeal, in writing, to the Committee on Academic Standing. Instructions on filing an appeal are included in the notice of suspension. If the appeal is accepted, the student's academic status is, "readmitted following suspension." The student must achieve a current grade point average of at least 2.00 or face dismissal.

Readmission following Summer Session Enrollment. A student on suspen-

sion from Spring is permitted to attend Honolulu Community College's Summer Session(s) and may register for 3–6 credits. If the student's Summer Session current grade point average is 2.50 or above, the student's academic status will be changed to "probation". The rules for "probation" academic status apply.

Appeal following a break of enrollment. A student who has been suspended from the College and who has not been enrolled for one or more Fall or Spring semesters, may petition for readmission following suspension by completing a petition with an Admissions Counselor. Appeal forms are available from the Admissions Office.

After readmission, the student will be placed on probation until the minimum academic standards to clear probation, as outlined in the section on probation, are met.

#### Dismissal

During the first semester after readmission from suspension, a student who fails to earn a current grade point average of at least 2.00 in all credits graded will be dismissed. Written notification of dismissal will be sent to each dismissed student. Instructions regarding readmission after dismissal will be included in the written notification of dismissal. Regulations governing academic dismissal will be applied at the end of each Fall and Spring semester. Dismissed students cannot attend Honolulu Community College for at least one semester before applying for readmission. A student, who has been dismissed from the College and who has not been enrolled for one or more Fall or Spring semesters, may petition for readmission following dismissal by completing a petition with an Admissions Counselor. Appeal forms are available from the Admissions Office.

#### Scholastic Honors

Effective Fall 1998, students who meet the following criteria will earn a place on the Dean's List:

- A minimum of six credits of letter grade courses completed in the semester of eliqibility.
- 2. A cumulative grade point ratio of 3.0.
- 3. The grade point qualification of 3.6 in the semester of eligibility.
- 4. No N's, I's, or F's, and a maximum of one W in the semester of eligibility. A student will not be named retroactively to the Dean's List based on any change of grade submitted after the applicable end-of-semester deadline.\*
- 5. Minimum of twelve credits earned at HCC. (The 12 credits may have been earned during or before the term for which the student is being considered for the Dean's List.)
- \*Students named to the Dean's List shall be so informed in writing by the Dean of Instruction. If a student believes that he/she should have been named to the Dean's List but was not, the student is encouraged to make a timely inquiry of the Dean of Academic Affairs or designee.

Interested students may choose to join Phi Theta Kappa, a national honors society for community college students. Interested scholars should contact the Office of the Dean of Academic Affairs.

To graduate with honors, students must earn at least 24 credits of work at

Honolulu Community College and have a cumulative grade point average of 3.50 or better.

# **Transcript Requests**

A student must file a written request for official transcripts at the Records Office. A minimum of seven working days should be allowed for the processing of requests. See Transcript Fee.

# Transferability of HCC Credits

Decisions concerning the acceptance of credits by an institution other than the granting institution are made at the sole discretion of the receiving institution. No representation is made whatsoever concerning the transferability of any credits to any institution.

Students considering continuing their education at, or transferring to other institutions must not assume that credits earned at this school will be accepted by the receiving institution. An institution's accreditation does not guarantee that credits earned at that institution will be accepted for transfer by any other institution. Students must contact the receiving institution to determine what credits, if any, that institution will accept.

# College-Credit Equivalency

Honolulu Community College recognizes that there are experiences outside of the college classroom that can provide college-level competency. Students with such life experiences may choose to validate their expertise through a number of evaluation procedures. Students should be aware, however, that transfer credits awarded by HCC may be reevaluated and not necessarily accepted by another institution upon transfer or the student from Honolulu Community College to that institution.

#### Nationwide Equivalency Examination

Students may apply for credits by having official transcripts sent to the Records Office for examination programs administered by the College Entrance Examination Board of The College Board with the assistance of the Educational Testing Service. These examinations include the College Level Examination Program (CLEP), the Advanced Placement (AP) examinations, and the Defense Activity for Nontraditional Educational Support (DANTES), a testing service provided The Chauncey Group International and a subsidiary of Educational Testing Service. HCC does not give any of these examinations at this time. A list of accepted tests and cutoff scores for transfer of credit may be obtained from the Admissions and Counseling Office.

- 1. The student contacts the Division Chair to determine if credit by examination is available for the particular course the student wishes to challenge. Whether or not a course is appropriate for this process is decided by the faculty member who will create and evaluate the examination for that course.
- 2. The student obtains a request form at the Records Office.
- The student presents the request to the Division Chair, who interviews the student and signs and forwards the request to the appropriate Dean of program for processing.

- 4. The student will complete the examination prepared for the course at a time set by the examiner.
- 5. Upon completion of the examination, the examiner records the result. A "CE" or "N" grade is recorded on the student's record. The "CE" grade is assigned if the student earns credit through credit by examination. To earn credit, a student must pass the examination with the equivalent of a "C" grade or higher. The "N" grade is assigned if the student fails to earn credit through credit by examination.
- 6. Students will be charged for a course challenged for credit by examination at the prevailing fee regardless of the outcome of the examination.

#### College Transfer Credit

Courses completed with a grade of "D" or better at other regionally accredited colleges and universities may be transferred. The transcript will be evaluated in relation to a specific degree or certificate. If a student changes majors, he or she may have his or her transcripts reevaluated. AARTS/SMARTS transcripts sent directly to the college will be evaluated and appropriate credits granted toward a specific degree. The College reserves the right to reject recommendations made by the ACE guidelines. It is the responsibility of the student to have official transcripts sent directly to the Records Office along with course descriptions.

#### Credit for Non-Collegiate Training

Proper documentation of training must be provided to the program that would be accepting credit in transfer. Course credit recommendations provided by the American Council on Education (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. The HCC Request for Articulation of Non-Collegiate Credits form is available in the Admissions and Counseling Office.

#### **Correspondence Courses**

Correspondence courses are not accepted in transfer unless proof of proctored examinations and grading system is provided by the course source, and it is acceptable to the appropriate program faculty.

#### Foreign Colleges and Universities

Credits earned in institutions of higher education in foreign countries may be transferred in some cases. Official transcripts must be sent directly to the Records Office at HCC and transcripts and related documents are to include course descriptions and must have certified English translations attached. Students are advised to check with the Records Office before ordering transcripts to see if transfer of credit will be considered.

FAMILY EDUCATIONAL RIGHTS
AND PRIVACY OF STUDENTS

Notification of Rights Under FERPA

Pursuant to Section 99.7 of the rules and regulations governing the *Family Educational Rights and Privacy Act of 1974* (hereinafter the Act), students in attendance at Honolulu Community College are hereby notified of the following:

- 1. It is the policy of Honolulu 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 the Act, which protect the privacy rights of students.
- 2. The Family Educational Rights and Privacy Act (FERPA) affords students certain rights with respect to their education records. They are:
  - a. The right to inspect and review the student's education records within 45 days of the day the University receives a request for access. Students should submit to the registrar, dean, head of the academic department, or other appropriate official, written requests that identify the record(s) they wish to inspect. The University 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 University official to whom the request was submitted, that official shall advise the student of the correct official to whom the request should be addressed.
  - b. The right to request the amendment of the student's education records that the student believes are inaccurate or misleading. Students may ask the University to amend a record that they believe is inaccurate or misleading. They should write the University official responsible for the record, clearly identify the part of the record they want changed, and specify why it is inaccurate or misleading. If the University decides not to amend the record as requested by the student, the University will notify the student of the decision and advise the student of his or her 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.
  - c. The right to consent to disclosures of personally identifiable information contained in the student's education records, except to the extent that FERPA authorizes disclosure without consent.
    - One exception which permits disclosure without consent is disclosure to school officials with legitimate educational interests. A school official is a person employed by the University in an administrative, supervisory, academic or research, or support staff position (including law enforcement unit personnel and health staff); a person or company with whom the University has contracted (such as an attorney, auditor, or collection agent); a person serving on the Board of Trustees; or a student serving on an official committee, such as a disciplinary or grievance committee, or assisting another school official in performing his or her tasks.

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 responsibility.

d. The right to file a complaint with the U.S. Department of Education concerning alleged failures by State University to comply with the requirements of FERPA. The name and address of the Office that administers FERPA are:

> Family Policy Compliance Office U.S. Department of Education 600 Independence Avenue, SW Washington, DC 20202-4605

- 3. Students are advised that institutional policy and procedures required under the Act have been published as Administrative Procedure A7.022, Procedures Relating to Protection of the Educational Rights and Privacy of Students. Copies of AP A7.022 may be obtained from the Records Office, Honolulu Community College.
- 4. Directory Information

Students are advised that certain personally identifiable information listed below is considered by the College to be Directory Information and, in response to public inquiry, may be disclosed in conformance with State law, at the College's discretion, without prior consent of the student unless the student otherwise so informs the College not to disclose such information.

- Name of student.
- b. Local address and zip code.
- c. Local telephone number.
- d. Major field of study.
- e. Educational level (i.e. freshman, sophomore, etc.)
- f. Fact of participation in officially recognized activities and sports.
- a. Weight and height of members of athletic teams.
- h. Dates of attendance.
- i. Most recent educational institution attended.
- j. Degrees, academic honors, and awards received.
- k. E-mail address.
- I. Enrollment status (full-time and part-time).

A student has the right to request that any or all of the above items not be designated Directory Information with respect to that student. Should a student wish to exercise this right, he or she must in person and in writing, not earlier than the first day of instruction nor later than fourteen calendar days from the first day of instruction for the academic term or semester, or the fourth day of a summer session, inform the Records Office which of the above items are not to be disclosed without prior consent of that student.

5. A parent or spouse of a student is advised that information contained in educational records, except as may be determined to be Directory Information, will not be disclosed to him/her without the prior written consent of the son, daughter or spouse.



# **Tuition and Fees**

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

# Schedule of Tuition and Fees (Per Semester)

All required tuition and fees must be paid by the student at the time of registration or *registration will* be cancelled. Students in need of financial aid may be assisted through the financial aid program of the College, or in unusual cases by short term emergency loans if available. Additional charges may apply.

## Resident Tuition (per semester)

| Tuition                 | \$45.00/credit |
|-------------------------|----------------|
| Activity Fee            | \$ 0.50-\$5.00 |
| Student Publication Fee | \$ 5.00        |
| Student Life Fee        | \$ 5.00        |

# Non-Resident Tuition (per semester)

| Tuition                 | \$2 | 42.00/credit |
|-------------------------|-----|--------------|
| Activity Fee            | \$  | 0.50-\$5.00  |
| Student Publication Fee | \$  | 5.00         |
| Student Life Fee        | \$  | 5.00         |

# Summer and Off Campus Education Tuition Schedule

Residents \$105.00 per credit Non-residents \$138.00 per credit

#### **Deferred Payment of Tuition**

Except for published payment deadlines for each term, University of Hawai'i System policy forbids a student to register under a deferred payment of tuition arrangement.

#### Non-Credit Course Tuition and Fees

Apprentice & Journey Worker: \$.35 per clock hour.

Fees for other non-credit courses vary. See course announcements for details.

# Non-Resident Application Fee

For non-residents, there is an application evaluation fee of \$25, except summer.

# Student Activity Fee (Not assessed for Summer Session)

1–9 credits – \$.50 per credit 10 credits and above – \$5.00 (flat rate)

#### Student Publication Fee

\$5.00 per student per semester (Not assessed for Summer Session)

#### Telecourse Fee

Charges for telecourses are based on the prevailing tuition & fee schedule. A telecourse fee is added to cover licensing to the copyright holder.

Late Registration Fee: \$30.00

#### Change of Registration Fee

A fee of \$5.00 is charged each time a student completes a Change of Registration Form to add or drop a class or classes. In the event a student adds a course(s), there is the tuition balance in addition to the change fee, if applicable (see Schedule of Tuition).

## Credit by Examination Charges

Charges for Credit by Examination are based on the prevailing tuition and fee schedule.

#### Transcript Fee

No fee is charged for a transcript that is sent to the Admissions and Records Office of a campus within the University of Hawai'i System. A \$3.00 fee is charged for each transcript that is sent outside of the University of Hawai'i System or for student copies. Additional postage fees are charged for a transcript that is sent outside of the United States. Rush request: \$10.00 per copy for 24 hour processing.

# Fee for a Copy of an Educational Record

A fee of two dollar (\$2.00) is assessed a student who requests a copy of his or her educational record on each occasion a copy of such a record is requested. A student is charged \$2.00 for each copy of a fee statement or other educational records.

# Financial Obligations to the College

See Student Services, Student Regulations.

#### Fee for Dishonored Checks

A \$15.00 service charge plus interest will be assessed for checks that are made out to Honolulu Community College and returned for any cause.

#### Graduation Fee

See Degrees and Certificates, Graduation Information.

#### **Child Care Fees**

A semester fee payable in four installments is charged. Your child may not be allowed to continue if fees are not paid according to the payment schedule.

There is a \$25 fee to hold the child's space in the program after notification of acceptance.

For information about current fees and payment schedule, call 845-9466.

Financial Aid may be used for child care expenses. Contact the Financial Aid Office at 845-9116.

# Senior Citizens Visitor Program

Although UH policy no longer provides tuition waivers for senior citizens, there are provisions for seniors who are not seeking credit. The Senior Citizens Visitor Program is available for seniors who are sixty years of age or older on the first day of instruction and who are residents of the State of Hawaii.

Contact the Admissions Office (808) 845-9129 for more information.

# Faculty/Staff Tuition Waiver

Faculty and staff may apply for a tuition waiver through the Dean of Academic Affairs' office and register last on a space available basis. Those wishing to register at their regularly scheduled time may do so but must then pay full tuition and fees. Any prepaid tuition will not be reimbursed for a waiver.

#### Other Tuition Waivers

See Financial Aid.

#### College Catalog

The College Catalog may be purchased at the College Bookstore. Postage and handling charges will be assessed.

# Cost of Books, Tools, and Other Supplies

The cost of textbooks, tools and other supplies varies with the program and is noted in the degrees or program description sections of this catalog.

#### **Refunds** (Check Academic Calendar for Refund Schedule)

The following students are eligible to receive refunds:

- Students withdrawing completely from College (see Complete Withdrawal from College)
- 2. Full-time students changing to part-time status.

- 3. Part-time students reducing credit load.
- 4. Students dropping classes because of administrative cancellations and students dropped as "No-Shows" by instructors.

Refunds of less than \$1.00 will not be made.

Some refunds are subject to federal refund regulations. Contact the Financial Aid Office for more information.

#### **Procedure**

To obtain a refund, students must process a Change of Registration Form at the Records Office and at the Business Office by the times noted in the Refund Policies below. In addition, students completely withdrawing from College must also submit the Complete Withdrawal form. Refunds will be processed according to the schedules below.

Tuition and Special Course Fees Refund Policy – Regular Academic Semester:

In the event a student initiates before the fourth week of instruction a complete withdrawal from the College, change from full-time to part-time status, or change from one tuition rate to another, if applicable, tuition and special course fees are refunded as indicated below:

- 1. 100% refund for complete withdrawal only if made on or before the last day of late registration (add period).
- 100% refund for change in status or tuition rate if made on or before the last day of late registration (add period), unless otherwise stipulated by federal regulations.
- 3. 50% refund for complete withdrawal or change in status or tuition rate if made after the late registration period (add period) but on or before the end of the refund period (third week of instruction), unless otherwise stipulated by federal regulations.
- 4. 0% refund if complete withdrawal or change in status or tuition rate is made after the refund period, unless otherwise stipulated by federal regulations.

When changes by the College to the published schedule of classes precipitate a complete withdrawal, or a change from full-time to part-time status, or a change from one tuition rate to another rate, and the changes to the published schedule have occurred after the student registered, tuition and special course fees are refunded as indicated below upon approval of the Dean.

 100% refund if complete withdrawal is necessary and if application for refund is made within two weeks of the date of the change(s) to the published schedule.

2. The difference between the amount assessed at registration at the start of the semester and the amount assessed due to change in status or tuition rate if such a change is necessary and if application for refund is made with in two weeks of the date of the change(s) to the published schedule.

# Student Activity Fee Refund Policy:

- 1. 100% refund of student activity fee if complete withdrawal is made on or before the last day of late registration (add period).
- 2 No refunds of less than a dollar

# Payment of Refunds

For a partial withdrawal, the student should receive the refund within four weeks following the end of the 50% refund period. For a complete withdrawal, the student should receive the refund within four weeks following the withdrawal date.

Tuition and Special Course Fees Refund Policy — Continuing Education, Summer Session, and other Short-Term Courses

- 1. The refund period shall be 20% of the instructional period. The instructional period includes all calendar days beginning from the first day of instruction and ending on the last day of instruction. No refunds will be made for courses where the instructional period is 10 days or less, except before the first day of instruction. Refunds for credit courses that are not semester long shall be as follows:
  - a. 100% refund for complete withdrawal only if made on or before the last day before the first day of instruction.
  - b. 50% refund for complete withdrawal or change in status or tuition rate if made on or after the first day of instruction but on or before the end of the refund period as defined above, unless otherwise stipulated by federal regulations.
- 2. For non-credit courses or workshops:
  - a. One to five weeks in length 100% refund for complete withdrawal if made on or before the last working day before the first day of class meeting; thereafter no refund.
  - b. Six weeks or longer 100% refund for complete withdrawal if made on or before fifth working day has elapsed after the first day of class instruction; thereafter no refund.



Student Services One-Stop Center.

# **Parking**

1. Parking permits will be sold during registration. Specific dates and procedures are included in the registration information packet.

- 2. Student must present:
  - a) Current Fee Statement
  - b) Current Vehicle Registration
  - c) Current Proof of Insurance Coverage (No-Fault Card)
  - d) Current Safety Check Certificate
  - e) Current Driver's License
- 3. Students may purchase permits (cash and checks only) for the following zones:
  - a) High Demand Zone (1, 3, 5) \$20.00/semester
  - b) Low Demand Zone (8) \$15.00/semester
  - c) Evening on campus, 3:00 pm-10:00 pm \$7.00/semester

See map inside the back cover for zone location

- 4. Multi-car or pool permits may be issued to applicants who expect to drive two motor vehicles or participate in a car pool for an additional charge of \$1.00 per semester per vehicle. Such permits will allow only one vehicle at a time to be parked on the campus. Violators will be issued a citation.
- 5. Students attending evening classes are encouraged to purchase evening parking permits and park in Zones (1, 2). Off-campus parking surrounding the campus is on poorly lit and isolated streets. Parking on campus closer to classrooms is strongly recommended.
- 6. Students with Zone 8 permits will be allowed to park in Zone 1, 3 and 7 on a space available basis after 12:00 noon.



Aeronautics Maintenance Program

# Degrees and Certificates

# **Degrees and Certificates**

#### GRADUATION INFORMATION

# **Eligibility for Graduation**

Graduation requirements are based on approved program requirements. (Graduation options do not apply to course registration. Students must meet current requirements to register for a class.)

In determining graduation eligibility, the terms "major courses" and "courses in the major" and "credits in the major" refer to the following:

- (1) Courses which are trade specific, i.e., the course title or the course description indicates that the course is specifically for students in the major (e.g., CHEM 55 for Cosmetology Majors),
- (2) Courses which satisfy program requirements and have the Alpha associated with the major (e.g., WELD 20 for Welding program but not WELD 19).

For A.S., A.A.S. and A.T.S. programs, the final twelve (12) credits in the major (as defined above) must be earned from Honolulu Community College. For the Applied Trades Degree, any twelve (12) credits that may be applied to the A.A.S. degree and earned at Honolulu Community College, including credits converted from a Honolulu Community College apprenticeship program, will satisfy this requirement. This requirement may be waived for cause at the option of the Dean of Academic Affairs or Provost. The Provost may approve use of credit by examination to meet this requirement (by his/her discretion).

For the A.A. degree, the final twelve (12) credits towards the degree or thirty (30) credits applicable to the degree must be earned from Honolulu Community College. This requirement may be waived for cause at the option of the Dean of Academic Affairs or Provost. The Provost may approve use of credit by examination to meet this requirement (by his/her discretion).

# **Graduation Options**

Enrolled Students: (students maintaining continuous enrollment at Honolulu Community College) may be graduated according to

- the requirements in effect at the time they enrolled or
- the requirements in effect at the time of graduation

Students who change their major while enrolled may be graduated according to

- the requirements of their major in effect at the time they changed their major or
- the requirements in effect at the time of graduation

Important: Students who have a break in enrollment and apply for graduation will be graduated according to the requirements in effect at the time of graduation. If the break in enrollment has been less than one year, the student has the option of following the requirements for enrolled students. Please see the current HCC catalog for more details.

#### Time Within Which Work Must Be Completed

The normal expectation is that students will complete their academic work in a ten-year period. Credits earned more than ten years ago in courses which have materially changed content or standards will be denied.

# **Application For Graduation**

Students should consult with their Academic Counselor for a graduation evaluation before registering for their final semester.

Candidates for the Certificate of Achievement, Associate in Arts, Associate in Applied Science and Associate in Science degrees must file an application for graduation with the Records Office as follows:

Applications received after the announced deadline will be processed for graduation in the following semester.

A \$15.00 graduation fee is payable at the time a student submits an application for graduation. This covers the cost of ordering and printing the diploma\* and cover. If the student does not graduate that semester, the fee will be applied to the semester he or she graduates. However, another application for graduation must be filed with the Records Office by the announced deadline.

Participants will be charged a fee if the Graduation Committee decides to require caps and gowns for graduation. Graduation ceremonies are conducted only during the Spring semester; however, the previous Fall semester graduates are eligible and are invited to participate in the ceremonies.

Candidates for the Certificate of Completion and Certificate of Competence must file an application with the Records Office by the last day of the semester. No fee is charged and no graduation exercises accompany the award.

\* \$15 extra for Hawaiian Language diploma

# UH COMMUNITY COLLEGES ACADEMIC CREDENTIALS CERTIFICATES & COMPETENCIES

# CERTIFICATE OF ATTENDANCE

A document issued to students who have attended credit or non-credit courses

or activities which do not meet the requirements for other certificates or degrees. This certificate does not reflect academic performances and no performance evaluation is implied by its issuance.

#### CERTIFICATE OF COMPETENCE

A college credential for students who have successfully completed designated short-term *credit* or non-credit courses which provide them with job upgrading or entry-level skills. Credit course sequences shall not exceed 9 credit hours. The issuance of a Certificate of Competence requires that the student's work has been evaluated and determined to be satisfactory. In a credit course sequence the student must earn a GPA of 2.00 or better for all courses required in the certificate. There are no graduation exercises accompanying the award.

#### ACADEMIC SUBJECT CERTIFICATE

A college credential for students who have successfully completed a specific sequence of *credit* courses from the A.A. curriculum. The sequence must fit with-

in the structure of the A.A. degree, may not extend the credits required for the A.A. 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 2.00 or better for all courses required in the certificate.

#### CERTIFICATE OF COMPLETION

A college credential for students who have successfully completed designated short-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 10 credit hours, but may not exceed 23 credit hours. There are no graduation exercises accompanying the award. The issuance of a Certificate of Completion requires that the student must earn a GPA of 2.00 or better for all courses required in the certificate.

#### CERTIFICATE OF ACHIEVEMENT

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 or 2.00 or better for all courses required in the certificate.

- Credits earned in MATH 20B&C&D, ENG 20, ENG 20B&C&D&E, ELI courses; ESL courses, or SD 95 may not be used to fulfill Certificate of Achievement requirements.
- Students must have completed ENG 20B&C&D or place higher than ENG 20B&C&D on the English placement test.
- Students must have completed MATH 20B&C&D or place higher than MATH 20B&C&D on the Mathematics placement test. MATH 21 does not meet this requirement.
- Residency: The final 12 credits in the major must be taken at Honolulu Community College. The residency requirement may be waived for cause at the option of the Dean or Provost. The Provost may approve use of credit by examination to meet residency requirements at his discretion.

# **TECHNICAL-OCCUPATIONAL DEGREES**

Beginning with the 1996-97 academic year, certain technical-occupational programs began to offer the Associate in Applied Science (A.A.S.) degree, while others offer Associate in Science (A.S.) degree. In addition, a customized degree opportunity, the Associate in Technical Studies (A.T.S.) degree is available. The definitions follow:

#### ASSOCIATE IN SCIENCE (A.S.) DEGREE

A two-year technical-occupational-professional degree, consisting of at least 60 semester credits, which provides students with skills and competencies for gainful employment, entirely at the baccalaureate level. The issuance of an A.S. degree requires that the student must earn a GPA of 2.00 or better for all courses applicable toward the degree.

# ASSOCIATE IN APPLIED SCIENCE (A.A.S.) DEGREE

A two-year technical-occupational-professional degree, consisting of at least 60 semester credits, which provides students with skills and competencies for gainful employment. This degree is not intended nor designed for transfer directly into a baccalaureate program. A.A.S. programs may, however, include some baccalaureate level course offerings. The issuance of an A.A.S. degree requires that the student must earn a GPA of 2.00 or better for all courses applicable toward the degree.

# ASSOCIATE IN TECHNICAL STUDIES (A.T.S.) DEGREE

A two-year technical-occupational-professional degree, consisting of at least 60 semester credits, which provides students with skills and competencies for gainful employment. This degree must be customized by using courses from two or more existing approved programs and is intended to target emerging career areas which cross traditional boundaries. This degree must have educational objectives which are clearly defined and recognized by business, industry, and employers who have needs for specialized training for a limited number of employees. This degree must have advanced approval, and cannot be requested based upon previously completed coursework. The issuance of an A.T.S. degree requires that the student must earn a GPA of 2.00 or better for all courses applicable toward the degree.

It is important that students consult with major program advisors or Academic Counselors when preparing their courses of study to ensure that the proper sequence is followed. The responsibility for meeting program requirements rests with the student.

#### COMPETENCIES FOR CERTIFICATES

Students who receive certificates from Honolulu Community College should demonstrate defined competencies. Specific competencies are described in the Honolulu Community College online catalog at

http://www.hcc.hawaii.edu/hccinfo/pubs/catmenu.html

### COMPETENCIES FOR THE A.S., A.A.S., AND A.T.S. DEGREES

Graduates of Honolulu Community College who complete one of the technicaloccupational degrees should be able to

- Demonstrate competence in a selected program of study
- Demonstrate basic proficiency in English and Math
- Demonstrate by course completion communication and quantitative or logical reasoning skills useful in the career field
- Demonstrate by course completion skills useful to function in society and/or understanding of the natural environment, the social environment, and/or world cultures and values

More specific program competencies are described in the Honolulu Community College online catalog at http://www.hcc.hawaii.edu/hccinfo/pubs/catmenu.html

# Requirements for the Associate in Science Degree, the Associate in Applied Science Degree, and the Associate in Technical Studies Degree

 Credits earned in MATH 20B&C&D&E&F&G, ENG 20, ENG 20B&C&D&E, ELI courses, ESL courses, or SD 95 may not be used to fulfill degree requirements.

- Students must have completed ENG 20B&C&D or ESL 11&13&17 or place into ENG 21/51 or higher on the English placement test.
- Students must have completed MATH 20B&C&D or place higher than MATH 20B&C&D on the Mathematics placement test. MATH 21 does not meet this requirement.
- General Education

Only active courses are listed. Obsolete courses effective as general education courses Fall 1979 to the present continue to satisfy a requirement in the same category as when they were active.

Minimum general education requirements:

15 credits

- (1) Skills (must include one course from each category)
  - (a) Communications

DRAM 20

ENG 21, 22, 51, 60, 100, 120

**HUM 35** 

SP 20, 151, 200

(b) Quantitative or Logical Reasoning

EE 150

ICS 111, 141, 151C, 211, 241

MATH 24, 25, 27, 50, 53, 55, 58, 100, 107, 115, 135, 140, 205,

206, 231, 232

PHIL 50, 110

QM 121, 122

- (2) Other areas (must include courses from at least three of the categories listed below)
  - (a) Understanding the natural environment (For hyphenated courses, each part equals one course, e.g., CHEM 100 is one course and CHEM 100L is one course.)

ANTH 20, 215

**ASTR 110** 

BIOL 22, 100

BOT 101-101L, 130-130L

CE 113, 211, 271

CHEM 100-100L, 105, 151-151L, 152-152L, 161-161L, 162-162L

ED 200 (non-HSERV majors)

FSHN 75, 185

**GEOG 101** 

GG 101, 103

IS 40, 100 (IS 100 may count under any one of the "Other Areas")

ME 113

MET 101

MICR 125, 130-140

OCN 180, 190, 201, 230

PHYS 51V, 53, 55, 56, 100-100L, 130, 151-151L,

152-152L, 170-170L, 272-272L, 274

SCI 101, 121, 122, 225-225L

ZOOL 101, 200

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(b) Functioning effectively in society
    COM 50
    ECON 18
    ED 135 (non-HSERV major)
    ENG 102, 210
    ENT 100
    FAMR 100, 141, 296 (For non-HSERV majors)
    FSHN 19, 184
    HE 153, 260
    HUM 36
    ICS 100, 100E, 100M, 100T, 101, 113
    IS 100 (IS 100 may count under any one of the "Other Areas")
    JOUR 205
    JPNS 30, 31
    LSK 30, 100
    MGT 20
    POLS 24
    PSY 54, 170
    SD 21, 85, 85B, 85C, 90B, 90C
    SOSE 21, 22, 55, 270 (For non-HSERV (Community Service) majors)
    SP 251, 253
    SSCI 41, 42
(c) Understanding the social environment
    AMST 211, 212
    AEC 135
    BOT 105
    BUS 20
    CA 101
    ECON 120, 130, 131, 211
    ED 105, 234 (For Non-HSERV majors)
    ENT 120
    FAMR 133, 230, 231, 232, 244 (For non-HSERV majors)
    FIRE 100 (For non-FIRE majors)
    GEOG 22, 102, 151
    HWST 105
    HPER 195 (For non-HSER (Community Service) majors)
    HUM 60, 151
    IS 100 (IS 100 may count under any one of the "Other Areas")
    JOUR 150
    OESM 101 (For non-OESM majors)
    POLS 110, 120, 130, 171, 190, 271
    PSY 100, 180, 240, 250, 260
    REL 151
    SOC 22, 100, 200, 214, 218, 231, 251
    SSCI 40, 120, 125
    SW 200 (For non-HSER (Community Service) majors)
    WS 151
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(d) Understanding and appreciating world cultures and values
    AMST 201, 202
    ANTH 150, 200, 210
    ART 30, 100, 101, 104, 107, 113, 114, 115, 170, 180, 264
    ASAN 100, 29
    CA 100
    CHNS 101, 102, EALL 271, 272
    ENG 250, 251, 252, 253, 254, 255, 256, 257
    FR 101, 102
    FT 111 (For non-FT majors)
    HAW 101, 102, 201, 202, 261
    HWST 24, 107, 212, 231
    HIST 23, 24, 27, 30, 32, 151, 152, 182, 231, 232, 241, 242, 281,
       282, 284
    HUM 20, 37
    IS 100 (IS 100 may count under any one of the "Other Areas")
    JPNS 24, 101, 102, 201, 202
    LING 102
    MUS 106, 108, 121D, 122D, 253
    PHIL 100, 101, 120, 200, 201, 202, 255
    REL 20, 150, 200, 201, 203, 204, 205, 210
    SPAN 101, 102
    SSCI 220, 221, 225
    TAG 101, 102
    THEA 101, 201
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- Courses required by major program (see Programs and Courses section of catalog).
- Electives as needed to meet total credit hour requirements.
- For A.S., A.A.S. and A.T.S. programs, the final twelve (12) credits in the major (as defined above) must be earned from Honolulu Community College. For the Applied Trades Degree, any twelve (12) credits which may be applied to the A.A.S. degree and earned at Honolulu Community College, including credits converted from a Honolulu Community College apprenticeship program, will satisfy this requirement. This requirement may be waived for cause at the option of the Dean of Academic Affairs or Provost. The Provost may approve use of credit by examination to meet this requirement (by his/her discretion).

# LIBERAL ARTS

# ASSOCIATE IN ARTS (A.A.) DEGREE PROGRAM

Associate in Arts (A.A.) degree: a two-year liberal arts degree consisting of at least 60 semester credits at the 100 and 200 levels, which provides students with skills and competencies essential for successful completion of a baccalaureate degree, entirely at the baccalaureate level. This degree should be in conformance with the recommendations listed in the "Associate in Arts Student Degree Level Competencies", and meets the core distribution requirements outlined in Attachment 1 of the Executive Policy on Articulation E5.209 (Appendix 1). The issuance of an A.A. degree requires that the student must earn a GPA of 2.00 or better for all courses applicable toward the degree.

Consult a Liberal Arts Academic Counselor or Pre-Major Advisor (Pre-Business, Pre-Education, Pre-Engineering) for assistance in planning your courses so they match the graduation requirements for the Bachelor's degree program to which you plan to transfer.

Courses in the A.A. degree are all numbered 100 and above and are likely to be transferable to any university. A transferable course, however, may not be applicable to a particular program or major. Deciding on a major at the transfer institution, tentative as it may be, helps you plan what courses you select in the

A.A. degree. It is highly recommended that students work with a Career Counselor early in their education at HCC for assistance in selecting a major.

While not required, it is strongly recommended that students complete the A.A. degree before transferring to pursue their bachelor degree. If carefully planned, all or most of the freshmen and sophomore level requirements can be completed through the A.A. degree. Studies indicate that students transferring with a higher number of credits are generally more successful in attaining their educational goals.

For more detailed information on how to apply and transfer, contact the upper division school directly or see the HCC Liberal Arts/Transfer Counselors for assistance. Be aware of application deadlines for individual schools. (For UHM: May 1 for the fall semester and November 1 for the spring semester.) Some programs at UHM have earlier deadlines. Official transcripts from all colleges must be received by the application deadline.

College catalogs are published once per year or less frequently and do not always reflect the most recent campus actions involving core courses. For the most recent information concerning core courses, students should check with their advisors and the Student Transfer Handbook, which is published twice per year, during the months of October and March. Copies of the handbook are available at counseling/academic advising and the library.

Enrollment in most transfer level courses requires either completion of English 20B&C&D&E or ESL 11&13&17 or placement into English 22/60 or higher. Liberal Arts students are strongly encouraged to complete English 100 and the mathematical/logical reasoning requirement as early as possible.

The cost for books can be estimated at approximately \$150-\$200 per semester for full-time Liberal Arts majors.

# University of Hawai'i Statement on the Acceptance of the Associate in Arts Degree in Fulfillment of General Education Requirements at All UH Campuses

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

#### Transfer Requirements of UH-Manoa and UH-Hilo

- 1. Complete 24 transferable credits (numbered 100 and above) by the time of application. Some programs may have specific admission requirements.
- 2. Have a 2.0 (residents) or 2.5 (non-residents) grade-point average of all transferable credits from all colleges.
  - Some programs at UHM have higher G.P.A. requirements.
  - While your HCC grade-point average is not transferable, it is considered for admissions purposes.
  - "D" grades from the UH system are accepted for general admissions to UHM but it may not be acceptable for graduation requirements for some programs.
- 3. Those who do not have 24 transferable credits are subject to the same admission requirements as entering freshmen such as satisfactory high school transcripts and official scores of the Scholastic Assessment Test (SAT) or the American College Test (ACT).

#### Transfer Requirements of UH-West Oahu

Completion of an A.A. degree with a GPA of 2.0 or higher or at least 55 of transferable lower-division courses (numbered 100 and above) with a GPA of 2.0 or higher from an accredited college or university, provided that these courses fulfill the general education requirements at UH-West Oahu.

#### Competencies for the A.A. degree

Graduates of Honolulu Community College who complete an Associate in Arts degree should be able to

- Employ skills and knowledge in communication, quantitative or logical thinking, and history essential to upper division college work
- Demonstrate basic proficiency in Math
- Demonstrate proficiency in expository writing
- Demonstrate by course completion understanding of some arts, humanities, natural sciences, and social sciences
- Follow steps employed in the scientific method as used in natural sciences

More specific competencies are described in the Honolulu Community College online catalog at <a href="http://www.hcc.hawaii.edu/catalog/index.html">http://www.hcc.hawaii.edu/catalog/index.html</a>.

If you enrolled at Honolulu Community College from Fall 2002, use the core and graduation requirements listed here.

### Associate in Arts Degree Requirements

As part of the University of Hawaii System of Colleges and Universities, Honolulu Community College has, since 1975, coordinated its Associate of Arts General Education Requirements with the University of Hawaii Manoa.

The UH Board of Regents approved a major revision of the UH Manoa General Education and Graduation Requirements at its June 2000 meeting with an effective date of Fall 2001. These new UH Manoa core/graduation requirements are reflected in the Honolulu Community College Associate of Arts Degree Program below, subject to the approval of the President of the University of Hawaii System.

Honolulu Community College's A.A. General Education Core also prepares students to transfer to an array of Mainland and Hawaii institutions, including specific articulation agreements with University of Hawaii West Oahu, University of Hawaii Hilo, Hawaii Pacific University, and Chaminade University.

Honolulu Community College A.A. Degree Requirements:

Program Prerequisite: ENG 20B & 20C & 20D & 20E or ESL 11 & 13 & 17

OR placement in ENG 21/51 or higher

Program Prerequisite and Proficiency Requirement: MATH 20B & 20C & 20D OR placement in MATH 24/50/53

# **General Requirements:**

- a. Required credit hours: 60
- b. Minimum A.A. GPR: 2.00 (The A.A. GPR is based on all courses numbered 100 or higher.)
- c. All courses must be numbered 100 or above.
- d. At least two courses must be Writing Intensive (WI) with a grade of "C" or higher. (Only one ENG course, with the exception of ENG 209, may be used to fulfill the WI requirement.) Note: ENG 100 with a grade of "C" or higher is a prerequisite for all writing-intensive courses.
- e. At least one course must be a Hawaiian, Asian, Pacific (H) designated course.
- f. At least one course must be an Ethical Issues (E) designated course.
- g. At least one course must be an Oral Communications (O) designated course.
- h. For the A.A. degree, either the final twelve (12) credits towards the degree or thirty (30) credits applicable to the degree must be earned from Honolulu Community College. This requirement may be waived for cause at the option of the Dean (by his/her discretion).

Note: "Focus Requirements" are included to ensure that students are prepared for UH Manoa's Graduation "Focus" Requirements.

#### Course Requirements:

#### Foundations Requirement: 12 credits

Foundation courses are intended to give students skills and perspectives that are fundamental to undertaking higher education. To promote student understanding of connections across fields of inquiry, foundations courses may be linked and require co-registration.

Foundations courses may be offered as components of learning communities that also include courses fulfilling diversification requirements. However, courses taken to fulfill the foundations requirement may not be used to fulfill requirements in other categories.

All full-time HCC students are expected to fulfill foundations requirements before achieving sophomore standing.

# Written Communication Requirement: 3 credits

Students will be introduced to the rhetorical, conceptual, and stylistic demands of writing at the college level; courses give instruction in composing processes, search strategies, and composing from sources. This course also provides students with experiences in the library and on the Internet and enhances their skills in accessing and using various types of primary and secondary materials.

Courses Approved to Date: English 100

#### Symbolic Reasoning Requirement: 3 credits

Courses fulfilling this requirement will expose students to the beauty and power of formal systems, as well as to their clarity and precision; courses will not focus solely on computational skills. Students should understand the concept of proof

as a chain of inferences. They should be able to apply formal rules or algorithms. They should also be able to engage in hypothetical reasoning. In addition, the course should aim to develop the ability of students to use appropriate symbolic techniques in the context of problem solving, and in the presentation and critical evaluation of evidence.

Courses Approved to Date: Mathematics 100, 103, 115, 135, 140, 205, 206, 231, 232; Philosophy 110; Quantitative Methods 121, 122

## Global and Multicultural Perspectives Requirement: 2 courses, 6 credits

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 Hawaii, the Pacific, and Asia.

Courses Approved to Date: History 151 and 152

# Diversification Requirement: 19 credits

The diversification requirement is intended to assure that every student has a broad exposure to different domains of academic knowledge, while at the same time allowing flexibility for students with different goals and interests.

#### Arts, Humanities, and Literatures (AHL)

# Requirement: 6 credits (3 credits each from 2 different groups)

These courses must come from groups not represented by the foundations global perspectives requirement.

Courses Approved to Date:

#### Group 1: The Arts (AHL1)

Mainly Theory:

Art 101, 170, 180; Music 106; Theater 101, 201

Mainly Practice:

Art 100, 104, 112, 113, 115, 123; Hawaiian Studies 212; Music 121D, 122D, 253; Speech 251, 253

(Any combination of one-credit courses that totals three-credit hours will be considered the equivalent of a one-semester course.)

### Group 2: Humanities (AHL2)

American Studies 201, 202

Asian Studies 100; Asian Studies 241 or History 241; Asian Studies 242 or History 242

Hawaiian Studies 107

History 231, 232, 241, 242, 281, 282, 284, 288

Philosophy 100, 101, 120, 200, 201, 202, 255

Religion 150, 151, 200, 201, 203, 204, 205, 207, 210

# Group 3: Literature and Language (AHL3)

East Asian Languages and Literatures 271, 272

English Literature 250, 251, 252, 253, 254, 255, 256, 257F, 257M, 257P, 257X

Hawaiian 261

Linguistics 102

#### Natural Sciences (NS)

# Requirement: 7 credits (3 credits in the biological sciences, 3 credits in the physical sciences, and 1 credit of laboratory)

Courses Approved to Date:

Group 1: Biological Sciences (NS 1)

Biology 100

Botany 101/101L, 130/130L

Food Science and Human Nutrition 185

Microbiology 130, 140

Science 101, 121 (lab incl.)

Zoology 101 (lab incl.), 200 (lab incl.)

# Group 2: Physical Sciences (NS2)

Astronomy 110

Biochemistry 241, 251

Chemistry 100/100L, 105, 151/151L, 152/152L, 161/161L, 162/162L

Geography 101

Geology and Geophysics 101/101 L, 103

Meteorology 101

Oceanography 201

Physics 100/100L, 151/151L, 152/152L, 170/170L, 272/272L, 274

Science 122 (lab incl.)

#### Social Sciences (SS)

### Requirement: 6 credits (3 credits each from 2 different departments)

Courses Approved to Date:

American Studies 211, 212

Anthropology 150, 200

Botany 105

Economics 120, 130, 131, 211

Fthnic Studies 101

Family Resources 230

Geography 102, 122, 151

Journalism 150

Hawaiian Studies 105

Political Science 110, 120, 130, 171

Psychology 100, 170, 180, 240, 250, 260

Social Science 120, 125, 250

Sociology 100, 214, 218, 231, 251

Women's Studies 151, 218, 275

# Focus Requirements:

The focus requirements identify important additional skills and discourses that can be provided through courses across the curriculum. Thus, these requirements can be satisfied through major and diversification courses. Students should be able to plan their academic program to meet these requirements without adding credits to graduation requirements.

Courses Approved to Date:

See your counselor or faculty advisor for a list of "focus designated" courses.

Note: Courses that fulfill "Focus Requirements" are identified in the HCC Schedule of Courses as H, E, O, W, but are not identified as such in the HCC Catalog.

#### Requirements:

#### Hawaiian, Asian, and Pacific Issues (H): 1 course

Courses fulfilling this requirement may come from across the curriculum. Appropriate courses will focus on issues in Hawaiian, Asian, or Pacific cultures and history.

Hawaiian, Asian, and Pacific Issues courses are identified in the HCC Schedule of Courses with a "H-" (Hawaii, Asian, and Pacific Issues) in front of the title. Example: HWST 107 (H-Hawaii: Center of the Pacific).

# Contemporary Ethical Issues (E): 1 course

Courses fulfilling this requirement may come from across the curriculum. Appropriate courses will involve significant readings on and discussion/deliberation of contemporary ethical issues.

Contemporary Ethical Issues courses are identified in the HCC Schedule of Courses with an "E-" (Ethical Issues) in front of the title. Examples: Philosophy 101 (E-Introduction to Philosophy: Morals and Society), Philosophy 120 (E-Science, Technology, and Values).

#### Oral Communication (O): 1 course

Courses fulfilling this requirement may come from across the curriculum. In appropriate courses, group work, individual and group oral reports, and training in oral delivery will constitute a significant portion of the final grade.

Oral Communication courses are identified in the HCC Schedule of Courses with an "O-" (Oral Communication) in front of the title. Examples: Speech 151 (O-Personal and Public Speech), Speech 200 (O-Speaking Skills for Prospective Teachers).

#### Writing Intensive (W): 2 courses

Courses fulfilling this requirement may come from across the curriculum. Because writing helps students both to learn and communicate, the University requires students to take writing-intensive courses. Small writing-intensive classes, in which instructors work with students on writing related to course topics, are offered in nearly all departments. Students must take English 100, 101, or English Language Institute 100 before they enroll in writing-intensive courses. A grade of "C" or higher must be earned in a writing-intensive course for it to satisfy part of the Writing Intensive requirement.

Students who entered the UH system as freshmen in fall 1990 or later must complete, before they graduate from the HCC campus, two writing-intensive courses.

Writing Intensive courses are identified in the HCC Schedule of Courses with a "W-" (Writing Intensive) in front of the title. Examples: English 250 (W-American Literature), Sociology 251 (W-Intro Soc Family).

(Note: Students who transfer to UH Manoa must take a total of five (5) WI courses to meet UH Manoa's baccalaureate graduation requirements. At least two of the five WI courses must be numbered 300 and above. Students who entered the UH system as freshmen prior to fall 1990 should consult an academic advisor to determine their WI course requirement.)

If you enrolled at Honolulu Community College before Fall 2002, use either the core and graduation requirements listed here or the previous listed graduation requirements.

### Associate of Arts Degree Requirements (Under Revision)

As part of the University of Hawai'i System of Colleges and Universities, Honolulu Community College has, since 1975, coordinated its Associate of Arts General Education Requirements with the University of Hawaii Manoa.

The UH Board of Regents approved a major revision of UH Manoa General Education and Graduation Requirements at its June 2000 meeting with an effective date of the Fall 2001 Semester.

HCC's A.A. General Education core also prepares students to transfer to an array of Mainland and Hawaii institutions, including specific articulation agreements with University of Hawai'i West Oahu, University of Hawai'i Hilo, Hawai'i Pacific University, and Chaminade.

#### Honolulu Community College A.A. degree requirements:

Program Prerequisite: ENG 20B & 20C & 20D & 20E or ESL 11 & 13 & 17 OR placement in ENG 22/60

Program Prerequisite and Proficiency Requirement: MATH 20B & 20C & 20D OR placement in MATH 24/50/53

#### **General Requirements**

- a. Required credit hours: 60
- b. Minimum A.A. GPR: 2.00 (The A.A. GPR is based on all courses numbered 100 or higher.)
- c. All courses must be numbered 100 or above.
- d. At least two courses must be Writing Intensive with a grade of "C" or higher. (Only one ENG course may be used for the requirement.) Note that ENG 100 with a grade of "C" or higher is a prerequisite for all Writing Intensive classes.
- e. For the A.A. degree, the final twelve (12) credits towards the degree or thirty (30) credits applicable to the degree must be earned from Honolulu Community College. This requirement may be waived for cause at the option of the Dean (by his/her discretion).

#### Course requirements:

# A.A. DEGREE REQUIREMENT

# HCC & UH/M CORE COURSES

Courses in this column have been formally articulated with the UH Manoa Core. Updates will be available in the Student Transfer Handbook available in the Library or from Academic Counselors for transfer students

#### HCC CORE COURSES

Courses in this column meet HCC A.A. core requirements and transfer as core to UH baccalaureate degree-granting institutions only if the student receives an A.A. degree from HCC. Otherwise, they transfer according to articulation published in the Student Transfer Handbook or as electives. Courses in this column may also satisfy specific requirements in some baccalaureate (Bachelor's degree) programs.

# Written & Oral Communication Two courses. 6 credits

English 100 (WR) Speech 151 or 200 (OR) If AH1 course requirement is satisfied by SP 251, then the written and oral communication requirement may be met by one course (3 cr.)—ENG 100—only. Then increase electives by 3 credits.

# Mathematical or

Math 100, 107, 115, 140, 205

Math 135, 206, 231, 232

Quantitative Methods 121

Logical Thinking - (M/L) One course 3 credits

Philosophy 110

Quantitative Methods 122

ethods 122

World Civilizations - History 151–152 Two courses, 6 credits

# Arts and Humanities Three semester

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

# **GROUP 1, THE ARTS** (Mainly theory) (AHI)

Art 101, 170, 180 Music 106, 108 Theatre 201 (Mainly practice) Art 104, 107, 113, 114, 115, 123, Hawaiian Studies 212, Music† 114, 121D, 122D, 253,

Speech 251, 253

Theatre 101

# A.A. DEGREE REQUIREMENT

# HCC & UH/M CORE COURSES

### HCC CORE COURSES

# GROUP 2, HISTORY & CULTURE (AH2)

American Studies 201, 202 Asian 100, 241, 242

Asian 100, 241, 242 Hawaiian Studies 107 History 231, 232, 241, 242, 281, 282, 284, 288

Religion 210

# GROUP 3, LANGUAGE AND LITERATURE (AH3)

East Asian Language and Literature 271–272 English Literature 250, 251,252, 253, 254, 255, 256, 257 Linguistics 102

# GROUP 4, VALUES AND MEANING (AH4)

Philosophy 100, 101, 120, 200, 201, 202, 255 Religion 150, 151, 200, 201, 203, 204, 205, 207

#### **Natural Sciences**

Three semester courses, one of which must be a lab course, with at least

one course in Group I: Biological Sciences and one course in Group II: Physical Sciences

For purpose of this requirement, course and lab course are defined as follows:

|                                       | _             | Count As | Count As A |
|---------------------------------------|---------------|----------|------------|
| <u>Type</u>                           | Example       | A Course | Lab Course |
| 1. one lecture course                 | ASTR 110      | Yes      | No         |
|                                       | CHEM 100      |          |            |
| 2. one lecture-lab                    |               |          |            |
| course (Lab incl.)                    | ZOOL 200      | Yes      | Yes        |
| <ol><li>one hyphenated pair</li></ol> | PHYS 100-100L | Yes      | Yes*       |
| 4. one lecture course                 | MICR 130      |          |            |
| and the associated                    | and MICR 140  | Yes      | Yes*       |
| lab course                            |               |          |            |
| 5. lab alone                          | CHEM 100L     | No       | No         |

<sup>\*</sup>satisfies the lab requirement only if both parts are passed.

# A.A. DEGREE REQUIREMENT

# HCC & UH/M CORE COURSES

# HCC CORE COURSES

# GROUP 1, BIOLOGICAL SCIENCES (NSI)

# Natural Sciences Three semester

courses as specified above.

Biology 100 Botany 101–101L, 130–130L Food Science and

Human Nutrition 185 Microbiology 125, 130, 140 Science 121 (Lab incl.) Zoology 101 (Lab incl.), 200 (Lab incl.)

# GROUP 2, PHYSICAL SCIENCES (NS2)

Astronomy 110
Biochemistry 241, 251
Chemistry 100–100L, 105, 151–151L, 152–152L, 161–161L, 162–162L
Geology/Geophysics 101–101L, 103
Meteorology 101
Oceanography 201
Physics 100–100L, 151–151L, 152–152L,

170-170L, 272-272L Science 122 (Lab incl.) Physics 274

# GROUP 3, OTHER SCIENCES (NS3)

Geography 101 Information and Computer Sciences 100, 111, 211 Science 101, 225-225L

†At UH Manoa, any combination of Music 114, 122, and other UH Manoa core practice Music courses that totals three credit hours will be considered the equivalent of one-semester course.

ELECTIVES: Electives are used to complete the A.A. in Liberal Arts, and they may range from 15-21 credits selected from courses numbered 100 and above. Course waivers and substitutions may be made only in the area of HCC electives. Students may substitute other Honolulu Community College courses if the Dean of Academic Affairs or designee agrees that the substitutions will receive applicable transfer credit at the college to which the student intends to transfer.

#### A.A. DEGREE HCC & UH/M REQUIREMENT **CORE COURSES** HCC CORE COURSES Social Sciences -American Studies 211, 212 (SS) Anthropology 150, 200 Three semester Botany 105 courses from Economics 211 Economics 120, 130, three different 131 disciplines. Family Resources 230. (9 credits) 231, 232 Geography 102, 151 Hawaiian Studies 105 Political Science 110. Journalism 150 120, 130, 171, 190 Political Science 271 Psychology 100, 170 Sociology 100, 218, Sociology 214 231, 251 Social Science 120. 125, 250 Women's Studies 151. 275

The UH Manoa graduation requirements include a two-year foreign language requirement. HCC has not established a foreign language requirement as a part of the A.A. degree. To assist students in meeting the UH Manoa requirement, HCC offers the following introductory language and culture courses which are accepted for graduation credit at UH Manoa. The language courses count as electives for HCC's A.A. degree.

Chinese 101, 102 Japanese 101, 102, 201, 202 French 101, 102 Spanish 101, 102, 201, 202 Hawaiian 101, 102, 201, 202 Tagalog 101, 102

f. For the A.A. degree, the final twelve (12) credits towards the degree or thirty (30) credits applicable to the degree must be earned from Honolulu Community College. This requirement may be waived for cause at the option of the Dean of Academic Affairs or Provost. The Provost may approve use of credit by examination to meet this requirement (by his/her discretion).

### PRE-PROFESSIONAL COURSE SEQUENCES

#### LOWER DIVISION ARCHITECTURE COURSES

Some Honolulu Community College courses may be accepted for the core requirements for the Bachelor of Architecture (BARCH) at the University of Hawai'i at Manoa (UH Manoa).

Presently two full-time faculty members serve as advisors to students interested in architecture. Interested students should contact Douglas Madden (845-9409) or Michael Jennings (845-9408).

#### PRE-BUSINESS ADMINISTRATION COURSES

Honolulu Community College offers most of the lower division courses required for the first two years of the Bachelor of Business Administration (B.B.A.) degree at the University of Hawai'i at Mānoa (UH Mānoa). These offerings include:

General Education Requirements

Pre-Business Core Courses

ENG 100 (Composition)

SP 151 (Personal & Public Speech) or SP 251 (Principles of Effective Speaking)

ACC 201 (Intro to Financial Accounting)

ACC 202 (Intro to Management Accounting)

Calculus (Math 205 or QM 122)

ECON 130 (Intro to Microeconomics)

ECON 131 (Intro to Macroeconomics)The following courses are applicable to the B.B.A. degree:

BLAW 200 (Legal Environment of Business)

ENG 209 (Business Writing)

ICS 101 (Tools for the Information Age)

PSY 100 or SOC 100 prerequisite to BUS 315 beginning Fall 1997

Arts and Humanities courses, Natural Science courses

Foreign Language 101, 102, 201, 202 (graduation requirement)

**Note:** Math 115 (Statistics) is recommended for students as relevant preparation for admission to the College of Business at the (UH Mānoa). Also, PSY 100 or SOC 100 is recommended since either course is prerequisite to BUS 315.

Three full-time faculty members serve as Pre-Major Advisors to students who are interested in pursuing the B.B.A. degree: Dolores Donovan (845-9855), Lena Low (845-9205) and Arlene Yee (845-9156).

#### PRE-EDUCATION COURSES

Honolulu Community College offers most of the lower division courses required for the Bachelor of Education (BEd) degree at the University of Hawai'i at Mānoa. These offerings include:

**FNG 100** 

SP 200

HIST 151, 152

MATH 100, 103\*, 115, 135\*, 140, 205 or PHIL 110 (secondary education only)

Arts and Humanities: MUS 253 or 108 for elementary education

Natural Sciences: SCI 121, SCI 122 OR CHEM 151 and PHYS 100, SCI 225

or GG 101 or 2 of the following: ASTR 110, OCN 201, MET 101; Lab

requirement (2 labs - SCI 121L; SCI 122L or CHEM 151L and PHYS 100L;

SCI 225L or GG 101L)

Social Sciences: FAMR 230 or PSY 100 and PSY 240, 2 other courses

Foreign Language 101, 102, 201, 202 (graduation requirement)

Hawai'ian requirement

Interested students should contact Frank Mauz (845-9441) or Sheila Yoder (845-9448), the Pre-Major Advisors in Education.

<sup>\*</sup>See Pre-Major Advisors on transferability of this course.

### LOWER DIVISION ENGINEERING COURSES

Honolulu Community College offers all of the courses required for the lower division requirement of civil, mechanical, and electrical engineering at the University of Hawai'i at Mānoa (UH Mānoa). In most instances, after successful completion of the lower division engineering courses at HCC, a student may transfer to the UH Mānoa with full junior status.

ENG 100

HIST 151, 152

MATH 205, 206, 231, 232

SP 251

Humanities courses\*

CHEM 161-161L, 162

PHYS 170-170L, 272, 272L, 274

Biological Science (civil only)

ECON 120 or 130 or 131

Social Science course\*

EE 101, 150, 211, 213, 260

CE 123, 211, 270, 271, ME 113

Foreign Language 101, 102, 201,

202 (graduation requirement)

Presently three full-time faculty members serve as Pre-Major Advisors to any students interested in engineering. Interested students should contact either Dallas Shiroma (847-9825), Kerry Tanimoto (845-9154), or Vern Takebayashi (847-9849).

\*Please see PreMajor Advisors for specific courses.

#### LOWER DIVISION INFORMATION AND COMPUTER SCIENCE

Honolulu Community College offers the same lower division courses as offered by the University of Hawai'i at Mānoa (UH Mãnoa) and the University of Hawaii at Hilo (UH Hilo) for their Bachelor's degrees.

A student at HCC can take all of the required lower division courses in Computer Science as well as the required core courses before transferring to UH Mānoa. This will prepare a student to transfer to UH Mānoa with full junior status. The HCC ICS courses that are transferable to UH Mānoa are: ICS 101, ICS 111, ICS 141, and ICS 211. UH Mānoa also requires 4 semesters of foreign language and an HCC student can take foreign language courses at HCC knowing that they will also transfer to UH Mānoa.

HCC students can also complete a Pre-Computer Science Program at Honolulu Community College and then continue with UH Hilo and complete a Bachelor of Science degree in Computer Science taking distance courses from Oahu via the Hawai'i Interactive Television System (HITS), Cable TV, the Internet, and the World Wide Web. The required courses from HCC are ICS 111 and 211, Math 205 and 206, Chemistry 161 and 162, Physics 170, 171L, 272, and 272L, English 209, and a Hawaiian/Asian/Pacific elective.

Students interested in either of these program should contact Sam Rhoads (845-9277 or sam@hcc.hawaii.edu).

#### PRE-NURSING COURSES

Many pre-nursing courses are available at HCC. Contact an Admissions Counselor or a Liberal Arts Academic Counselor for information.

#### LOWER DIVISION SOCIAL WORK

Honolulu Community College offers all the knowledge base courses required for admission into the Bachelor of Social Work (B.S.W.) degree program at the University of Hawai'i at Manoa. Some requirements overlap with the general education core.

Student who entered the UH system in Fall 1988 or later must complete:

PHIL 110, POLSC-any intro. course, PSY 260 (prerequisite PSY 100), Any biological science course emphasizing human biology, SW 200-The Field of Social Work

Presently one full-time faculty member serves as an advisor to students interested in social work. Interested students should contact Sharon Ota (845-9135).





# **Technical-Occupational Programs**

Program prerequisites are conditions which must be met before a student is designated as an "eligible" (E) major or a major (M) to take courses restricted to eligible majors.

Program competencies are described in the Honolulu Community College online catalog at http://www.hcc.hawaii.edu/hccinfo/pubs/catmenu.html

# ADMINISTRATION OF JUSTICE (AJ)

Faculty: Robert Vericker.

This program is designed to prepare the student academically for entry into the Administration of Justice career field; i.e., law enforcement, courts, corrections or private security. Courses are also provided to meet the training needs of the inservice professional.

A student at Honolulu Community College, who completes twelve (12) units of Administration of Justice work may receive up to twelve (12) additional units for completing basic recruit training in law enforcement or corrections as required by governmental agencies.

Basic Recruit Training (e.g., Corrections) graduating with a minimum of 250 hours training—6 credits. Basic Recruit Training (e.g., DPS - Law Enforcement) graduating with a minimum of 500 hours training—9 credits. Basic Recruit Training (e.g., HPD) graduating with a minimum of 900 hours training—12 credits.

Cost for textbooks is approximately \$200 per semester.

| OR Placemen   | equisite: "C" or higher in ENG 22 or in 60<br>t in ENG 100<br>urse Sequence | Associate<br>in Applied<br>Science<br>Degree<br>Credits |
|---------------|---|---|
| First Semeste | r   |   |
| AJ 101        | Introduction to Administration of Justice                                   | 3   |
| AJ 138        | Criminal Justice System Reports and Communication                           | ns 3  |
|               | Administration of Justice Elective  | 3   |
| General Educa | tion Requirement*   | 3   |
| Elective**    |   | 3   |
|               |   | 15  |
| Second Seme   | ester   |   |
| AJ 200        | Procedures of the Hawai'i Justice System                                    | 3   |
|               | Administration of Justice Elective  | 6   |
| General Educa | tion Requirement*   | 3   |
| Elective**    |   | 3   |
|               |   | 15  |

# **Third Semester**

| Tima Comocion     |                                     |    |
|-------------------|-------------------------------------|----|
| AJ 221            | Introduction to Criminal Law        | 3  |
|                   | Administration of Justice Electives | 3  |
| General Education | on Requirement*                     | 3  |
| Electives**       |                                     | 6  |
|                   |                                     | 15 |
| Fourth Semeste    | er                                  |    |
| AJ 224            | Rules of Evidence                   | 3  |
|                   | Administration of Justice Elective  | 3  |
| General Education | on Requirements*                    | 6  |
| Elective**        |                                     | 3  |
|                   |                                     | 15 |
| Minimum Credits   | s Required                          | 60 |

- \*A minimum of 15 general education credits are required. General education requirements for the A.A.S. Degree are listed under Degrees and Certificates.
- \*\*12 elective credits must be selected from AJ courses or General Education courses or courses numbered 100 and above and 3 elective credits may be selected from any courses that are not excluded from the AAS degree. Up to four credits of AJ 193 may be applied to the AJ program requirements. (See Degrees and Certificates section.)

The following elective is highly recommended for Administration of Justice students: SP 151, Personal and Public Speech.

# **Advisory Committee**

Eugene Uemura, Assistant Chief of Police, Honolulu Police Department Joseph W. Booker, Jr., Warden, F.D.C. Honolulu, Federal Bureau of Prisons Mel Decosta, Director of Security, Kahala Mall Shopping Center Gary Dias, Director of Security, The Queen's Medical Center



Students visit Hawaii's correctional institution, one of the components studied in Administration of Justice.

# AERONAUTICS MAINTENANCE TECHNOLOGY (AERO)

**Address:** 140 lako Place (Honolulu International Airport), Honolulu, HI 96819/ph. 831-6835.

Faculty: Brian Isaacson, Bill Rothe, Evelyn Lockwood, Robert Takamine, Mike Willett.

The Aeronautics Maintenance Department is an approved aviation maintenance technician training facility operating under Federal Aviation Administration Air Agency Certificate No. D19T087R with Airframe, Powerplant, and combined Airframe and Powerplant ratings. It is the only such school in the Pacific Basin. Students enrolling in the Aeronautics program have three choices as outlined below.

The first is the Aviation Maintenance Technician Certification program. It consists of the General Maintenance curriculum of 500 hours, the Airframe Maintenance curriculum of 750 hours, and the Powerplant Maintenance curriculum of 750 hours to meet the FAR Part 147 minimum required total of 1900 hours of theory and laboratory instruction in four (4) semesters and an additional semester of General Education courses. Students will not be allowed to enter the Airframe or Powerplant course without first completing the requirements of the General Maintenance course, and either or both the Airframe and/or Powerplant courses must be completed in order.

Classes may be offered as both a day program and a night program. Students enrolling in either program will be committed to that program and will not be allowed to switch to the other without prior approval from the Aeronautics Maintenance Technology Department. Check the current Schedule of Classes and addenda for day or night program availability.

Successful completion of each FAR Part 147 approved course requires at least a "C" grade in each unit, with all absences made up or the course must be repeated. Completion of the college requirements for the Certificate of Achievement, Associate in Science or the Aviation or Aeronautics Maintenance Technology degree or the transfer requirements of Aviation Systems Management. The Aviation Systems Management degree does not necessarily qualify a student to be eligible to take the FAA examinations for certification. No more than three days may be missed in each FAR Part 147 approved course or the course must be repeated.

Cost for textbooks, uniforms, and a required tool kit is approximately \$2200. As part of the preparation for working in the industry, during the last airframe class students will be expected to taxi an aircraft and communicate with ground control under the direction of a commercial flight school flight instructor at a flight school of their choice for an approximate cost of \$50.00.

Health and physical requirements vary with employers in the aviation maintenance industry. Students with special needs are encouraged to discuss their specific career goals with faculty during advising. Prospective students with military aviation maintenance experience should refer to Federal Aviation Regulation 65.77 and the Flight Standards District Office for possible certification alternatives.

A Certificate of Achievement will be awarded to students completing the Aviation Maintenance Technician Certification program. Upon completion of the General and either the Airframe or the Powerplant curricula, the student is eligible to take the FAA written examination for the appropriate Airframe or Powerplant rating without waiting to complete the program. Upon passing the written exam(s), the student is eligible to take the oral and practical examinations for Federal certification as an Aviation Maintenance Technician (Mechanic, Airframe, Powerplant or A&P as appropriate).

The second is an Associate in Science Aeronautics Maintenance Technology Degree. It is awarded to students who complete the following Federal Aviation Administration approved General Education requirements and the Airframe and Powerplant curricula. Upon completion of the General and either the Airframe or the Powerplant curricula, the student is eligible to take the FAA written examination for the appropriate Airframe or Powerplant rating without waiting to complete the program. The AERO courses are run in the same manner as for the Basic Aviation Maintenance Technician Training Program; refer to the text of the foregoing section.

**The third** is a transfer option to prepare for the completion of the Aviation Systems Management degree at the University of North Dakota or another 4-year program. Contact Brian Isaacson for details.

### **Program Prerequisites:**

#### **AERO 100**

# ENG 20B & 20C & 20D & 20E OR ESL 11

& 13 & 17 OR Placement in ENG 22/60

| -                    | ATH 50 or 53 OR Placement in                                 | Certificate            | Associate         |
|----------------------|--|------------------------|-------------------|
| MATH 27/103          |  | Of<br>Ashisysment      | in Science        |
|                      | ed preparation before enrolling 130-137 series: PHYS 51V AND | Achievement<br>Credits | Degree<br>Credits |
| ICS 100T             | 100-107 Selles. FITTO STV AND                                | Orealts                | Oreans            |
| AERO 130             | General Aircraft Maintenance I                               | 7                      | 7                 |
| AERO 131             | Advanced Gen. Aircraft Maint. II                             | 7                      | 7                 |
| AERO 132             | Powerplant Maintenance I                                     | 7                      | 7                 |
| AERO 133             | Airframe Maintenance I                                       | 7                      | 7                 |
| AERO 134<br>AERO 135 | Powerplant Maintenance II Airframe Maintenance II            | 7<br>7                 | 7<br>7            |
| AERO 136             | Powerplant Maintenance III                                   | 7                      | 7                 |
| AERO 137             | Airframe Maintenance III                                     | 7                      | 7                 |
|                      |  | 56                     | 56                |
| AERO 100             | Introduction to Aviation                                     |                        | 3                 |
| ENG 120              | Advanced Technical Writing                                   |                        | 3                 |
| SP 151               | Personal and Public Speech                                   |                        | 3                 |
|                      | on Requirement* (Group C and D) ed: IS 100, PSY 100 or 180   |                        | 6                 |
| MATH 135             | Pre-Calculus: Elementary Functions                           | 3                      | 3                 |
| PHYS 151-151L        | College Physics/   |                        |                   |
|                      | College Physics Laboratory 4                                 |                        |                   |
| ICS 100T             | Computing Literacy and                                       |                        |                   |
|                      | Applications (Transportation)                                |                        |                   |
| or ICS 100           | Computing Literacy and                                       |                        |                   |
| D                    | Applications   |                        | 0                 |
| Recommended          | a: ICS 1001  |                        | 3                 |
|                      |  |                        | 25                |
| Minimum Credits      | Required   | OC                     | 81                |
|                      |  |                        |                   |

<sup>\*</sup>General Education Requirements for the A.S. program are listed und Degrees and Certificates and must be numbered 100 or higher. PSY 100 and 180 are in Group C; IS 100 satisfies either Group C or Group D, but not both.

**Note:** Students must meet the minimum proficiency standards in Communication & Computation established by the College to qualify for the Certificate of Achievement.

The following 4-year degree programs accept AERO 130–137 for advanced standing credit towards a B.S. in Aeronautics Maintenance Management or other related degrees: Central Missouri State University, San Jose State University, Embry-Riddle Aeronautical University, University of North Dakota, Middle Tennessee State University, National University, Parks College of St. Louis University, Purdue University, Southern Illinois University at Carbondale, Central Washington University, Kent State University, Lewis University, Metropolitan State College of Denver, Utah State University, University of the District of Columbia. A complete listing can be obtained through the University Aviation Association or the FAA.

# **Advisory Committee**

Thomas Anusewicz, VP, Bradley Pacific Aviation
Mark Brommer, Manager of Maintenance, United Airlines
Jeannie Davis, Manager, Federal Avionics
Michael Heit, Boeing Commercial Airplanes
Lance Higa, Sr. Director of Maintenance
Jesse Ikei, International Association of Machinists & Aerospace Workers
Brian Koki, Director of Maintenance, Air Service Hawaii
Kawehi Lum, Supervisor, United Airlines
Jerry M. Matsuda, Airport Administrator
Ray Mori, Continental Airlines
Wendell R. Nelson, Mgr. Maintenance, Northwest Airlines
Frank Young President, Gold Wing, Inc.



Aeronautics Maintenance Technology

# **APPLIED TRADES (APTR)**

Any person who has completed or is enrolled in a State of Hawai'i or a Federally approved apprenticeship program or an approved Pearl Harbor Naval Shipyard Cooperative Education Training sequence is eligible for admission to the Honolulu Community College Associate in Applied Science degree program in Applied Trades.

Persons who have completed all the "work process hours" and "related instruction" necessary for journeyworker status in their respective trades will receive up to 45 credits for this training, which will apply toward the "Major courses" requirements of their degree, according to the following schedule: Five (5) credits will be awarded for each 144–160 hour segment of related classroom instruction; seven (7) credits will be awarded for each 2000 hour segment of work process. Persons completing apprenticeship programs of less than four years in duration will need to take sufficient additional recommended courses to meet the minimum credit requirement for the degree. General education texts average \$25–\$40 each.

A Pearl Harbor Naval Shipyard (PHNSY) Cooperative Education training sequence includes a minimum of 780 hours of approved PHNSY Trade Theory and General Experience Training (26 credits), register in the WORK 94V course every semester and complete a minimum of 750 hours of work experience, 10 credits of Cooperative Education at PHNSY, and 24 credits of general education and technical support courses. PHNSY Trade Theory and General Experience Training are converted to credits upon completion of certification (30 training hours = 1 credit).

| Science   | Associate in Applied |
|---|----------------------|
| Colonico  | Degree<br>Credits    |
| Apprenticeship Training or approved PHNSY Training sequence   | 26                   |
| General Education Requirements and Technical Support Courses* | 24                   |
| Cooperative Education - Work 94V                              | 10                   |
| Minimum credits required                                      | 60                   |

<sup>\*</sup>General Education Requirements for the A.A.S. degree are listed under Degrees and Certificates. For Pearl Harbor Naval Shipyard (PHNSY) students, the following courses are required: (ENG 120), (SP 151), PHYS 51V, MATH 50, MATH 55, PSY 180, IEDD 101, and IEDD 102. Substitutions may be made with prior approval by PHNSY and HCC.

#### Advisors

Wilfred Arakaki, Advisory Apprenticeship Coordinator, Honolulu Comunity College Dennis Huddy, Apprentice Program Administrator, Pearl Harbor Naval Shipyard & IMF

Associate in Science Degree

### ARCHITECTURAL, ENGINEERING, AND CAD TECHNOLOGIES (AEC)

Faculty: Michael Jennings, Douglas Madden.

The Architectural, Engineering and CAD Technologies program is designed to prepare students for immediate employment as architectural or engineering drawing technicians. Some students, however, also use the program to prepare for employment in building construction, interior design drawing, construction supervision, and various other fields. Still other students use the program as a step on the way to a bachelor's degree in architecture or engineering.

The emphasis in the program is on AutoCAD and other technical drawing software in the creation of construction drawings. An Authorized Autodesk Training Center is offered in conjunction with the program and provides nationally standardized, non-credit training in Autodesk products such as AutoCAD, 3D Studio VIZ, and others.

The program leads to the Associate in Science degree. There is also a Certificate of Achievement available for students desiring or needing only the courses that specifically and principally involve computer-aided drawing training.

Recommended high school preparation: Drafting, Geometry, English, Art, Basic Science, and Computer Literacy.

Students may take the following courses in any order that respects course prerequisites and corequisites. (For example, MATH 53 OR placement in MATH 55/58/135 is a prerequisite for AEC 127 and that prerequisite needs to be satisfied prior to the second semester.)

#### Program Prerequisites:

| AEC 80 OR instructor approval based on      |             |
|---|-------------|
| high school drafting or other prior         |             |
| training/experience                         | Certificate |
| ENG 22/60 OR Placement in ENG 100 or higher | of          |
| MATH 20B & C & D OR Placement in            | Achievemer  |
| MATH 50/53 or higher                        | Credits     |

|              | 53 or higher                          | Credits | Credits |
|--------------|---------------------------------------|---------|---------|
| Suggested F  | irst Semester                         |         |         |
| AEC 110      | Basic Auto CAD                        | 4       | 4       |
| AEC 114      | Architectural Graphics                |         |         |
|              | (incl. Intro to ArchiCAD)             | 3       | 3       |
| AEC 118      | Construction Materials                |         | 3       |
| ENG 100      | Composition I                         |         | 3       |
|              |                                       | 7       | 13      |
| Suggested S  | econd Semester                        |         |         |
| AEC 120      | Introduction to Construction Drawing  | js 3    | 3       |
| AEC 123      | Residential Planning and Design       |         | 3       |
| AEC 124      | Advanced ArchiCAD                     | 3       | 3       |
| AEC 127      | Civil Engineering Drawing             | 3       | 3       |
| General Educ | ation Requirement* (100-level Group A |         |         |
| B, or D; rec | . FAMR 296)                           |         | 3       |
|              | _                                     | 9       | 15      |

| Suggested Th   | ird Semester                             |    |    |
|----------------|--|----|----|
| AEC 130        | Residential Working Drawings             | 3  | 3  |
| AEC 131        | Construction Codes                       |    | 2  |
| AEC 135        | Introduction to the Built Environment    |    |    |
|                | (Gen. Ed. Group C)                       |    | 3  |
|                |  |    |    |
| AEC 136        | Structural Drawing                       | 3  | 3  |
| AEC 138        | Construction Estimating and Bidding      |    | 3  |
| AEC 139        | Field Shadow Experience                  |    | 1  |
|                |  | 6  | 15 |
| Suggested Fo   | ourth Semester                           |    |    |
| AEC 140        | Commercial Working Drawings              | 3  | 3  |
| AEC 141        | Building Services                        | 3  | 3  |
| AEC 146        | AutoCAD 3D Studio VIZ                    | 3  | 3  |
| AEC 149V       | Preparation for Employment in the        |    |    |
|                | AEC Industry                             |    | 2  |
| 100-level Quar | ntitative/Logical Reasoning Requirement* |    | 3  |
| General Educa  | tion Requirement * (100-level            |    |    |
| Group A, B,    | or D)                                    |    | 3  |
|                |  | 9  | 17 |
| Minimum Cred   | its Required                             | 31 | 60 |

<sup>\*</sup>General Education and Quantitative/Logical Reasoning Requirements for A.S. degree are listed under Degrees and Certificates.

**Note:** Students must meet the minimum proficiency standards in communication and computation established for the College to qualify for the Certificate of Achievement.

#### **Advisory Committee**

Kenneth Goldstein, Executive Vice President, Computer-Aided Technologies International, Inc.

Linda Kihune, Recruitment Division, Personnel Office, State of Hawai'i Department of Human Services

James Lyon, Lyon Associates

Bettina Mehnert, AIA, Architects Hawaii, Ltd.

Linda Miki, AIA, Group 70 Architects, Ltd.

Paul Morgan, AIA, Suzuki/Morgan Architects, Ltd.

June Nakamura, President, Engineering Solutions, Inc.

# AUTO BODY REPAIR AND PAINTING (ABRP)

Faculty: Steven Chu, Milton Tadaki.

The curriculum used for the program is published by the I-CAR Education Foundation and is based on the National Automotive Technicians Education Foundation (NATEF) Auto body Task List and the National Institute for Automotive Service Excellence (ASE) technician certification standards. Students completing the program will be prepared for employment in the Auto Body Repair and Painting industry and related areas. Classroom and laboratory work is offered in a modern and well-equipped facility. The program is certified by NATEF.

Cost for the tools, supplies and textbooks is approximately \$750. Purchases of additional tools and textbooks may be required each semester.

Recommended high school preparation: Industrial Arts, Mechanical Drawing, Mathematics, Physical Science, Communication Skills—reading and speaking.

| Program Prerequisite: ENG 20B & C & D & E OR ESL 11 & 13 & 17 OR Placement in ENG 21/51 MATH 20B & C & D OR Placement in MATH 50/53 |  | Certificate<br>of<br>Achievement<br>Credits | Associate<br>in Applied<br>Science<br>Degree<br>Credits |
|---|--|---|---|
| First Semester  |  |   |   |
| ABRP 62   | Metal Straightening/Body Filler Techniques           | 2   | 2   |
| ABRP 63   | Welding and Cutting Techniques                       | 2   | 2   |
| ABRP 64   | Corrosion Repair Techniques                          | 2   | 2   |
| ABRP 65   | MIG Welding  | 2   | 2   |
| ABRP 66   | Refinishing Safety & Vehicle Preparation             | 3   | 3   |
| ABRP 67   | Detailing  | 1   | 1   |
| PHYS 55   | Metallurgy and Plastics                              |   | 4   |
|   |  | 12  | 16  |
| Second Semes  | ster   |   |   |
| ABRP 68   | Corrosion Protection Principles                      | 1   | 1   |
| ABRP 69   | Color Mixing & Matching                              | 3   | 3   |
| ABRP 70   | Paint Blending Techniques                            | 3   | 3   |
| ABRP 71   | Paint Application Problems                           | 2   | 2   |
| ABRP 72<br>MATH 50  | Automotive Composite Repairs Technical Mathematics I | 3   | 3   |
| or MATH 53  | Technical-Occupational Math                          |   | 3/4   |
|   |  | 12  | 15/16   |

<sup>&</sup>lt;sup>1</sup>Driver's license must remain valid throughout the time the student is in the program.

| Third Semeste  | er                                      |    |       |
|----------------|---|----|-------|
| ABRP 73        | Collision Prep & Panel Alignment        | 4  | 4     |
| ABRP 74        | Quarter Panel Replacement               | 2  | 2     |
|                | Techniques                              |    |       |
| ABRP 75        | Door Skin Alignment & Replacement       | 2  | 2     |
| ABRP 76        | Advanced Welding Methods                | 2  | 2     |
| ABRP 77        | Estimating Vehicle Damage               | 2  | 2     |
| ENG 51         | Technical Reading                       |    | 3     |
|                | Technical Writing                       |    |       |
|                | Expository Writing                      |    |       |
| Recommend      | ded: ENG 51                             |    |       |
| ICS 100T       | Computer Literacy and Applications      |    |       |
|                | (Transportation)                        |    |       |
| or ICS 100     | , |    |       |
| Recommend      | ded: ICS 100T                           |    | 3     |
|                |   | 12 | 18    |
| Fourth Semest  | ter                                     |    |       |
| ABRP 78        | Collision Damage Analysis               | 3  | 3     |
| ABRP 79        | Structural Straightening Techniques     | 3  | 3     |
| ABRP 80        | Panel Replacement                       | 6  | 6     |
| SP 151         | Personal and Public Speech              |    | 3     |
| General Educat | tion Requirement * (Group C or D)       |    | 3     |
|                | _                                       |    |       |
|                | _                                       | 12 | 18    |
| Minimum Credi  | ts Required                             | 48 | 67/68 |

<sup>\*</sup>General Education Requirements for the A.A.S. degree are listed under Degrees and Certificates.

**Note:** Students must meet the minimum proficiency standards in communication and computation established by the College to qualify for the Certificate of Achievement.

### **Advisory Committee**

Ronald Burkhart, Pearlridge Fender & Body (Chair)
Alex Cho, AC Marketing
Scott Furuta, Kamoi Auto Repair
Tim Gruber, Classic Bodyworks
Dale Matsumoto, Auto Body Hawai'i
Debbie Omori, Bob's Fender Shop, Inc.
Francis Parsons, Instructor, Kamehameha School
Jerry Ranion, Waipahu High School
Eric Takemoto, Island Fender
Steven White, Hi-Line Distributors, Inc.
John Yim, Waipahu High School
Walden Zane, Campbell High School

# **AUTOMOTIVE TECHNOLOGY (AMT)**

Address: 445 Kokea St., Honolulu, HI 96817/ph. 847-1578

Faculty: Paul Allen, Ivan Nitta, Craig Ohta, Bert Shimabukuro, Gordon Talbo, Clifford Yamashiro.

The automotive mechanics technology program is a competency-based program designed following the standards specified by the National Automotive Technicians Education Foundation (NATEF). The **competencies** the student is expected to achieve in the program are based on the tasks described by NATEF. Students who successfully complete the program will receive training in all of the eight areas described by NATEF: Automatic Transmission/Transaxle, Brakes, Electrical Systems, Engine Performance, Engine Repair, Heating & Air Conditioning, Manual Drive Train & Axles, and Suspension & Steering. The program is certified by NATEF.

The goals of the program are: to prepare the student with the skills and competencies necessary for a successful career as an automotive technician; to instill in the student the work habits and attitude necessary to work in a highly competitive field; to provide the student with the basic skills necessary to become a lifelong learner in order to keep abreast of the latest technological changes in the automobile.

The physical requirements of the program include the eye-hand coordination necessary to make precision repairs and to avoid unnecessary material losses and personal injury.

The cost of tools and supplies for the five-semester program is approximately \$2300.

Recommended high school preparation: Pre-Algebra, Electronics, Chemistry or Physics, Industrial Arts.

| Program Prerequisites: Valid driver's license <sup>1</sup> |             | Associate  |
|--|-------------|------------|
| ENG 20B & C & D & E OR ESL 11 & 13                         | Certificate | in Applied |
| & 17 OR Placement in ENG 22/60                             | of          | Science    |
| "C" in MATH 24 or in 50 or in 53                           | Completion  | Degree     |
| OR Placement in MATH 25 or 55                              |             | Credits    |

(If the MATH program prerequisite is met by Placement Test scores, credit in MATH 50 or 53 (53 is recommended.) or appropriate substitute is needed to meet the General Education Requirement for the A.A.S. degree.)

3-4

| First Semester<br>AMT 20 | Introduction to Automotive          |      |       |
|--------------------------|-------------------------------------|------|-------|
| 7 11 20                  | Mechanics                           | (2)  | 2     |
| AMT 53                   | Brakes                              | (5)  | 5     |
| AMT 55                   | Suspension and Steering             | (5)  | 5     |
| PHYS 56                  | Basic Electrical Theory and Lab     |      | 4     |
|                          |                                     | (12) | 16    |
| Second Semes             | ter                                 |      |       |
| AMT 46                   | Powertrain and Manual Transmissions |      | 5     |
| AMT 50                   | Automatic Transmissions/Transaxles  |      | 7     |
| ICS 100 T                | Computing Literacy and              |      |       |
|                          | Applications (Transportation)       |      |       |
| or ICS 100               | Computing Literacy and Applications |      | 3     |
| Recommende               | ed: ICS 100T                        |      |       |
| WELD 16                  | Welding for AMT Majors              |      | 1-3   |
| or WELD 19               | Welding for Trades and Industry     |      |       |
|                          |                                     |      | 16-18 |

<sup>&</sup>lt;sup>1</sup>Driver's license must remain valid throughout the time the student is in the program.

| Third Semester  |                                |       |  |  |
|-----------------|--------------------------------|-------|--|--|
| AMT 30          | Engines                        | 8     |  |  |
| AMT 40          | Electrical Systems I           | 4     |  |  |
| General Educat  |                                |       |  |  |
| ENG 60/100/120) |                                | 3     |  |  |
|                 | ,                              | 15    |  |  |
| Fourth Semest   |                                |       |  |  |
| AMT 42          | Electrical Systems II          | 8     |  |  |
| AMT 43          | Air Conditioning               | 4     |  |  |
| General Educat  |                                |       |  |  |
| Acceptable (    | Courses: 100 level or above in |       |  |  |
| ECON, PHIL      | 3                              |       |  |  |
|                 |                                | 15    |  |  |
| Fifth Semester  |                                |       |  |  |
| AMT 67          | Engine Performance             | 12    |  |  |
| AMT 93V Coope   | 1-4                            |       |  |  |
|                 |                                | 13-16 |  |  |
| Minimum Credit  | 78-84                          |       |  |  |

**Note:** Students must meet the minimum proficiency standards in communication and computation established by the College to qualify for the A.A.S. degree.

\*General Education Requirements for the A.A.S. degree are listed under Degrees and Certificates.

### **Advisory Committee**

Bert Azama, Instructor, Kaimuki High School Arnell Aurelio, Technician, Toyota City Bob Cahn, Owner, Car Doc Stewart Chong, Owner, Stewart's Auto Service Marcos Erickson, Technician, JN Chevrolet Keith George, Service Manager, Porche Garv Gibo, Foreman, Honolulu Ford Kenneth Ige, Foreman, Service Motors Marshall Kaichi, Owner, Marshall's Shell Service Paul Kaminaka, Kalihi CarQuest Warren Kaminaka, Owner, Kalihi CarQuest Dan Kawamoto, Assistant Service Manger, Cutter Dodge Alvin Kubo, Owner, Al's Auto Machine Gilbert Matsumoto, Owner, Hawaii Mobile Air Skip Miller, Service Manager, Cutter Ford, Inc. Ken Nakamoto, Nissan of Hawaii Kevin Okawa, Technical Training Manager, Servco Hawaii Roy T. Ozaki, Owner, Kalihi Automotive Center & Towing Francis Parsons, Instructor, Kamehameha School Wayne Takahada, Service Manager, Cutter Chrysler Neal Tanaka, Technical Training Manager, Toyota Hawai'i Clayton Uza, Parts & Service Manager, Nissan Motor Corp. George Watanabe, Instructor, Waiaua High School

Jon Yamashiro, Owner, Hawaii Automotive Repair

# **CARPENTRY TECHNOLOGY (CARP)**

Faculty: Jeff Uyeda.

Carpentry is one of the basic trades in the construction field. Entrance into this trade is usually obtained through serving a four-year indentured apprenticeship. The Carpentry Department offers a program of instruction which, when successfully completed, provides an excellent background for those desiring to enter the apprenticeship program. Students may also take selected courses appropriate to their needs.

Cost for tools and textbooks is approximately \$460 for the first year and \$50 for each succeeding year.

| Program Prerequisites: ENG 20B & C & D & E OR ESL 11 & 13 & 17 OR Placement in ENG 21/51 MATH 20B & C & D OR Placement in MATH 50/53 | Certificate<br>Achievement<br>of<br>3 Credits | Associate<br>in Applied<br>Science<br>Degree<br>Credits |
|--|---|---|
| First Semester   |   |   |
| CARP 20 Materials, Hardware & Tools  |   |   |
| Maintenance  | 11  | 11  |
| CARP 30 Blueprint Reading For Carpenters MATH 50 Technical Mathematics I   | 4   | 4   |
| or MATH 53 Technical-Occupational Math   | 3/4   | 3/4   |
|  | 18/19   | 18/19   |
| Second Semester CARP 22 Concrete Form Construction General Education Requirement (OESM 101 or Ground ENG 51 Technical Reading        | 11<br>p C)* 3                                 | 11<br>3<br>3<br>17                                      |
| Third Semester   |   |   |
| CARP 41 Rough Framing & Exterior Finish General Education Requirement*   | 11  | 11<br>3   |
|  | 11**  | 14  |
| Fourth Semester CARP 42 Finishing General Education Requirement*   | 11  | 11 3  |
|  | 11**  | 14  |
| Minimum Credits Required   | 54/55   | 63/64   |

<sup>\*</sup>General Education Requirements for the A.A.S. degree are listed under Degrees and Certificates.

**Note:** Students must meet the minimum proficiency standards in communication established by the College to qualify for the Certificate of Achievement.

<sup>\*\*</sup>Students desiring full-time status are required to register for 12 credits. Recommended course: WELD 19, Welding for Trades and Industry.

### **Advisory Committee**

Elroy Chun, Building Industry Association of Hawai'i

Walter Ishii, W M Ishii Contracting

Kazukiyo Kuboyama, Retired Apprenticeship Instructor, Honolulu Community College Norman Lum, Components Inc.

Denis Mactagonee, Hawai'i Carpenters Apprenticeship & Training Office



Carpentry Technology

BOAT MAINTENANCE AND REPAIR See Marine Technologies, Boat Maintenance and Repair (MARR).

Associata

# **COMMERCIAL AVIATION (AVIT)**

Faculty: Edward Santa Elena.

The Commercial Aviation program is a five-semester program of study that prepares students for careers as a pilot, including charter and tour services, cargo and transport services, and flight instruction. Students may log up to 250 hours of flight time. The Associate in Science degree in Commercial Aviation is transferrable to the University of North Dakota's (UND) Center for Aerospace program which leads to a Bachelor's degree in Commercial Aviation.

Classes are scheduled at the Honolulu Community College Airport Training Center.

For additional information, contact Admissions at 845-9129.

Flight instruction will be provided by UND Aerospace. All flight fees will be paid to UND; tuition to HCC. Estimated cost of equipment, textbooks, and flight fees for the completed degree and FAA commercial pilot license and certified flight instructor certificate are \$28,000-\$30,000 over five semesters of flight training.

| Program Prerequisites: Placement in ENG 22 Placement in MATH 27/103 |   | FLIGHT MEDICAL CLEARANC<br>ALSO REQUIRED                              | Degree                                    |
|---|---|---|---|
|   | Credits   |   |   |
| General Education<br>ENG 100<br>SP 151<br>QM 122<br>or MATH 205     | Composition<br>Personal a<br>Mathemati                  |   | 3<br>3<br>3                               |
| HIST 151<br>or HIST 152   | World Civil   |   | 3   |
| MET 101<br>MET 101L<br>ICS 101<br>ECON 130<br>POLS, PSY, or 9       | (Grp A)<br>(Grp A)<br>(Grp B)<br>(Grp C)<br>SOC Electiv |   | 3<br>1<br>3<br>3<br>3                     |
| Elective  Major Courses:  | (Grp D)**   |   | 28  |
| ÁVIT 102<br>AVIT 104<br>AVIT 202                                    | Introductio<br>Aviation Hi<br>Air Transpo               |   | 5<br>3<br>3                               |
| AVIT 203<br>AVIT 205  | Introduction<br>Airline Ope                             | n to Air Traffic Control<br>erations and Management                   | 2 3                                       |
| AVIT 208<br>AVIT 214<br>AVIT 250                                    | Aviation Sa<br>CFI Certific<br>Human Fa                 | cation  | 3<br>5<br>2                               |
| AVIT 251<br>AVIT 252  | Aircraft Sys<br>Basic Attitu                            | stems & Instruments<br>ude Instrument Flying                          | 3<br>2<br>3<br>5<br>2<br>3<br>3<br>3<br>3 |
| AVIT 253<br>AVIT 254<br>AVIT 255                                    | IFR Régula  | nics - Airplanes<br>ations & Procedures<br>e Systems & Procedures 4th | 3<br>3<br>2                               |
| Minimum Credits Required  |   |   | 40<br>68                                  |

<sup>\*</sup>General Education Requirements for the A.S. degree are listed under Degrees and Certificates and must be numbered 100 or higher.

<sup>\*\*</sup>See Academic Counselor for courses that will transfer to UND.

### **COMMUNICATION ARTS (CA)**

Faculty: Harrison Brooks, Sandra Sanpei.

The Communication Arts program embraces three areas of study which are all interrelated: Design (visual solutions), Print (production skills for print media) and Multimedia (on-line publishing). All focus on meeting the ever-changing needs of business and industry.

The Communication Arts program prepares students for entry level employment in graphic design, advertising design, desktop publishing, electronic imaging and prepress, on-line publishing, digital photography, and all aspects of the publishing and printing industries, including service bureaus and other related industries.

To successfully complete the program students must earn a grade of "C" or higher in all major courses with a "CA" alpha.

|                       |   | Associate |
|-----------------------|---|-----------|
| Program Prereq        | in  |           |
| ENG 22 or 60 O        | Science                                     |           |
| MATH 24 or 50         | Degree                                      |           |
| Any ICS 100           | Credits                                     |           |
| General Education     | on Requirements:*                           |           |
| Communicatio          | ns (Rec: Sp 151)                            | 3         |
| Quantitative or       | Logical Reasoning                           | 3         |
| Any ICS 100           | Computing Literacy and Applications (Grp B) | 3         |
| CA 101                | Power of Advertising (Grp C)                | 3         |
| CA 100                | Survey of Graphic Styles (Grp D)            | 3         |
|                       |   | 15        |
| Major Courses (Core): |   |           |
| CA 121                | Art Prep I                                  | 4         |
| CA 122                | Copy Prep                                   | 4         |
| CA 123                | Color/Comprehensives                        | 4         |
| CA 131                | Art Prep II                                 | 4         |
| CA 132                | Page Composition I                          | 4         |
| CA 155                | Portfolio                                   | 4         |
|                       |   | 24        |
| Additional Major      | Courses**                                   |           |
| (Design Group         | 21-28                                       |           |
| , ,                   |   |           |
| Minimum credits       | 60-67                                       |           |

<sup>\*</sup>General Education requirements for the A.S. degree are listed under Degrees and Certificates and must be numbered 100 or higher.

<sup>\*\*</sup>Must be numbered 100 or higher.

| COURSES               | TITLE                                  | Credits |  |  |
|-----------------------|--|---------|--|--|
| Design Group          |  |         |  |  |
| CA 125                | Beginning Graphic Design               | 4       |  |  |
| CA 135                | Typographic Design                     | 4       |  |  |
| CA 142                | Page Composition I                     | 4       |  |  |
| CA 143                | Prepress Image Assembly                | 4       |  |  |
| CA 145                | Graphic Design                         | 4       |  |  |
| CA 152                | Ad Research and Campaign               | 4       |  |  |
| One of the foll       |  |         |  |  |
| CA 146                | Advertising Design                     | 4       |  |  |
| CA 150                | Special Projects                       | 4       |  |  |
| CA 193V               | Cooperative Education                  | 1-4     |  |  |
| Print Group           |  |         |  |  |
| CA 130                | Safety Practices                       | 1       |  |  |
| CA 141                | Beginning Offset Press                 | 7       |  |  |
| CA 142                | Page Composition II                    | 4       |  |  |
| CA 143                | Prepress Image Assembly                | 4       |  |  |
| CA 151                | Advance Offset Press                   | 8       |  |  |
| One of the foll       | 0                                      |         |  |  |
| CA 150                | Special Projects                       | 4       |  |  |
| CA 193V               | Cooperative Education                  | 1-4     |  |  |
| Multimedia Gro        | ир                                     |         |  |  |
| CA 125                | Beginning Graphic Design               | 4       |  |  |
| CA 130                | Safety Practices                       | 1       |  |  |
| CA 134                | Still Imaging I                        | 4       |  |  |
| CA 144                | Still Imaging II                       | 4       |  |  |
| ICS 102               | Intro to Internet Resources            | 3       |  |  |
| One of the foll       |  |         |  |  |
| CA 135                | Typographic Design                     | 4       |  |  |
| CA 137                | Motion Imaging I                       | 4       |  |  |
| CA 138                | Motion Imaging II                      | 4       |  |  |
| One of the following: |  |         |  |  |
| CA 147                | Studio Photography                     | 4       |  |  |
| CA 148<br>CA 150      | 3D Animation                           | 4<br>4  |  |  |
| CA 150<br>CA 193V     | Special Projects Cooperative Education | 1-4     |  |  |
| OA 130 V              | Ooperative Education                   | 1-4     |  |  |

# **Advisory Committee**

John Alves, Honolulu Magazine Anita Liptak, Hagadone Printing Co. Lee Schaller, Reed Kaina Schaller & Strom Advertising, Inc. Richard Puetz, Chair., Loomis Ric Noyle, Ric Noyle Photography Donald Ojiri, Obun Hawaii, Inc. Marivic Yao, DiscMaker

#### COMPUTING, ELECTRONICS, AND NETWORKING TECHNOLOGY (CENT)

**Faculty:** William Becker, Michael Castell, Paul Jacoby, Wayne Lewis, Sam Rhoads, Dallas Shiroma, Rose Sumajit, Vern Takebayashi, Aaron Tanaka

The Computing, Electronics, and Networking Technologies program is a two-year course of study that prepares the student for entry-level employment in the field of Information Technology. Core classes are designed to give a student a firm foundation in the basics of computers, networking and information systems. Elective courses allow the student to further speciallize in a field of study. Students are required to participate in an internship or cooperative education experience before completing the program. Certain courses may also prepare the student to take the following Information Technology industry certification exams: Computer Technician A+, Cisco Certified Network Associate, and Microsoft Certified professional. The CENT program is a Cisco Authorized Regional Academy, Comptia Training Center, and a Microsoft Regional Academy.

Cost of equipment and textbooks ranges between \$1000 and \$1500 for the entire program depending on the courses taken.

| Program Prerequi<br>ENG 22 or 60 OR<br>"C" or higher in M<br>MATH 135<br>ICS 100E<br>CENT 112 OR Ins<br>electronics or oth | Associate<br>in Science<br>Degree<br>Credits  |     |
|--|---|-----|
| Communications<br>ENG 100  | •   | 0   |
|  | Composition I  Logical Reasoning  Technical Math for the Information Age Pre-Calculus: Elementary Functions Pre-Calculus: Trig & Analyt Geometry Calculus I | 3   |
| or MATH 206  | Calculus II   | 3-4 |
| Other General Ed<br>PHYS 130   | ucation Requirements Introduction to Fiber Optics (Grp A)   | 4   |
| ICS 100E   | Computer Literacy and Applications (Electricity & Electronics) (Grp B)  | 3   |
| *General Education   | Requirement (Group C/D)   | 3   |
| CENT Core Cours  | es  |     |
| CENT 110   | Introduction to Information Systems   | 3   |
| CENT 115   | Introduction to Computer Systems  | 3   |
| CENT 130   | Microcomputer Operating Systems   | 4   |
| CENT 131   | Microcomputer Hardware I  | 4   |
| CENT 140   | Computer Networking I   | 4   |
| CENT 227   | Networking with TCP/IP and UNIX   | 3   |

<sup>\*</sup>General Education Requirements for the AS degree are listed under Degrees and Certificates and must be numbered 100 or higher.

| CENT 231<br>CENT 240      | Data Communication Computer Networking II | 4<br>4 |  |
|---------------------------|---|--------|--|
| CENT 251                  | UNIX System Administration                | 4      |  |
| CENT 270                  | Network Operating Systems I               | 4      |  |
| OLIVI 270                 | Notwork operating Cyclome 1               | 53-54  |  |
| Program Elective          | s (Select two courses from below)         | 00 0 . |  |
| CENT 102                  | Internet Resources                        | 3      |  |
| CENT 232                  | Microcomputer Hardwae Ii                  | 4      |  |
| ICS 111                   | Introduction to Computer Science          | 4      |  |
| ICS 211                   | Introduction to Computer Science li       | 3      |  |
| CENT 245                  | Computer Networking III                   | 4      |  |
| CENT 272                  | Networking Operating Systems II           | 4      |  |
|                           |   | 6-8    |  |
|                           |   |        |  |
| Other Program Re          | equirements                               |        |  |
| FAMR 100A                 | Personal and Professional Development     | 1      |  |
| CENT 290V                 | CENT Internship                           | 2      |  |
| or CENT 293V              | Cooperative Education                     |        |  |
| ENG 209                   | Business and Managerial Writing           | 3      |  |
|                           |   | 6      |  |
| Minimum Credits Required6 |   |        |  |

Under special circumstances, and with prior approval of the program faculty, CENT 290V/293V may be repeated once for elective credit. Under these circumstances, up to 8 elective credits may be earned.



The Computing, Electronics, and Networking Technology (CENT) program.

#### COSMETOLOGY (COSM)

Faculty: Jessie Aki, Nancy-Beth Au, Kathleen Kamakaiwi.

The Cosmetology department offers three Certificates and a four-semester Associate in Applied Science degree program. The curriculum is designed to prepare the student for the State Board of Cosmetology Examination. Upon passing the examination the individual becomes a licensed cosmetologist.

The Cosmetology program is part of an international member school system that teaches the technique known as Pivot Point. Pivot Point developed its own training method that is a system of learning that completely revolutionized hair and beauty education. This offers to the students the highest degree of manipulative skills and theory which meet the standards and requirements of the State Board of Cosmetology and of other careers in the world of hair and beauty. This knowledge and ability is achieved first through lecture and demonstration followed by actual work in a salon atmosphere. Students receive a minimum of 1800 clock hours of lecture and clinical experience.

To successfully complete the program students must:

- (1) Earn a grade of "C" or higher in all major courses with a COSM alpha.
- (2) Clock in the required areas, a minimum of 1800 hours for either the Certificate of Achievement or the Associate in Science degree.

As stated in the Rules and Regulations of the Board of Cosmetology, students who resume their beauty culture courses after a lapse of three years or more shall not receive credit for previous course work.

Admission requirement: submit a high school diploma or its equivalent. Applicants without the high school diploma or its equivalent will be denied admission to the Cosmetology Program.

A basic cosmetology kit, uniform, and textbooks cost approximately \$900.

A Certificate of Completion is available in Cosmetology Instructor Training. Requirements are 600 hours in COSM 80V, SP 151 and either FIRE 103 or FSHN 185 (19 credits).

A Certificate of Attendance is available in Cosmetology Instructor Training. Requirements are 600 hours in COSM 80V and SP 151 (7-16 credits).

A Certification of Completion is also available in esthetician training. This course of study specializes in the care and health of skin through prevention and management. Knowledge and ability is achieved first through lecture and demonstration followed by practice on clients in a salon atmosphere. Procedures are those used in spas and skin care salons. These courses prepare the student for the State Board of cosmetology licensing examination in Esthetics. Upon passing the State Board examination, the individual becomes a licensed esthetician.

# Program Prerequisites:

| ENG 20B & C 8  | oloma or equivalent<br>& D & E OR ESL 11 & 13<br>cement in ENG 21/60 | Certificate<br>of<br>Achievement<br>Credits | Associate<br>in Applied<br>Science<br>Degree<br>Credits |
|----------------|--|---|---|
| First Semester |  |   |   |
| COSM 20        | Elementary Cosmetology Theory  | 5   | 5   |
| COSM 21L       | Elementary Cosmetology Lab   | 10  | 10  |
| SP 50*         | Working with Clients   | 3   | 3   |
|                |  | 18  | 18  |

| Second Semes    | ter                               |                |           |
|-----------------|-----------------------------------|----------------|-----------|
| COSM 30         | Intermediate Cosmetology Theory   | 3              | 3         |
| COSM 31L        | Intermediate Cosmetology Lab      | 10             | 10        |
| CHEM 55*        | Fundamentals of Cosmetic          |                |           |
|                 | Chemistry 3                       |                | 3         |
|                 |                                   | 16             | 16        |
| *SP 50 taken co | oncurrently with COSM 20-21L; CHE | M 55, with COS | M 30-31L. |
| Third Semester  | •                                 |                |           |
| COSM 40         | Advanced Cosmetology Theory       | 3              | 3         |
| COSM 41L        | Advanced Cosmetology Lab          | 10             | 10        |
| General Educati | on Requirement (ART 30 or         |                |           |
| BUS 20)         |                                   |                | 3         |
|                 |                                   | 13             | 16        |
| Fourth Semest   | er***                             |                |           |
| Elective        |                                   |                | 3         |
| General Educati | on Requirements**                 |                | 9         |
|                 |                                   |                | 12        |
| Minimum Credit  | s Required (See Note)             | 47             | 62        |

<sup>\*\*</sup>General Education Requirements for the A.A.S. degree are listed under Degrees and Certificates.

**Note:** Students must meet the minimum proficiency standards in communication and computation established by the College to qualify for the Certificate of Achievement.

| ESTHETICS IN COSMETOLOGY**** |                             | Certificate<br>of<br>Completion<br>Credits |
|------------------------------|-----------------------------|--|
| First Semester               |                             |  |
| COSM 60                      | Basic Esthetician Theory    | 5  |
| COSM 61L                     | Basic Esthetician Lab       | 5  |
|                              |                             | 10   |
| Second Semes                 | ter                         |  |
| COSM 70                      | Advanced Esthetician Theory | 5  |
| COSM 71L                     | Advanced Esthetician Lab    | 5  |
|                              |                             | 10   |
| Minimum Credits Required     |                             | 20   |

<sup>\*\*\*\*</sup>The Certificate of Completion in Esthetics requires the student to earn a grade of "C" or higher in all courses in the esthetician certificate program with a minimum of 600 hours in the required areas.

#### **Advisory Committee**

Lloyd Horibe, Hairscapes Elaine Kimura, Skin Care by Elaine Benedetto Palmeri, J & J Beauty Supplies, Inc. Hanalei Ramirez, Salon 808 Toni Turk-Cook, Supercuts Hawai'i

<sup>\*\*\*</sup>Students with fewer than 1800 hours of Cosmetology must also take COSM 50V to accumulate required hours during the 4th term.

# **DIESEL MECHANICS TECHNOLOGY (DISL)**

Address: 445 Kokea St., Honolulu HI 96817/ph. 842-5498

Faculty: Paul Onomura.

The program is designed to provide the student knowledge of heavy duty truck engines and chassis components and to develop the student's proficiency in the repair and maintenance of heavy duty truck equipment.

Cost of tools, supplies, and textbooks is approximately \$1500.

| Cost of tools             | , supplies, and textbooks is approxim | ately \$1500.                               |   |
|---------------------------|---------------------------------------|---|---|
| & 17 OR Plac              | D & E OR ESL 11 & 13                  | Certificate<br>of<br>Achievement<br>Credits | Associate in Applied Science Degree Credits |
| First Semester            |                                       |   |   |
| DISL 20                   | Technical Practices                   | 2   | 2   |
| DISL 22                   | R&R Components                        | 3   | 3   |
| DISL 24                   | Operator Orientation                  | 2   | 2<br>2<br>3                                 |
| DISL 26                   | Basic Chassis Systems                 | 2   | 2   |
| DISL 28                   | Lubrication and Servicing             | 3   | 3   |
| WELD 19                   | Welding for Trades and Industry       | 3   | 3   |
| MATH 50                   | Technical Mathematics I               |   |   |
| or MATH 53                | Technical-Occupational Math           |   | 3/4   |
|                           |                                       | 15  | 18/19                                       |
| Second Semes              |                                       |   |   |
| DISL 30                   | Differential Rebuilding               | 2   | 2   |
| DISL 32                   | Transmission Rebuilding               | 4   | 4   |
| DISL 34                   | Brakes — Air and Hydraulic            | 3   | 3   |
| DISL 36                   | Suspension and Steering               | 3   | 3   |
| ENG 51                    | Technical Reading                     |   | 3   |
| or ENG 60                 | Technical Writing                     |   |   |
| or ENG 100                | Expository Writing                    |   |   |
| Recommend                 | ed: ENG 51                            |   |   |
|                           |                                       | 12  | 15  |
| Third Semester            |                                       |   | _   |
| DISL 40                   | Diesel Engine Fundamentals            |   | 2   |
| DISL 42                   | Detroit Diesel Engines                |   | 3   |
| DISL 44                   | Cummins Diesel Engines                |   | 3   |
| DISL 46                   | Caterpillar Diesel Engines            |   | 2   |
| DISL 48                   | International Diesel Engines          |   | 2   |
| PHYS 56                   | Basic Electrical Theory and Lab       |   | 4   |
|                           |                                       |   | 16  |
| Fourth Semest             |                                       |   | 0   |
| DISL 52                   | Electrical Systems                    |   | 3   |
| DISL 54                   | Diesel Injection Systems              |   | 3   |
| DISL 56                   | Hydraulics                            |   | 2   |
| DISL 60                   | Diagnostics                           |   | 4   |
| ICS 100T                  | Computing Literacy and                |   | 3   |
| 100 100                   | Applications (Transportation)         | _   | 0   |
| or ICS 100                | Computing Literacy and Applications   | 3   | 3   |
|                           | ed: ICS 100T                          |   |   |
| PSY 180                   | Psychology of Work                    |   | 0   |
| or PSY 100                | Survey of Psychology                  |   | 3   |
| Recommend                 | eu: ro r 180                          |   | 10  |
| Minimum Credit            | s Roquired                            | 27  | <u>18</u> 67/68                             |
| iviii iii iiui iii Oreali | o i iequileu                          | ۷1  | 01/00                                       |

#### CERTIFICATES OF COMPLETION

Program Prerequisite:

ENG 20B & C & D & E OR ESL 11 & 13 & 17 OR Placement in ENG 21/51

#### MATH 20B & C & D OR Placement in MATH 50/53

| Certificate Description:                | Lube and<br>Servicing | Differential<br>Rebuilding | Transmission<br>Rebuilding | Brake<br>Systems |
|---|-----------------------|----------------------------|----------------------------|------------------|
| First Semester                          |                       |                            |                            |                  |
| DISL 20                                 | 2                     | 2                          | 2                          | 2                |
| Technical Practices                     |                       |                            |                            |                  |
| DISL 22                                 | 3                     | 3                          | 3                          | 3                |
| R & R Components                        |                       |                            |                            |                  |
| DISL 24                                 | 2                     | 2                          | 2                          | 2                |
| Operator Orientation                    |                       |                            |                            |                  |
| DISL 26                                 | 2                     | 2                          | 2                          | 2                |
| Basic Chassis Systems                   |                       |                            |                            |                  |
| DISL 28                                 | 3                     | 3                          | 3                          | 3                |
| Lubrication and Servicing               |                       |                            |                            |                  |
|   | 12                    | 12                         | 12                         | 12               |
| Second Semester Differential Rebuilding |                       |                            |                            |                  |
| DISL 30                                 |                       | 2                          |                            |                  |
| Transmission Rebuilding                 |                       |                            |                            |                  |
| DISL 32                                 |                       |                            | 4                          |                  |
| Brakes — Air and Hydraulic              |                       |                            |                            | _                |
| DISL 34                                 |                       |                            |                            | 3                |
| Suspension and Steering                 |                       | _                          |                            | _                |
| DISL 36                                 |                       | 3                          | 3                          | 3                |
|   |                       | 5                          | 7                          | 6                |
| Minimum Credits Required                | 12                    | 17                         | 19                         | 18               |

**Note:** Students must meet the minimum proficiency standards in communication and computation established by the College to qualify for the Certificate of Achievement.

# **Advisory Committee**

Mike Ryan, Sales Representative, Detroit Diesel Allison Winfred Ho, Vice President, Highway Transportation & Contracting Ted Dela Cruz, General Manager, HT & T Truck Center Anthony Shanahan, Foreman, Marine Diesel Repairs & Rental Richard R. DeRego, Manager of Technical Services, Oahu Transit Group

# ELECTRICAL INSTALLATION AND MAINTENANCE TECHNOLOGY (EIMT)

Faculty: Thomas Mikulski, Gordon Pang.

The curriculum is designed to prepare the student to acquire entry level knowledge and manipulative skills for employment in the electrical industry. The program combines theory with laboratory activities as an effective means of developing the skills essential to the electrical trade. The student begins with the fundamentals of electricity and wiring of simple circuits, then progresses to residential interior wiring, three phase alternating current power, and wiring of more complex circuits and equipment. Safety is stressed as an integral part of each shop task. Emphasis is placed on wiring in accordance with the provisions contained in the National Electrical Code.

Cost for textbooks is approximately \$250. Required hand tools cost approximately \$200.

| Program Prerequisites: ENG 20B & C & D & E OR "C" or higher in ESL 11 & 13 & 17 OR Placement in ENG 21/22/51/60 MATH 20B & 20C & 20D OR Placement in MATH 53 |                                   | Certificate<br>of<br>Achievement<br>Credits | Associate<br>in Applied<br>Science<br>Degree<br>Credits |
|--|-----------------------------------|---|---|
| First Semester   |                                   |   |   |
| EIMT 30  | Electrical Installation Theory I  | 4   | 4   |
| EIMT 32  | Electrical Installation I         | 6   | 6   |
| BLPR 22  | Blueprint Reading                 | 3   | 3   |
| MATH 53  | Technical Occupational Math       |   | 4   |
|  |                                   | 13  | 17  |
| Second Semes   | ter                               |   |   |
| EIMT 44  | AC/DC Systems and Equipment       | 4   | 4   |
| EIMT 46  | Electrical Maintenance and Repair | 6   | 6   |
| COMMUNICATION  | ON (Rec: ENG 60 or 120)           |   | 3   |
| PHYS 53  | Fundamentals of Electricity       | 4   | 4   |
|  |                                   | 14  | 17  |
| Third Semester   | •                                 |   |   |
| EIMT 50  | Solid State Control               | 4   | 4   |
| EIMT 52  | Solid State Control Lab           | 6   | 6   |
| General Education  | on Requirements*                  |   |   |
| (Rec: ICS 100)   |                                   |   | 6   |
|  |                                   | 10  | 16  |
| Fourth Semeste   | er                                |   |   |
| EIMT 40  | Electrical Installation Theory II | 4   | 4   |
| EIMT 42  | Electrical Installation II        | 6   | 6   |
| General Education  | on Requirement*                   |   | 3   |
|  |                                   | 10  | 13  |
| Minimum Credits Required 4   |                                   |   | 63  |
|  |                                   |   |   |

<sup>\*</sup>General Education Requirements for this A.A.S. program are listed —nder Degrees and Certificates.

**Note:** Students must meet the minimum proficiency standards in communication established by the College to qualify for the Certificate of Achievement.

# **Advisory Committee**

Ricky Almodova, Program Specialist, International Brotherhood of Electrical Workers, Local Union 1186
Brain Merrit, Merrit Electric
Sean Mounthongdy, Frito-Lay of Hawaii
Shannon Sullivan, Chief Engineer, Hawai'i Baking Co.



Electrical Installation and Maintenance Technology faculty members and students.

#### **FASHION TECHNOLOGY (FT)**

Faculty: Joy Nagaue

The curriculum is designed to provide competency for a wide range of occupations in the fashion industry. Theoretical knowledge and practical skills are applied in clothing construction, industrial sewing, flat patternmaking, and designing, textiles, fashion sketching, grading, marking and cutting and computerized grading and marking. Internship or cooperative education experiences are available to interested students. This broad background enables the student to select various occupations such as designer, patternmaker, cutter, or custom dressmaker. Cost for textbooks is approximately \$100-\$150 per semester. The cost of supplies vary depending on projects (\$50-\$200 per semester).

The program offers an associate degree, certificates of achievement, completion and competence. Faculty members assist students in selecting the courses related to their talents and interest.

|             |                                | Certificate<br>of<br>Completion<br>Credits | Certificate<br>of<br>Achievement<br>Credits | in Applied |
|-------------|--------------------------------|--|---|------------|
| FT 28       | Introduction to Industrial Sew | ing 3                                      | 3   | 3          |
| FT 30       | Basic Creative Designing       | 3  | 3   | 3          |
| FT 36       | Draping                        |  | 3   | 3          |
| FT 40       | Fabric Analysis                | 3  | 3   | 3          |
| FT 43       | Cutting Room Functions         |  | 3   | 3          |
| FT 111      | Art and Design in Fashion      | 3  | 3   | 3          |
| FT 205      | Clothing Construction Method   | ds 4                                       | 4   | 4          |
| FT 215      | Flat Patternmaking I           | 3  | 3   | 3          |
| FT 216      | Fashion Design and Sketching   | g  | 3   | 3          |
| FT 217      | Flat Patternmaking II          | 3  | 3   | 3          |
| FT 237      | Pattern Grading                |  |   | 3          |
| FT 29       | Textile Art                    |  | 3   | 3          |
| Fashion Tec | hnology Electives              |  | 9   | 9          |
| ICS 100     | Computing Literacy and Appl    | ication                                    |   | 3          |
| Other Gener | ral Education Requirements*    |  |   | 12         |
| Minimum Cr  | edits Required                 | 22   | 43  | 61         |

<sup>\*</sup>General Education Requirements for the A.A.S. degree are listed under Degrees and Certificates.

# Flat Patternmaking

| Program Prerequisites: FT 28 or demonstrated ability |                       | Certificate<br>of<br>Competence<br>Credits |
|--|-----------------------|--|
| FT 215   | Flat Patternmaking I  | 3  |
| FT 217   | Flat Patternmaking II | 3  |
| FT 237   | Pattern Grading       | 3  |

Contificato

## **Cutting Room Functions**

|        |                                   | Certification<br>of<br>Competence<br>Credits |
|--------|-----------------------------------|--|
| FT 43  | Cutting Room Functions            | 3  |
| FT 28  | Introduction to Industrial Sewing | 3  |
| FT 215 | Flat Patternmaking I              | 3  |
|        |                                   | 9  |

## Computerized Grading and Marking

| Program Pr<br>FT 43 and 2 | of<br>Competence<br>Credits                     |      |
|---------------------------|---|------|
| FT 60 and                 | Intro to Computer Aided Apparel Manufacturing   | 2    |
| FT 61 and                 | Computer Aided Digitizing                       | 2    |
| FT 62 and                 | Computer Aided Grading                          | 2    |
| FT 63<br>or               | Computer Aided Marking                          | 2    |
| FT 160                    | Computer Aided Digitizing, Grading and M arking | 4    |
|                           |   | 8-10 |

# **Fashion Technology Electives**

A minimum of 9 credits of FT electives are required for the Certificate of Achievement and Associate in Applied Science Degree. The FT electives must be chosen from the following list.

| FT 32<br>FT 38<br>FT 41 | Advanced Apparel Design Draping and Design Apparel Design Introduction to Computer Aided Manufacturing | 3 3 |
|-------------------------|--|-----|
|                         | Introduction to Computer Aided Manufacturing   | 2   |
| FT 61 and               | Computer Aided Digitizing  | 2   |
| FT 62 and               | Computer Aided Grading   | 2   |
| FT 63<br>or             | Computer Aided Marking   | 2   |
| FT 160                  | Computer Aided Digitizing, Grading and Marking   | 4   |
| FT 90                   | Special Topics   | 3   |
| FT 93V or               | Cooperative Education  | 1-4 |
| FT 193V                 | Cooperative Education  | 1-4 |

# **Advisory Committee**

Elsie Casamina-Fernandez, Elsie's Designs Joy Graham, French Curve Allan James, Hawaiian Heritage by Allan James Karen Kamahele, Hilo Hattie Maria Martin, No Ka Oi Producers Carol Pregill, Hawaii Fashion Industry Association Gail Rabideau, You and Me Naturally Paula Rath, Paula Rath Designs Wendy Rosen, X-Cel Hawaii, Inc. Linda Salz-Goto, Bevlin

# FIRE AND ENVIRONMENTAL EMERGENCY RESPONSE (FIRE)

Faculty: Stacy Rogers.

The Fire and Environmental Emergency Response Program Courses are provided to meet the needs of the in-service professional as well as the student who is not employed by the Fire Service. This Program is designed to prepare the student academically for the Fire Service Field, i.e., insurance adjuster, investigator, and safety and building inspector.

A student at Honolulu Community College, who completes 6 units of Fire and Environmental Emergency Response college credit, may receive up to 6 units of Elective Fire and Environmental Emergency Response credits for completing basic recruitment training for fire fighting as required by government agencies. In addition the student may be eligible to participate in a cooperative work program that will allow up to a maximum of 6 units of Elective Fire and Environmental Emergency Response credits for completion of this program.

An Associate in Applied Science Degree is awarded to students who complete the General Education requirements\* and the 37 units of Fire and Environmental Emergency Response credits curricula. A Certificate of Achievement may be awarded to students who complete 30 hours of the required and elective Fire and Environmental Emergency Response credits.

Health and physical requirements vary with the employers in the Fire and Environmental Emergency Response field so prospective students should seek advice if they have questionable impairments or impediments before enrollment.

Cost of Textbooks is approximately \$100-\$250 per semester.

| Program Prerequisites: "C" or higher in ENG 22 or in 60 OR Placement in ENG 100 MATH 20B & C & D & E & F OR Placement in MATH 50/53 |                                    | Certificate<br>of<br>Achievement<br>Credits | Associate<br>in Applied<br>Science<br>Degree<br>Credits |
|---|------------------------------------|---|---|
| First Semester  |                                    |   |   |
| FIRE 101  | Essentials of Fire Suppression     | 3   | 3   |
| FIRE 102  | Fundamentals of Fire Prevention    | 3   | 3   |
| FIRE 107  | Fire Fighting Tactics & Strategies | 3   | 3   |
| General Education Requirement (MATH 50)   |                                    |   | 3   |
| General Educat  | ion Requirement (Communications)*  |   | 3   |
|   |                                    | 9   | 15  |
| Second Semes  | ster                               |   |   |
| FIRE 202  | Fire Hydraulics                    |   | 3   |
| FIRE Electives  |                                    | 6   | 6   |
| CHEM 105  | Environmental Chemistry            |   | 4   |
| General Educat  | ion Requirements*                  |   | 3   |
|   |                                    | 6   | 16  |

<sup>\*</sup>General Education Requirements for the A.A.S. degree are listed under Degrees and Certificates.

| Third Semester                 |                                |   |    |
|--------------------------------|--------------------------------|---|----|
| FIRE 203                       | Intro to Hazardous Substances  |   |    |
|                                | in Emergency Response          |   | 3  |
| FIRE Electives                 |                                | 9 | 6  |
| ENG 100                        | Composition I                  |   | 3  |
| ICS 100                        | Computing Literacy and         |   |    |
|                                | Applications                   |   | 3  |
|                                |                                | 9 | 15 |
| Fourth Semest                  | er                             |   |    |
| FIRE 111                       | Management in the Fire Service | 3 | 3  |
| FIRE Electives                 |                                | 3 | 7  |
| PHYS 51V                       | Technical Physics              |   | 4  |
|                                |                                | 6 | 14 |
| Minimum Credits Required 30 60 |                                |   |    |

**Note:** Students must meet the minimum proficiency standards in communication and computation established by the College to qualify for the Certificate of Achievement.

The following General Education courses are highly recommended for Fire and Environmental Emergency Response students: SP 151, Personal and Public Speech, PSY 180, Psychology of Work. The following Fire and Environmental Emergency Response electives are highly recommended: FIRE 103, Medical Emergency First Responder, and FIRE 117, Basic Rescue in the Fire Service. English 102, College Reading Skills is highly recommended as well.

#### **Advisory Committee**

Sam Danaway, Fire Protection Engineering Consultant, S.S. Danaway and Associates

Ken Higa, Manager of Operations, Hawai'i, Unocal

David L. Kaea. Training Chief, Federal Fire Training Division

James Kalawa, Fire Chief, D.O.T., State of Hawai'i, Honolulu International Airport Attilio Leonardi, Assistant Chief, Fire Department, City and County of Honolulu

Jack Minassian, Fire Management Officer, Hawai'i National Park

William A. Moore, Chief, Fire Protection, Hickam Air Force Base

August Range, Coordinator, Hawai'i State Fire Council

<sup>\*</sup> General education requirements for the A.A.S. Degree are listed under Degrees and Certificates and must be 100 level or higher, except for Math 50 and Phys. 51V.

#### **HUMAN SERVICES (HSER)**

**Faculty:** Linda Buck, Gaynel Buxton, Doris Christensen, Pat Gooch, Elliot Higa, Iris McGivern, Eva Moravcik, Miles Nakanishi, Sherry Nolte, Cynthia Uyehara, Lisa Yogi.

Early Childhood Specialists (Children's Centers): Leilani Au, Steve Bobilin, Susanne Carvalho, Linda Matsushita, Janine Konia, Quinetta Wong, Dayna Yee, Lisa Yoshioka.

The Human Services curriculum is designed to prepare the student for a variety of occupations which involve working with children or adults. By carefully selecting courses, students may plan their programs so that they will be prepared to transfer to professional training programs in education, human development, social work and other human service fields.

Field Experience (Practicum) is an important feature of the Human Services Program. Work Practicum is supervised work experience related to the student's field of study and approved by the Practicum instructor. The field experience may be the student's regular job or a volunteer assignment. Practicum is controlled by Honolulu Community College and not by the officials of the field site. Through Practicum Seminar (SOSE 51/ED 151) the Practicum student has weekly or biweekly interaction with the Practicum Instructor. Appropriate assignments, as determined by the Instructor, are required for completion of Practicum and Practicum Seminar. The standard college grading system is utilized. Seventy-five hours of work per semester is required for each credit earned in Practicum. Course designations for Practicum are ED 191V (Practicum/Early Childhood) and SOSE 91V (Work Practicum/Community Service). Course descriptions are listed in the Course Description section of this catalog.

The cost of textbooks is approximately \$200-\$300 per semester for education course. Students may also expect to spend from \$50-\$75 per semester for additional course materials.

#### Early Childhood Education Option

The early childhood education option was revised effective Fall 2002. Students who entered the program at an earlier date may choose to complete the program under the requirements of the catalog for the year in which they entered. Consultation with an academic counselor and an early childhood advisor is recommended for all students.

Early Childhood is a field with many employment opportunities. The Certificate programs allow graduates to enter the early childhood field—usually at assistant levels. Students interested in obtaining the national Child Development Associate (CDA) credential may take specific courses to fulfill formal training requirements while getting "on-the-job" experience and fulfilling other requirements independently. The two-year Associate in Applied Science degree program in combination with 6 months work experience prepares students for immediate employment as teachers in private early childhood programs for infants and toddlers or preschoolers.

Variations to the basic requirements will accommodate school age child care workers, family child care providers, nannies, home visitors, parent educators, special education assistants, or supervisors and directors of private early childhood programs. All courses in the Certificate of Achievement program will be required plus specific additions.

The course of study leading to the A.A.S. degree is developmentally-based and emphasizes observation and opportunities to participate in programs with children

through class assignments and practicum experiences, both on campus and in the community. The outlined courses offer candidates an in-depth understanding of the field and the opportunity to develop their skills working with children and families.

Criminal record history checks are a workplace requirement in early childhood education and care settings. A criminal record history check is conducted in ED 196/196L and must be completed satisfactorily prior to enrollment in courses with assignments involving working with children.

To successfully complete the program, students must earn a grade of "C" or higher in all courses with an ED alpha.

The Certificate of Completion in Early Childhood Education (ECE) requires a minimum 17 credit sequence designed to give the candidate the most basic skills to work with children from infancy through eight years of age. To obtain the Certi-ficate of Completion, students must also demonstrate proficiency in English at ENG 22 and in Math at MATH 20B & C & D levels.

The Certificate of Competence in Child Development Associate (CDA) Preparation is obtained by completing three courses which meet the formal training requirements of the national CDA credential.

| CHILD DEVELO   | Certificate of Competence                        |         |
|----------------|--|---------|
| COURSES TITLE  |  | Credits |
| ED 105         | Introduction to Early Childhood Education        | 3       |
| ED 110         | Developmentally Appropriate Practices            | 3       |
| ED 131         | Early Childhood Development: Theory into Practic | e3      |
| Minimum Credit | 9  |         |

The Certificate of Competence in Child Development Associate (CDA) preparation meets requirements for:

6 credits beyond B.Ed. for teacher in private early childhood programs licensed by Department of Human Services (DHS)

120 clock hours of formal training for the CDA credential

|                |   | Certificate of Completion |
|----------------|---|---------------------------|
| COURSES        | TITLE   | Credits                   |
| ED 105         | Introduction to Early Childhood Education         | 3                         |
| ED 110         | Developmentally Appropriate Practices             | 3                         |
| ED 131         | Early Childhood Development: Theory into Practice | ∍ 3                       |
| ED 140         | Guiding Young Children in Group Settings          | 3                         |
| ED 196L        | Beginning Child Development Laboratory            | 1                         |
| ED 196         | Beginning Lab Seminar                             | 1                         |
| ED 170         | Introduction to Working with Infants & Toddlers   | 3                         |
| Minimum Credit | 17  |                           |

# The Certificate of Completion in Early Childhood Educational Meets Requirements for:

120 clock hours of formal training for CDA Credential (ED 105, ED 110, ED 131) 12 credits ECE/CD (Child Development) for Caregiver for Infant-Toddlers

9 credits ECE/CD beyond A.S. or A.A. for Assistant Teacher

12 credits ECE/CD beyond B.S. or B.A. for teacher in private early childhood programs licensed by the Department of Human Services (DHS).

|                |                                   | Certificate of<br>Achievement<br>Credits |
|----------------|-----------------------------------|--|
|                | Certificate of Completion Credits | 17                                       |
| ED 215         | Healthy Children                  | 3  |
| FAMR 296       | Working with People               | 3  |
| ED 245         | Child, Family and Community       | 3  |
| ED 191V        | Practicum in Early Childhood      | 3  |
| ED 151         | Practicum Seminar                 | 1  |
| Electives      | (must be numbered 100 or higher)  | 3  |
| Minimum Credit | 33                                |  |

**Note**: To obtain the Early Childhood Education Certificate of Achievement, students must also demonstrate proficiency at ENG 22 and MATH 50 or MATH 25 levels.

| EARLY CHILDHOOD EDUCATION                     | Associate<br>in Applied<br>Science<br>Degree<br>Credits |
|---|---|
| Certificate of Achievement Credits            | 33  |
| A.A.S. Degree General Education Requirements* | 15  |
| Preschool Group OR the Infant-Toddler Group   | 18  |
| Minimum Credits Required                      | 66  |

<sup>\*</sup>General Education Requirements for the A.A.S. degree are listed under Degrees and Certificates and may be numbered below 100 and/or numbered 100 and above.

Note: Elective courses may be numbered below 100 and/or numbered 100 and above.

#### The A.A.S. Degree Meets the Requirements for

Teacher, Lead Caregiver, Teacher-Director, Director of a Private Preschool (1–2 yrs. experience also required) in programs licensed by the State Department of Human Services.

**Note:** Students must meet the proficiency standards in communication at the ENG 22 level and computation at the MATH 50 or MATH 25 level to qualify for the Early Childhood Education Certificate of Achievement and A.A.S. degree.

| Preschool Grou | up<br>TITLE  | Credits |
|----------------|--|---------|
| FAMR 230 or    | Human Development or                               |         |
| FAMR 232       | Human Development II                               | 3       |
| ED 234         | Observation and Assessment                         | 2       |
| ED 261         | Preschool Curriculum I                             | 3       |
| ED 262         | Preschool Curriculum II                            | 3       |
| ED 269         | Integrated Curriculum in Early Childhood Education | 3       |
| ED 296P        | Preschool Laboratory                               | 2       |
| ED 296C        | Preschool Seminar                                  | 2       |
|                | Preschool Group Credits                            | 18      |
|                |  |         |

# Infant-Toddler Group

| FAMR 230 or | Human Development or                          |    |
|-------------|---|----|
| FAMR 232    | Human Development II                          | 3  |
| ED 234      | Observation and Assessment                    | 2  |
| ED 296I     | Infant/Toddler Laboratory                     | 2  |
| ED 296B     | Infant-Toddler Seminar                        | 2  |
| ED 274      | Infant-Toddler Environments and Relationships | 3  |
| ED 261 or   | Preschool Curriculum I or                     |    |
| ED 262      | Preschool Curriculum II                       | 3  |
| Electives   | (must be numbered 100 or higher)              | 3  |
|             | Infant-Toddler Group Credits                  | 18 |

Note: Consult your academic and/or program advisor for assistance in planning an education program for specific career goals.

PACE (Professional and Career Education for Early Childhood) workshops are geared to meet training and enrichment needs of early childhood practitioners on Oahu. Four core introductory courses of Honolulu Community College's Early Childhood Education program are offered in a non-credit workshop format of sixteen 3-hour class sessions each. The workshops can be taken in any order, at any time. Participants who complete all sixteen workshops in a course may apply for community college credit.

PACE is accessible (workshops offered in various places on Oahu during the evening and on Saturdays) and flexible. For information on program, schedules, and registration, call PACE at 845-9496.

#### **Advisory Committee**

Lana Antonellas, Preschool Specialist, Kama'aina Kids Wayna Buch, Coordinator, Oahu Community Council, Good Beginnings Alliance Toni Farm, Deputy Director, Oahu Head Start Stephanie Feeney, Professor, Early Childhood Education, UH Manoa Deborah Ishida, Child and Youth Services Specialist, U.S. Army Pacific



Early Childhood Education

#### **Community Service Option**

The Community Service Option is designed for people interested in working as human service workers in diverse settings such as group homes, mental retardation and community mental health centers; family, child, and youth service agencies; and programs concerned with alcoholism, drug abuse, family violence, and aging. Field experience or work practicum is an important feature of this program in which a student has supervised work experiences in a community setting. The program offers a Certificate of Completion in Adult Services, Certificate of Achievement, and an Associate in Applied Science degree. (SEE SHARON OTA FOR CERTIFICATE OF COMPLETION REQUIREMENTS.)

| COURSES         | TITLE                               | Certificate<br>of<br>Achievement<br>Credits | Associate<br>in Applied<br>Science<br>Degree<br>Credits |
|-----------------|-------------------------------------|---|---|
| FAMR 100        | Personal & Professional Development | nt 3  | 3   |
| FAMR 141        | Parenting                           | 3   | 3   |
| FAMR 230        | Human Development                   | 3   | 3   |
| FAMR 296        | Working with People                 | 3   | 3   |
| KLS 195         | Personal Health and Wellnexx        | 3   | 3   |
| SOSE 21         | Family Dynamics & the Social        |   |   |
|                 | Work Interview 3                    |   | 3   |
| SOSE 55         | Individual Counseling               | 3   | 3   |
| SOSE 51         | Practicum Seminar                   | 1–2   | 2–3   |
| SOSE 91V        | Work Practicum/Community Service    | e 3-6                                       | 6–9   |
| SW 200          | The Field of Social Work            | 3   | 3   |
| ED, FSHN, FAM   | R, HSER, HLTH, IS, SOSE or          |   |   |
| SW electives    |                                     | 2-3   | 1–13  |
| General Educati | on Requirements and Electives*      |   | 15-30   |
| Minimum Credit  | s Required                          | 30-31                                       | 60  |

<sup>\*</sup>General Education Requirements for the A.A.S. degree are listed under Degrees and Certificates.

#### **Advisory Committee**

Cathy Alana, Hawaii Drug Court, Circuit Court of the First Circuit, The Judiciary Nathan Chang, Chair, Bachelor of Social Work Program, UH Manoa, School of Social Work

Paige Demecilio, Child and Family Service, Domestic Abuse Shelter Programs Wendall Omura, Department of Human Services, Child Welfare Services, Assessment and Case Management Unit #2

Greg Tanida, Mental Health Services, Kaiser Permanente

#### **INDUSTRIAL EDUCATION (IED)**

A coordinated undergraduate program of preparation for Industrial Arts teachers has been established between the University of Hawai'i, College of Education, and Honolulu Community College. Graduates may transfer to the College of Education to complete general education, professional education, and teaching field requirements for the Bachelor's Degree. The cost of textbooks and materials will depend upon the teaching field.

Associate in Applied **Program Prerequisites:** Science "C" or higher in ENG 22 or in 60 OR Placement in ENG 100 Degree "C" or higher in MATH 25 OR Placement in MATH 100 Credits Associate in Applied Science Degree Requirements: I. General Education Core Semester Credits\* ..... Communications: 1 semester course in English and 1 semester course in Speech English 100 Speech 200 Quantitative and Logical Reasoning: 1 semester course Mathematics 100 or higher, PHIL 110 World Civilization: 2 semester courses History 151, 152 Humanities: 1 semester course American Studies 201, 202 Art 101, 107, 108, 170, 180; Theatre 101, 201 English 250, 251, 252, 253, 254, 255, 256, 257 History 241, 242, 281, 282; Linguistics 102 Music 106, 108; Philosophy 100, 101, 102, 200, 201; Religion 150, 151, 200, 201, 203, 204 Natural Sciences: 1 semester course (including lab) Chemistry 100-100L, 151-151L, 161-161L, 162-162L; Physics 100-100L, 151-151L, 152-152L, 170-170L Social Sciences: 1 semester course Anthropology 150, 200; Economics 120 or 130, 131: Family Resources 230; Geography 102, 151; Political Science 110, 271; Psychology 100, 170, 240; Sociology 100, 200, 214, 218, 231, 251. II. (Proposed Technology Core listed here is pending approval. Also pending is a proposal to substitute courses from other UH Community Colleges in the Technology Core.) The Technology Core consists of programs of courses in seven areas. The 36 credits required in the Technology Core must include courses from three areas. Students with a C.A. (Certificate of Achievement) or an Associate degree in one of the listed technical areas must earn 18

credits in courses from two other areas.

| 1. Automotive Me<br>AMT 20<br>AMT 30<br>AMT 46  | echanics Technology<br>Introduction to Automotive Mechanics<br>Engines<br>Powertrain and Manual Transmissions                    | (2)<br>(8)<br>(5)                |      |
|---|--|----------------------------------|------|
|   | ng modified and awaiting Board of Regeartment for further information.   | ents approval                    |      |
| 3. Electricity EIMT 30 EIMT 32 PHYS 53  | Electrical Installation Theory I<br>Electrical Installation I<br>Fundamentals of Electricity                                     | (4)<br>(6)<br>(4)                |      |
| 4. Computing, Ele<br>Technology)<br>CENT 112<br>CENT 113<br>CENT 130                      | ectronics & Networking Technology (For<br>Fundamentals of Electronics<br>Digital Electronics<br>Microcomputer Operating Systems  | merly Electro (4) (4) (4)        | nics |
|   | n Arts (Formerly Graphics Technology) Introduction to Production Design Art Preparation I Copy Preparation I                     | (4)<br>(4)<br>(4)                |      |
| 6. Metals Techno<br>WELD 20<br>and] WELD 21<br>or<br>SMP 20<br>and] SMP 21<br>and] SMP 22 | Introduction to Welding Hand and Shop Tools  Hand Tool and Machine Processes Shop Problems Fabrication Processes (Architectural) | (10)<br>(2)<br>(4)<br>(3)<br>(4) |      |
| and] SMP 23 7. Woods CARP 20 Minimum Credits Re   | Introduction to Surface Development  Introduction to Carpentry quired  | (2)                              | 61   |

<sup>\*</sup>Some courses may not satisfy UHM College of Education requirements. Use UHM College of Education Pre Education Core (Secondary) advising sheet to select courses.

Other courses than those listed may be recommended, or substituted, through the waiver/substitution procedure.

<sup>\*\*</sup>All courses are not offered every semester—check the semester schedule for the term's offerings.

III. A total of at least 61 semester hours are required for the A.A.S. degree.

IV. A minimum grade point average of 2.00 (C).

# MARINE TECHNOLOGIES BOAT MAINTENANCE AND REPAIR (MARR)

Address: 10 Sand Island Parkway, Honolulu, HI 96819/ph. 832-3682

Faculty: Robert Perkins

The Boat Maintenance and Repair program is a two-year associate in Applied Science program whose main goal is to prepare individuals for employment in the boat maintenance, repair, and manufacturing industries. Students work on a variety of "real world" repair, service and construction projects. Hands-on instruction is provided in composite boat construction and repair, marine woodworking and joinery, lofting, plug and mold construction and marine spray painting systems. Boat yard operation skills are practiced year round. These include marine straddlelift operation, crane operation, forklift and hydraulic trailer operation. There are also courses that focus on the rigging, mechanical, plumbing, propulsion, and electrical systems of boats. The majority of instruction for the program is held at the Marine Education and Training Center (METC) located on Sand Island, Oahu. The METC is located on Keehi Lagoon and is a state-of-the-art training facility. It features four large work bays to allow work on vessels up to 45 feet, a concrete pier equipped with two cranes to allow work on vessels in the water, finger piers for removing vessels from the water employing a marine straddle-lift, as well as classroom, laboratory, and office space. The METC ranks as one of the premier training facilities in the United States.

For enrollment in the program the students must be able to climb a twelve-foot ladder onto a vessel's deck, get on the deck, walk around the cabin and descend to the ground in a time period of not more than twice the time it takes the instructor to perform these tasks. The students must be able to jump onto the deck of a boat that is eighteen inches below pier level, work in a crouching or standing position for hours at a time, lift 40 pounds from the floor onto a 34 inch high table top, and be physically fit to wear an organic respirator. Each student will be required to obtain a note from a physician stating that the student is capable of wearing an organic respirator. There are many physical demands and hazards of the boat maintenance and repair industry and the program. These include, but are not limited to, occasional heavy lifting, bending, crouching, and working in a cramped position. There will be exposure to woodworking saw blades and cutters, rapidly moving parts, and live electrical circuits. There will be exposure to resins, solvents, fuel, paints, exhaust fumes, and dust. Students may get cuts, abrasions, burns, aches, and pains.

The total cost of tools, textbooks, and supplies for the two-year program is approximately \$1,500.

| Program Prere<br>ENG 20B & C &<br>& 17 OR Plac<br>MATH 20B & C | Associate<br>in Applied<br>Science<br>Degree<br>Credits |       |
|--|---|-------|
| First Semester   |   |       |
| MARR 20  | Introduction to Marine Technology                       | 1     |
| MARR 21  | Boat Hauling Procedures                                 | 4     |
| MARR 22  | Portable Hand Tools and Machinery                       | 1     |
| MARR 24  | Introduction to Composite Technology                    | 3     |
| MARR 25  | Composite Repair Techniques                             | 3     |
| MATH 50  | Technical Mathematics I                                 |       |
| or MATH 53   | Technical-Occupational Math                             | 3/4   |
|  |   | 15/16 |

15/16

| Second Semester          |   |       |  |  |
|--------------------------|---|-------|--|--|
| MARR 29                  | Blueprint Reading for Marine Technicians            | 2     |  |  |
| MARR 30                  | Woodworking   | 3     |  |  |
| MARR 31                  | Yacht Joinery                                       | 3     |  |  |
| MARR 33                  | Marine Finish Systems                               | 4     |  |  |
| PHYS 56                  | Basic Electrical Theory and Lab                     | 4     |  |  |
|                          |   | 16    |  |  |
| Third Semester           | r   |       |  |  |
| MARR 40                  | Marine Blueprint Reading and Lofting                | 3     |  |  |
| MARR 41                  | Mold Station Construction                           | 2     |  |  |
| MARR 42                  | Marine Propulsion Service and Maintenance           | 4     |  |  |
| MARR 43                  | Composite Tooling                                   | 4     |  |  |
| ENG 60                   | Technical Writing                                   | 3     |  |  |
|                          |   | 16    |  |  |
| Fourth Semester          |   |       |  |  |
| MARR 50                  | Mold Fabrication                                    | 3     |  |  |
| MARR 51                  | Composite Production                                | 3     |  |  |
| MARR 52                  | Marine Electrical Systems                           | 2     |  |  |
| MARR 53                  | Marine Plumbing                                     | 2     |  |  |
| MARR 54                  | Sailboat Rigging                                    | 2     |  |  |
| PSY 180                  | Psychology of Work                                  | 3     |  |  |
| ICS 100T                 | Computer Literacy and Applications (Transportation) |       |  |  |
| or ICS 100               | Computer Literacy and Applications                  | 3     |  |  |
| Recommended: ICS 100T    |   |       |  |  |
|                          |   | 18    |  |  |
| Minimum Credits Required |   | 65/66 |  |  |

# **Advisory Committee**

Bill Clifford, President/CEO, Honolulu Shipyard
Freeman Corea, Apprentice Program Director, Pearl Harbor Shipyard
Frank Gibert, Operations Manager, Keehi Marine
Wayne Miyashiro, VP, Senior Division Manager, Servco Marine Supply
George Norcross, President, Epoxy Sales Hawaii, Inc.
Chandler Rowe, General Manager, Plas-Tech, Ltd.
Dennis Smith, President, Marine Surveyors and Consultants
Larry Stenek, Rigging Manager, Art Nelson Sailmaker, Inc.
Karel Tresnak, President, Outrigger Connections

# OCCUPATIONAL AND ENVIRONMENTAL SAFETY MANAGEMENT (OESM)

Faculty: Chulee C. Grove

Occupational and Environmental Safety and Health is one of the fastest growing fields in the country. The two-year OESM program is designed to provide practical training on occupational and environmental safety and health. The curriculum offers a broad background on safety and health program administration, workplace hazard recognition/evaluation/control, workers' compensation principles, hazardous chemical risk assessment, and environmental management. Besides an Associate Degree in OESM, the program offers a Certificate of Achievement in Occupational and Environmental Safety Management.

The OESM program is fully articulated with the Environmental Resource Management Department, California State University-Bakersfield. This provides the OESM majors with an opportunity to obtain a baccalaureate degree in Environmental Resource Management via the Internet.

Graduates from the OESM program are qualified to work as occupational safety and health inspectors, safety officers, and environmental technicians in governmental agencies, environmental consultant firms, construction companies, insurance companies, and other types of private industries. Job placement opportunities are announced throughout the year.

The cost of supplies and textbooks is approximately \$200-\$400 per semester.

| Program Prerequisites: "C" or higher in ENG 22 or in 60 OR Placement in ENG 100 "C" in Math 25 or Placement in MATH 27/100/103/115 |                                      | Certificate<br>of<br>Achievement<br>Credits | Associate<br>in<br>Science<br>Degree<br>Credits |
|--|--------------------------------------|---|---|
| First Semester   |                                      |   |   |
| OESM 101   | Introduction to Occupational         |   |   |
|  | Safety and Health                    | 3   | 3   |
| OESM 106   | Introduction to Environmental Health | 1 3   | 3   |
| CHEM 105   | Environmental Chemistry              | 4   | 4   |
| ENG 100  | Composition I                        |   | 3   |
| BIO 100  | Human Biology                        | 3   | 3   |
|  |                                      | 13  | 16  |
| Second Semester  |                                      |   |   |
| OESM 102   | Safety and Health Standards,         |   |   |
|  | Codes and Regulations                | 3   | 3   |
| OESM 104   | Occupational-Related Diseases        | 3   | 3   |
| OESM Electives   | * (must be numbered 100 or higher    | ) 3   | 3   |
| ICS 100  | Computing Literacy and Applications  | S   | 3   |
| SP 151   | Personal and Public Speech           | 3   | 3   |
|  |                                      | 12  | 15  |

| Third Semester           |                                      |    |    |  |
|--------------------------|--------------------------------------|----|----|--|
| OESM 105                 | Introduction to Industrial Hygiene   | 3  | 3  |  |
| OESM 160                 | Labor and Management Safety Partners | 3  | 3  |  |
| OESM 210                 | Safety Program Management            | 3  | 3  |  |
| OESM Electives           | s* (must be numbered 100 or higher)  | 3  | 6  |  |
| MATH 115                 | Statistics                           |    | 3  |  |
|                          |                                      | 12 | 18 |  |
| Fourth Semester          |                                      |    |    |  |
| ENG 209                  | Business & Managerial Writing        |    | 3  |  |
| OESM 208                 | Techniques of Industrial Hygiene     | 3  | 3  |  |
| OESM 193V                | Cooperative Education                |    | 1  |  |
| OESM Electives           | 6                                    | 6  |    |  |
| PSY 180                  | Psychology of Work                   |    | 3  |  |
|                          |                                      | 9  | 16 |  |
| Minimum Credits Required |                                      | 46 | 65 |  |

**Note:** Students must meet the minimum proficiency standards in communication and computation established by the College to qualify for the Certificate of Achievement.

#### **Advisory Committee**

Jim Beavers, Manager, Safety/Security and Facility, Hawaiian Electric Company Pat Conroy, Manager, Risk Control Services, King & Neel, Inc.

Harlan Hashimoto, Ph.D., Environmental Compliance Administrator, Verizon Hawai'i

Frederick Nakamura, Senior Loss Control Consultant, First Insurance Company Rusty Niau, Manager, Human Resources/Safety, Grace Pacific Corporation Jennifer Shishido, CIH, Administrator, Hawai'i Occupational Safety and Health



Occupational and Environmental Safety Management Hazardous Materials training.

## REFRIGERATION AND AIR CONDITIONING TECHNOLOGY (RAC)

Faculty: Derek Oshiro, Allen Tateishi.

The curriculum is designed to prepare the students for entry into the field of refrigeration and air conditioning by providing a thorough grounding in its fundamental and technical aspects.

The cost of textbooks, supplies, meters, and tools is approximately \$500.

| Program Prerequisites: ENG 20B & C & D & E OR "C"or higher in ESL 11 & 13 & 17 OR Placement in ENG 21/22/51/60 MATH 20B & C & D & E OR Placement in MATH 50 | Certificate of Achievement Credits | Associate<br>in Applied<br>Science<br>Degree<br>Credits |  |
|---|------------------------------------|---|--|
| First Semester  |                                    |   |  |
| RAC 20 Fundamentals of Refrigeration  | 5                                  | 5   |  |
| RAC 22L Refrigeration Laboratory I  | 5                                  | 5   |  |
| BLPR 22 Blueprint Reading   | 3                                  | 3   |  |
| MATH 50 Technical Mathematics I   |                                    |   |  |
| or MATH 53 Technical-Occupational Math  |                                    | 3/4   |  |
|   | 13                                 | 16/17   |  |
| Second Semester   |                                    |   |  |
| RAC 23 Advanced Refrigeration   | 5                                  | 5   |  |
| RAC 24L Refrigeration Laboratory II   | 5                                  | 5   |  |
| RAC 27 Electrical Fundamentals I  | 5                                  | 5   |  |
| General Education Requirement (Communications)*   |                                    | 3   |  |
|   | 15                                 | 18  |  |
| Third Semester  |                                    |   |  |
| RAC 28 Electrical Fundamentals II   | 5                                  | 5   |  |
| RAC 41 Psychrometry and Cooling Load  | 5                                  | 5   |  |
| RAC 42L Air Conditioning Machinery Lab I  | 5                                  | 5   |  |
| General Education Requirement Group A: (PHYS 51V)   | )                                  | 4   |  |
|   | 15                                 | 19  |  |
| Fourth Semester   |                                    |   |  |
| RAC 43 Air Distribution and Air Conditioning  |                                    |   |  |
| Systems   | 5                                  | 5   |  |
| RAC 44L Air Conditioning Machinery  |                                    |   |  |
| Laboratory II   | 5                                  | 5   |  |
| General Education Requirement* (Rec: OESM 101)  | 3                                  | 3   |  |
| General Education Requirement*  |                                    | 3   |  |
|   | 13                                 | 16  |  |
| Minimum Credits Required  | 56                                 | 69/70   |  |

<sup>\*</sup>General Education Requirements for the A.A.S. degree are listed under Degrees and Certificates.

**Note:** Students must meet the minimum proficiency standards in communication established by the College to qualify for the Certificate of Achievement.

#### **Advisory Committee**

John Arizumi, President/Owner, Carrier Hawai'i Richard Mcilhenny, President/Owner, Trane Pacific Lester Nakata, President, Oahu Sales

# SHEET METAL AND PLASTICS TECHNOLOGY (SMP)

Faculty: Danny Aiu

This curriculum is designed to qualify students for entry into the field of sheet metal as advanced apprentices. They will develop skills in fabricating air conditioning ducts; architectural metal work; welding and fabricating plastics and pattern development.

The cost of tools, instruments, and textbooks is approximately \$200.

|                   |                                     | Certificate<br>of<br>Achievement<br>Credits | Associate<br>in Applied<br>Science<br>Degree<br>Credits |
|-------------------|-------------------------------------|---|---|
| First Semester    |                                     |   |   |
| SMP 20            | Hand Tool and Machine               |   |   |
|                   | Processes                           | 4   | 4   |
| SMP 21            | Shop Problems                       | 3   | 3   |
| SMP 22            | Fabrication Processes               |   |   |
|                   | (Architectural)                     | 4   | 4   |
| SMP 23            | Introduction to Surface             |   |   |
|                   | Development                         | 2   | 2   |
| MATH 50           | Technical Mathematics I             |   |   |
| or MATH 53        | Technical-Occupational Math         | 3/4   | 3/4   |
|                   |                                     | 16/17                                       | 16/17   |
| Second Semes      | tor                                 |   |   |
| SMP 24            | Advanced Fabrication Processes      |   |   |
| OIVII 24          | (Architectural)                     | 4   | 4   |
| SMP 25            | Air Conditioning Fabrication        | 4   | 4   |
| SMP 26            | Pattern Development I               | 2   | 2   |
| BLPR 22           | Blueprint Reading                   | 3   | 3   |
| ENG 51            | Technical Reading                   | 3   | 3   |
| or ENG 60         | Technical Neading Technical Writing | 3   | 3   |
| or ENG 100        | Expository Writing                  |   |   |
| Recommend         |                                     |   |   |
| WELD 19           | Welding for Trade and Industry      |   |   |
| WLLD 19           | (for Non-majors)                    |   | 3   |
|                   | (IOI INOII-IIIajois)                |   |   |
|                   |                                     | 16  | 19  |
|                   | (See Substitution note on the ne    | ext page.)                                  |   |
| SMP 41            | Advanced Air Conditioning           |   | 4   |
| CMD 40            | Fabrication                         |   | 4   |
| SMP 43            | Pattern Development II              |   | 2   |
|                   | on Requirement (Group B)            |   | 3   |
| General Education | on Requirement*                     |   | 3   |
|                   |                                     |   | 12  |

<sup>\*</sup>General Education Requirements for the A.A.S. degree are listed under Degrees and Certificates.

**Note:** Students must also meet the proficiency requirements in communication established by the College to qualify for the Certificate of Achievement.

| Fourth Semester (See Substitution note below.) |                                |       |    |  |
|--|--------------------------------|-------|----|--|
| SMP 44   | Blow Pipe Fabrication          |       | 4  |  |
| SMP 45   | Advanced Fabrication (General) |       | 4  |  |
| SMP 46   | Pattern Development III        |       | 2  |  |
| SMP 49   | Advanced Shop Problems         |       | 2  |  |
| General Education Requirement*                 |                                |       | 3  |  |
|  |                                |       | 15 |  |
| Minimum Credits Required 32/33                 |                                | 62/63 |    |  |

<sup>\*</sup>General Education Requirements for the A.A.S. degree are listed under Degrees and Certificates.

Note: Second year coursework will be offered if sufficient enrollment exists. (Industry employs students upon completion of first year.)

**Substitution:** If the College does not offer a third or fourth semester course in the normal sequence, Cooperative Education (SMP 93V) will substitute up to the credits of the required course(s) not scheduled.

#### **Advisory Committee**

Neal Arita, Industry Representative, SMWIA Local 293

Harold Bradshaw, President and Business Representative, SMWIA Local 293 Wai Lik Chan, Vice President, Oahu Plumbing and Sheet Metal, Ltd.

Clyde Fujimoto, Assistant Training Coordinator, Hawaii Sheet Metal Workers Training Fund

Earle Matsuda, President, Heide & Cook, Ltd.

Mel Murakami, Administrator, Hawaii Sheet Metal Workers Training Fund Guy Shibayama, Training Coordinator, Hawaii Sheet Metal Workers Training Fund Arthur Tolentino, Business Representative, SMWIA Local 293

Harry Uyema, Executive Secretary, Sheet Metal Contractors Association



Sheet Metal students and class projects.

#### WELDING TECHNOLOGY (WELD)

Faculty: Charles Kim, Jeffery Lane.

The curriculum is designed to meet the minimum skill standards established by the American Welding Society (AWS) for Entry Level Welders. Training is given in both theory and practical skills in the various phases of welding and cutting.

Cost for tools, books, and supplies is approximately \$450.00. Purchases of additional tools and textbooks may be required each semester.

Certificate of Completion Requirements: WELD 19 (3 cr.) and 21 (2 cr.), PHYS 55 (4 cr.) and WORK 94 (4 cr.). Total credits required: 13. Minimum G.P.A.: 2.00.

| 5.10               |                                   | Certificate<br>of<br>Achievement<br>Credits | Associate<br>in Applied<br>Science<br>Degree<br>Credits |
|--------------------|-----------------------------------|---|---|
| First Semester     |                                   | 0   | 0   |
| WELD 52            | Introduction to Arc I             | 3   | 3   |
| WELD 54            | Introduction to Arc II            | 2   | 2   |
| WELD 56            | Introduction to Arc III           | 2   | 2   |
| WELD 58            | Introduction to Arc IV            | 2   | 2   |
| BLPR 22            | Blueprint Reading and Drafting    | 3   | 3   |
| PHYS 55            | Metallurgy and Plastics           | 4   | 4   |
|                    |                                   | 16  | 16  |
| Second Semes       | tor                               |   |   |
| WELD 60            | Advanced Arc Welding I            | 2   | 2   |
| WELD 62            | Advanced Arc Welding II           | 3   | 3   |
| WELD 64            | Advanced Arc Welding III          | 3   | 3   |
| WELD 66            | Plasma and Air Carbon Arc Cutting |   | 1   |
| WELD 21            | Shop and Hand Tools               | 2   | 2   |
| WELD 68            | Blueprint Reading for Welders     | 3   | 3   |
| MATH 50            | Technical Math I                  |   |   |
| or MATH 53         | Technical-Occupational Math       |   | 3/4   |
|                    |                                   | 14  | 17/18   |
| Third Semester     |                                   |   |   |
| WELD 70            | Oxyacetylene Welding I            |   | 2   |
| WELD 70<br>WELD 72 | Oxyacetylene Welding II           |   | 2   |
| WELD 72<br>WELD 74 | TIG Welding I                     |   | 2   |
| WELD 76            | TIG Welding II                    |   | 2   |
| WELD 78            | Fabrication Techniques            |   | 4   |
| ENG 51             | Technical Reading                 |   | 3   |
| or ENG 60          | Technical Writing                 |   | J   |
| or ENG 100         | Composition I                     |   |   |
| Recommende         | •                                 |   |   |
| riecommende        | a. Liva oi                        |   | 15  |
|                    |                                   |   | 15  |

#### **Fourth Semester**

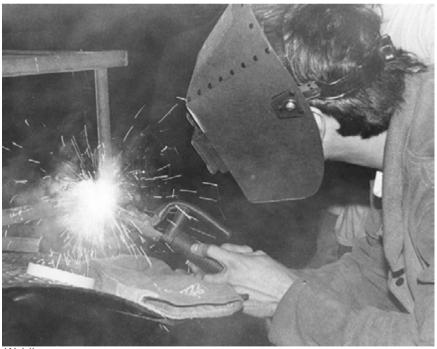
| WELD 80                         | Gas Metal and Flux Cored Arc Weldir   | ng | 5  |
|---------------------------------|---------------------------------------|----|----|
| WELD 82                         | Welding Inspection Testing Principles |    | 1  |
| WELD 84                         | Advanced Fabrication Techniques       |    | 4  |
| General Education Requirements* |                                       |    | 6  |
|                                 |                                       |    | 16 |
| Minimum Credits                 | Required                              | 30 | 64 |

<sup>\*</sup>General Education Requirements for the A.A.S. degree listed under Degrees and Certificates.

Note: Students must also meet the minimum proficiency standards in communication and computation established by the College to qualify for the Certificate of Achievement.

# **Advisory Committee**

Glenn Euginio, Training Coordinator, Ironworkers Training Office, Local Union 625 Melvin McDermott, Owner/Operator, Hawaiian Iron Craft Eugene Paris, Business Manager, Ironworkers Union Local 803 Paul Remigio, Industrial Sales, Gaspro



Welding

# Liberal Arts Departments, Disciplines & Faculty

#### **HUMANITIES**

**Faculty:** Norman Hallett (Emeritus), Terrence Haney, Grace Ihara, Michel Kaiser, Doric Little, Walter McGoldrick (Emeritus), David Panisnick, Patrick Patterson, Barbara Peterson (Emeritus), Ronald Pine, Marcia Roberts-Deutsch, Cynthia Smith, David Wong, Alan Yonan (Emeritus), Richard Ziegler.

The Humanities Department offers courses in American Studies, Art, Asian Studies, Communications, Drama, History, Humanities, Learning Skills, Music, Philosophy, Religion, Speech, Theatre, and Women's Studies.

#### INFORMATION AND COMPUTER SCIENCE

**Faculty:** William Becker, Richard Poole, Samuel Rhoads, Dallas Shiroma, Rose Sumajit.

Although the College does not offer a major in Computer Science, it does offer several courses designed to acquaint students with computer fundamentals and computer programming. The College offers courses that support the Liberal Arts and Pre-business programs. It also offers the introductory computer courses for students planning to transfer to University of Hawai'i at Manoa's Electrical Engineering or Information and Computer Science programs.

#### LANGUAGE ARTS

**Faculty:** Nobuko Aoshima, Keith Crockett, Dolores Donovan, Howard Driver (Emeritus), Muriel Fujii, Joan Gagnon, Joyce Henna, Lei Lani Hinds, Gloria Hooper (Emeritus), Gary James, Jerald (Kimo) Keaulana, Brenda Kwon, Chris McKinney, Jerry Saviano, Charles Whitley.

The Language Arts Department offers courses in English as a Second Language, non-credit and credit courses, Technical Reading, Technical Writing, Composition, Hawaiian Studies, Literature, Linguistics. It also offers Hawaiian, Japanese, Spanish and Tagalog language courses.

#### **MATHEMATICS**

**Faculty:** Alice Bertram, Roy Fujimoto, Carol Hiraoka, Michael Kaczmarski, Frank Mauz, Jim Reeder (Emeritus), Faye Tamakawa, Timothy Wilson, Arlene Yee, Sheila Yoder.

Students planning to take courses in mathematics at Honolulu Community College should be aware that the courses are arranged in a definite sequence, with each course either serving as preparation for a succeeding course or as a final course in one part of the sequence. To help the student better visualize this sequence, a schematic is presented in the "course descriptions" section of the catalog under Mathematics. Specific prerequisites also are listed in the course descriptions section. A grade of "C" or higher in prerequisite courses is required.

# **NATURAL SCIENCES**

**Faculty:** Donald Bourassa, Richard Brill, Robert Eddinger, Kakkala Gopalakrishnan, Phil Hubbard, Mark Schindler, John Shen, Dallas Shiroma, Ron Takata, Kerry Tanimoto.

The Natural Sciences Department offers courses in Astronomy, Biochemistry, Biology, Botany, Chemistry, Engineering, Geology and Geophysics, Meteorology, Microbiology, Oceanography, Physics, General Science and Zoology.

#### SOCIAL SCIENCES

Faculty: David Cleveland, Rob Edmondson, Lena Low, Thomas Ohta, Reginald Wood.

The Social Sciences Department offers courses in Anthropology, Economics, Geography, Political Science, Psychology, Social Science, and Sociology,

#### COLLEGE SKILLS CENTER

Faculty: Femar Lee, Lianne Nagano, Earl Nakahara, Cory Takemoto.

Specialists: Hanwell Kaakimaka, Shervl Legaspi, Varouny Sybounmy, Glen Tengan.

The College Skills Center offers Applied Communication, Applied Math, and Student Development courses and support services described in the Educational Facilities section.

# **Special Programs**

#### APPRENTICESHIP/JOURNEYWORKER TRAINING

**Phone:** 845-9245

Coordinators: Wilfred Arakaki.

The Apprenticeship Training program provides related classroom instruction for persons on Oahu who are apprenticing in the Construction and Mechanical trades. In addition, training is offered for upgrading journeyworkers who desire self-improvement in their respective trades.

The Apprenticeship program may be applied to an associate degree. See Applied Trades.

Courses are offered during the late afternoons, evenings, and Saturday mornings in the following areas:

Asbestos Worker Boilermaker Bricklaver Mason

Building Maintenance (Hotel Workers)

Carpentry

Cement Finishers Ceramic Tile

City and County Water Supply City and County Waste Water

Community Antenna Television System

Drvwall

Electrical Maintenance (City & County) Electrician

Floor Layer

Glaziers Ironworker (Structural) Ironworker (Fabrication) Operating Engineer Painting & Decorating

Plasterer Plumber

Refrigeration and Air Conditioning

Reinforcing Steel

Roofer **Sheet Metal** Taper

Note: All courses may not be offered every year. Offerings are scheduled in response to industry demand. New courses are added as needed.

#### **Advisory Committee**

By law, local joint apprenticeship committees (JATC) may be approved by the director of labor and industrial relations in any trade, group of trades, or in trade areas according to apprentice training needs. Committee composition is representative of the interests of employers and employees. Committees devise standards for apprenticeship agreements and give assistance to the operation and further development of apprenticeship. Current JATC membership lists are maintained in the State Department of Labor and Industrial Relations.

#### PEARL HARBOR APPRENTICESHIP TRAINING

Pearl Harbor Naval Shipyard (PHNSY) Apprenticeship may also be available as determined by employment needs. PHNSY apprenticeships include Honolulu Community College related instruction and may be applied to an associate degree. See Applied Trades.

#### CONTINUING EDUCATION AND TRAINING

Continuing Education and Training opportunities are available in a wide range of programs, courses and services to meet the needs of business and industry as well as the community and special groups.

Training for business and industry is customized to meet specific needs. The training is short, flexible, convenient and effective. Training courses can be delivered on-campus or on-site through a fee per student basis or through a contract between the College and the company or organization. Generally, these courses are designed to upgrade the skills and knowledge of individuals currently employed in the technical, occupational and professional fields related to the more than 25 programs offered at the College.

In addition, specific, short-term programs and services that are responsive to community and special groups may be developed.

#### **EMERITUS COLLEGE**

Phone: 842-1318, 842-9451

Honolulu Community College has established the Emeritus College to respond to the special educational needs and requirements of senior citizens and of persons near retirement. The Emeritus College offers a continuing series of non-credit workshops and serves as a center of support and assistance for senior students wishing to enroll in any of the College's programs, either credit or non-credit.

The Emeritus College is also the first SeniorNet site in Hawai'i. SeniorNet is a non-profit organization established to create and support a national community of computer-using seniors. SeniorNet offers computer literacy workshops designed specifically for older adults and operates an on-line telecommunications network that allows local site participants to communicate with others throughout the United States and Canada and to gain access to information of interest.

#### FUJIO MATSUDA TECHNOLOGY TRAINING & EDUCATION CENTER

Phone: 845-9296

Endowed by a significant gift to the UH Foundation, The Fujio Matsuda Technology Training and Education Center (Matsuda Technology Center) serves as the technological bridge connecting Honolulu Community College with appropriate businesses and industries in Hawai'i. The Center introduces emerging technologies and techniques to the community through faculty consultants, workshops, seminars and non-credit classes.

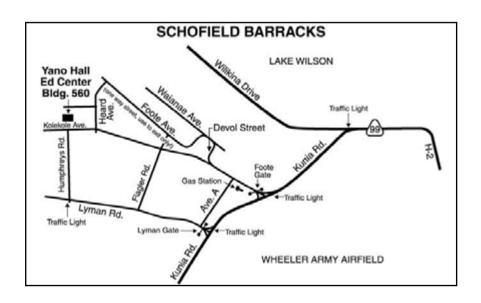
Through the Office of Continuing Education and Training, the Matsuda Technology Center regularly conducts short-term non-credit classes in word processing, database management, spreadsheet, computer assisted design and drafting, computer art, typesetting, and publishing using Macintosh and IBM-DOS Compatible computers.

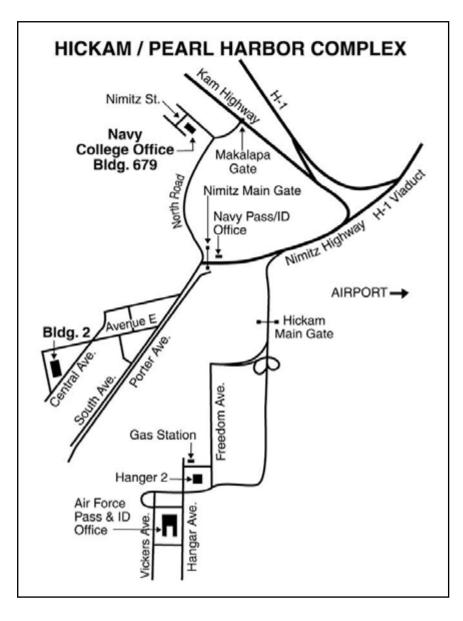
#### OFF CAMPUS EDUCATION

Coordinator: Michael McMillen (847-9839)

**Off-campus Contacts:** Schofield Barracks (624-9535), FAX: (808) 624-9541, email: <a href="mailto:florence@hcc.hawaii.edu">florence@hcc.hawaii.edu</a>; Hickam AFB and Pearl Harbor (421-4352), FAX: (808) 422-2827, email: <a href="mailto:sandyp@hcc.hawaii.edu">sandyp@hcc.hawaii.edu</a>.

Honolulu Community College is a member of the Servicemembers Opportunity College (SOC) which worldwide is linked into networks to offer associate degrees. The Army program (SOCAD) includes 105 colleges servicing 83 installations, the Navy program (SOCNAV) includes 84 colleges at 68 installations and the Marine program (SOCMAR) includes 53 colleges at 17 installations. Off-campus classes are open to military, their dependents as well as all Hawaii residents. The academic year includes four ten-week terms. All credits are in semester hours. For the convenience of military students, Honolulu Community College gives courses from other University of Hawaii Community College's as a part of their off-campus program. These classes have been borrowed from their respective colleges and are given as a part of the off-campus program.





#### MOTOR VEHICLE CERTIFICATION AND IN-SERVICE TRAINING PROGRAM

Contact: Bert Shimabukuro

Phone: 844-2325

Honolulu Community College administers the Motor Vehicle Certification Program for the State of Hawai'i. This program includes the coordination of the National Institute for Automotive Service Excellence (ASE) certification test, the administration of the State of Hawai'i Motorcycle certification examination, and the offering of non-credit ASE preparatory courses.

The College also offers a wide range of non-credit skill upgrading courses for the in-service automotive technician, the collision repair specialist and the diesel technician throughout the year.

#### **PACE**

See Human Services - Early Childhood Education Option

# OFFICE OF INTERNATIONAL PROGRAMS AND SERVICES

Contact: Beng Poh Yoshikawa

**Phone:** 845-9230

The Office of International Programs and Services establishes and implements systemwide policies and procedures to ensure the effective systemwide coordination of the university's international programs relating to immigration, study abroad, scholar services, protocol, exchanges, and cooperative agreements for systemwide implementation. The University of Hawai'i has exchanges and cooperative agreements at both the student and faculty levels with universities around the world and it has especially close ties with many universities in the Asia-Pacific region. The office, which is administratively housed under the Senior Vice President and Chancellor for Community Colleges, also administers the International Agreements Fund and serves as a clearinghouse for information on the University of Hawai'i's international involvement.

#### PACIFIC CENTER FOR ADVANCED TECHNOLOGY TRAINING (PCATT)

Director of PCATT: Donald Bourassa.

**PCATT Staff:** William Becker, Jerry Cerny, Monir Hodges, Wayne Lewis, Beryl Morimoto, Rose Sumajit.

The Pacific Center for Advanced Technology Training is a community college consortium offering training throughout the state of Hawai'i in advanced technologies. In the field of information technology and networking, offerings include several training programs that lead to certification by Cisco, Microsoft, Sun Microsystems, and Oracle. In the field of computer assisted design (CAD), the PCATT houses the sole AutoDesk certified training program in the state of Hawai'i. Other training programs include telecommunications, fiber optics, biotechnology, New Media Arts, and E-Commerce. Many of these training programs are offered at multiple sites throughout the state of Hawai'i. For certain programs, the PCATT can provide onsite training to clients located outside the state of Hawai'i. The administrative offices of the PCATT are located on the campus of Honolulu Community College. More information can be found on the PCATT website <a href="http://www.pcatt.org">http://www.pcatt.org</a>.

#### ACT CENTER

**ACT Coordinator:** Earl Nakahara

ACT, Inc., a provider of assessment, research, information, and program management services in education planning, career planning, and workforce development for over forty years, has designated Honolulu Community College as a host institution in the growing network of ACT Centers nationwide. The ACT Center, located on the third floor of Building 7, provides computerized certification tests and online courseware that covers:

Adult Literacy/Employability Skills
Computers and Information Technology
English as a Second Language (ESL)
Industrial Technology and Safety Skills
Management/Leadership and Small Business Operation
Professional and Personal Development

#### **NATIVE HAWAIIAN PROGRAMS**

www.hcc.hawaii.edu/hawaiian

#### Hulili Ke Kukui

(The Blazing Light of Knowledge)

Coordinator: Janice Petersen

**Phone:** 845-9110

Hulili Ke Kukui acts as the umbrella title encompassing all Native Hawaiian programs and program initiatives at Honolulu Community College.

# Na Papa Hawai'i

(Hawaiian Studies)

Staff: Kakkala Gopalakrishnan, Kimo Keaulana,

Phone: 847-9824, 845-9121

Na Papa Hawai'i includes Hawaiian language and Hawaiian culture courses, and marine science education.

#### Kupu Ka Wai

(The Waters That Provide Growth)

Staff: Leon Florendo, Malia Gibson, Tom Linker, Jonathan Wong

**Phone:** 844-2322

Kupu Ka Wai is the name given to the US DOE Title III Program comprised of three distinct service elements: Native Hawaiian Center, College Readiness and Transition to Work or 4-year Institutions. Kupu Ka Wai works with all Native Hawaiians at Honolulu Community College. Among the services Kupu Ka Wai provides for Native Hawaiian students are career and academic advising, cultural enrichment programs, and academic support services like tutoring. Kupu Ka Wai provides Native Hawaiian students majoring in Liberal Arts and Technology II Program (Communication and Services) with academic and career advising, peer support, special lectures and workshops, referral services, cooperative education opportunities, and student stipends.

# Po'ina Nalu

(Where The Wave Breaks)

Staff: Erin Wright, Kara Vaughn

**Phone:** 845-9176

Po'ina Nalu is a Native Hawaiian Vocational Education Program (NHVEP) which emphasizes the development of Learning Communities, Cultural Activities, Curriculum and Instruction, and Cooperative Education. Po'ina Nalu provides Native Hawaiian students majoring in Technology 1 Program (Transportation and Trades) with academic and career advising, peer support, special lectures and workshops, referral services, cooperative education opportunities, and student stipends.



Native Hawaiian Programs staff

# **Special Courses**

#### COOPERATIVE EDUCATION

Faculty: Laure Burke, Kenneth Johnson, Jeanne Shaw.

Cooperative Education is offered in both vocational-technical and liberal arts areas. Written instructor approval is required for registration.

Cooperative Education is controlled by Honolulu Community College and not by the officials of the field site. There is regular interaction between the Cooperative Education Coordinator and the student. Appropriate assignments, as determined by the Cooperative Education Coordinator, are required for completion of the course. The standard College grading system is utilized. Five hours per week or seventy-five hours of work per semester are required for each credit.

Cooperative Vocational/Technical Education will provide the student with the opportunity to acquire on-the-job experience in conjunction with classroom and laboratory instruction. The relevance of classroom instruction to the real world of work is emphasized. The cooperative employer pays a fair wage for each hour of work performed in the Cooperative Education Program.

Courses available in Cooperative Vocational Education are ABRP 93V, AEC 193V, AERO 93V, AJ 193V, AMT 93V, CA 193V, CARP 93V, CENT 293V, COSM 93V, DISL 93V, ELEC 93V, FIRE 193V, FT 93V, 193V, MARR 93V, OESM 193V, RAC 93V, SMP 93V, and WELD 93V. (Students can enroll 4 times for credit up to a maximum of 12 credits.)

Students accepted in a Federal Cooperative Education program may receive up to 12 credits in WORK 94V. During the Work Cycle, students are assigned work experiences related to academic studies or career goals. Repeatable for credit with instructor approval.

Cooperative Arts and Sciences Education will provide practical work experience in specific liberal arts areas to investigate various types of jobs. Students are placed in employment situations in the private and public sectors of the business-industrial community. Emphasis is on job experience, but equal importance is attached to the development of social and personal habits, attitudes, and skills which are essential for job entry and advancement.



Cooperative Vocational/Technical Education Staff

144 SPECIAL COURSES

Courses available in Cooperative Arts and Sciences Education are HUM 193V, SCI 193V, and SSCI 193V. (1–4 credits per term. Students may enroll 4 times for credit up to a maximum of 12 credits.) These courses do not fulfill general education requirements for the AS degree nor do they fulfill A.A. core requirements.

See the Cooperative Education coordinator for information about Cooperative Education courses (845-9169).

#### DISTANCE EDUCATION

Contact: Sherrie Rupert Phone: 845-9151

Courses for college credit may be taken from the convenience of home through telecourses and online courses. Telecourses are broadcast on cable television. Classes are broadcast and tapes are also available for viewing at the campus library. For information about online courses, see (http://www.hcc.hawaii.edu). A listing of distance education classes is in the schedule of classes.

#### **EXPERIMENTAL COURSES**

Experimental courses are designated by the numbers 97, 98, 197, 198, 297, or 298. An experimental course can be offered for up to two years and shall automatically expire after the two years unless a request to extend the course has been approved. An experimental course may or may not be transferable.

#### INTENSIVE ENGLISH AS A SECOND LANGUAGE (IEP)

Prerequisite: Completion of ICE 6 or TOEFL score of 400-499 (paper-based) or 173+ (computer-based).

This non-credit intensive course is designed to help both international students and resident immigrants improve their language skills for college and/or work. Content-based instruction in reading/vocabulary, writing/grammar, and listening/speaking is provided six hours daily for 16 weeks. Computer/listening lab is also required.

# INTRODUCTION TO COLLEGE ENGLISH (ICE)

These non-credit courses at six different levels are designed to help resident immigrants improve their language skills for college and/or work. Instruction in reading/vocabulary, writing/grammar, and listening/speaking is provided nine hours weekly for 7 weeks.

#### **NON-CREDIT COURSES**

An array of non-credit special interest courses are available. Fees vary, depending on the length of the course. Details are published in special announcements and brochures.

#### SERVICE LEARNING COURSES

Some courses offer a service learning option.

Service learning combines service to the community with student learning in a way that improves both the student and the community.

# Service Learning:

 is a method whereby students learn and develop through active participation in thoughtfully organized service that is conducted in and meets the needs of communities;



SPECIAL COURSES 145

 is coordinated with an elementary school, secondary school, institution of higher education, or community service program and the community;

- helps foster civic responsibility;
- is integrated into and enhances the academic curriculum of the students, or the education components of the community service program in which the participants are enrolled;
- and provides structured time for students or participants to reflect on the service experience.

# SPECIAL STUDIES

# 99V/199V/299V Special Studies (1-4)

An opportunity for students with special interest and abilities in subject areas to meet with faculty members to discuss and investigate topics of particular interest. Problems and unit credit are worked out with and at the discretion of the instructor. (Special Studies sections will be organized as needed in each department and identified by the discipline departmental name. e.g., POLS 199V and ENGT 99V.)

#### WRITING INTENSIVE COURSES

In keeping with the effort to improve writing skills, Honolulu Community College requires entering students (as of Fall 1988) to complete two Writing Intensive courses for the Associate in Arts degree. Only one English course, with the exception of English 209, may be used to fulfill the requirement.

English 100 must be completed prior to taking a writing-intensive course. A grade of "C" or higher must be earned in a writing-intensive course for it to satisfy part of the Writing Intensive requirement.

Writing Intensive classes are identified in the schedule of classes by "W-" in front of the title.



Distance Education: Speech 151 class with Instructor Grace Ihara and guest Irene Mesina, Head Librarian at HCC







Pacific Aerospace Training Center Open House Fire Rescue Demonstration.



# **Course Descriptions**

All courses offered at Honolulu Community College are listed alphabetically in this section according to the discipline. Hours specified are weekly unless otherwise stated. Credits are in parentheses following the title. (Exceptions: see Special Programs, Special Courses.)

Except for special studies, writing intensive courses, and experimental courses, all active credit courses are listed in this section. (Exceptions are listed in the Special Courses section.)

Some courses require that the student meets certain conditions in order to be eligible to enroll. Explanations of the most common such requirements follow. Additional requirements are listed as comments in the catalog or in the schedule of classes.

In exceptional cases, you may be able to take a course even though your computerized record does not show that you meet a required condition. See the instructor if you have questions about any course or about your qualifications to meet the prerequisites, corequisites, or other requirements or special reasons for exceeding limits

**Prerequisite.** Course you must complete or other background you must have before you enroll. Equivalent courses may meet the requirement. (See transfer and placement information.) REQUIRED for registration. If the prerequisite is in ESL, ENG, MATH, or QM, see "English and Math Placement Requirement" for how to demonstrate placement. Courses with higher numbers than the stated prerequisite are usually acceptable unless otherwise stated in the catalog.

**Prerequisite or corequisite:** Course you must take EITHER before the course or during the same term. REQUIRED for registration.

Corequisite. Course you must take during the same term. REQUIRED for registration.

**Recommended preparation.** Course or other background needed for success in the course.

**Majors only.** You must have the major indicated. REQUIRED for registration. Some courses require that the student be an "eligible" major.

**Instructor approval required.** You need a signed instructor approval card to register for this course. REQUIRED for registration.

**Repeatable.** You may repeat this course. The additional credits will appear on the transcript up to the limit listed in the course description. You will NOT be permitted to exceed the limit at registration. Also see "Repeating a Course."

**Hours.** Course hours are expressed according to the time frame in which the course is most commonly offered (For example, hours per week, hours per term or total hours in an 8-week period). The same course may be offered in several different formats, however. ENG 100 is offered 3 hours per week for a term. During summer session, the 48 hours will be condensed into 6 weeks; on military bases, 10 weeks.

Some courses are available as telecourses (televised), writing intensive, or modular courses (Modules are short parts of the main course and usually designated by a B, C, D, etc. following the course number.) See the schedule of classes.

**Cross-listing.** Some courses are cross-listed in the class schedule. Unless otherwise specified, cross-listed courses count as repeats of one another.

# ACCOUNTING (ACC)

# 201 Elementary Accounting I (3)

Prerequisite or Corequisite: ENG 100 Recommended preparation: ENG 102

This course introduces the student to accounting theory and the methods used to record and report financial information. It analyzes methods for valuing the assets, liabilities and ownership of an organization. (3 hrs. lect. per week)

### 202 Elementary Accounting II (3)

Prerequisite: ACC 201

This course introduces the student to managerial methods for evaluating financial performance including cost accounting, budgeting break-even analysis, ratio analysis, and sources and uses of funds. (3 hrs. lect. per week)

# ADMINISTRATION OF JUSTICE (AJ)

#### 101 Introduction to Administration of Justice (3)

Prerequisite: "C" or higher in ENG 22 or in 60 OR placement in ENG 100

This is a comprehensive course on crime and its causes including the history and philosophy of the administration of justice in America, the development of criminal justice, identification of the various subsystems, role expectations and their interrelationships. Theories of crime, punishment, adjudication and rehabilitation and training for professionalism in the entire system are also explored. (3 hrs. lect. per week)

#### 103 Criminal Investigation (3)

Prerequisite or Corequisite: AJ 101

This course covers the basic principles of criminal investigation including; the human aspects of dealing with the public, case preparation, the collection and preservation of physical evidence, crime scene search, fingerprints, casts, photographs and laboratory assistance. (3 hrs. lect. per week)

#### 104 Criminalistics (3)

Prerequisite or Corequisite: AJ 101

This course will introduce the student to forensic science (Legal Scientific Investigation), with its contributions to both Crime Scene Investigation and Laboratory Analysis. Specific field and laboratory techniques will also be explored. (3 hrs. lect. per week)

# 137 Patrol Procedures (3)

Prerequisite or Corequisite: AJ 101

This course will cover the duties and responsibilities of the patrol divisions of law enforcement agencies. The organization, operation and effectiveness of patrol will be examined and evaluated. The student will become familiar with the various methods departments use to accomplish the patrol mission such as team policing, beat plans and unique solutions like bicycles, all terrain vehicles and aircraft. (3 hrs. lect. per week)

### 138 Criminal Justice System Reports and Communications (3)

Prerequisite or Corequisite: AJ 101

This course will introduce the student to the methods of producing accurate, concise and detailed reports, the processing and the study of communications common to the administration of justice practitioner. This course will involve critical thinking and evaluative writing. (3 hrs. lect. per week)

# 139 Computer Application in Criminal Justice (3)

Prerequisite or Corequisite: AJ 101

The student will become familiar with the modern technological advances and applications of the computer relative to investigation, recordkeeping, crime analysis, trends and patterns. The importance and significance of statistics is stressed and computer aided dispatch is examined. (3 hrs. lect. per week)

# 150 The Correctional Process (3)

Prerequisite or Corequisite: AJ 101

Provides an overview of the historical development of Corrections and the philosophy of punishment. Current correctional institutions such as prisons, detention facilities, and community-based programs and their management and effectiveness will be examined. (3 hrs. lect. per week)

# 170 Introduction to Private Security (3)

Prerequisite or Corequisite: AJ 101

This course is an overview of the private security industry. Topics such as; retail, hotel, hospital, industrial and many other types of security are covered. Also examined are security methods such as electronic surveillance, perimeters and patrol. (3 hrs. lect. per week)

# 173 Hotel Security (3)

Prerequisite or Corequisite: AJ 101

This course is an overview of the hotel security industry. The student is presented with the responsibilities and methods of providing security to guests, staff and premises in a hotel setting. Also covered are the role of security personnel in handling day to day problems and special events occurring in a hotel environment. (3 hrs. lect. per week)

#### 175 Hospital Security (3)

Prerequisite or Corequisite: AJ 101

This course is an overview of the hospital security industry. Topics such as; patient, visitor and staff protection are examined along with drug control, fire protection and concerns unique to security in a hospital setting. (3 hrs. lect. per week)

# 193V Cooperative Education (1-4)

Instructor approval required. AJ majors only. This course will provide the student with the opportunity to acquire on-the-job experience which is related to classroom instruction in Administration of Justice. Students may enroll 4 times for credit up to a maximum of 12 credits. Four (4) credits can be applied to AJ elective requirements. (5 hours work experience per week per credit)

# 200 Procedures in the Hawai'i Justice System (3)

Prerequisite or Corequisite: AJ 101

Using the State of Hawai'i's justice system as an example, the judicial procedures are examined from arrest through the court process and final disposition. (3 hrs. lect. per week)

# 208 Introduction to Criminology (3)

Prerequisite or Corequisite: AJ 101

The course will explore theories of crime causation, its measurement and impact, and overall societal reaction to crime and offenders. The focus is the exploration of possible programs and policies to achieve a combination of crime reduction and social justice. May be taken on a CR/N basis. (3 hrs. lect. per week)

# 210 Juvenile Justice (3)

Prerequisite or Corequisite: AJ 101

This course provides the administration of justice student with a basic and practical understanding of the legal principles involved in juvenile delinquency problems. Analysis of legislative and judicial responses to juvenile behavioral problems provide realistic and meaningful insights into the functioning of the juvenile justice processes. (3 hrs. lect. per week)

# 220 Constitutional Law (3)

Prerequisite or Corequisite: AJ 101

The US constitution is examined as a basis of arrest, search, seizure and disposition. Cases are examined to illustrate the court's interpretive process. (3 hrs. lect. per week)

# 221 Introduction to Criminal Law (3)

Prerequisite or Corequisite: AJ 101

The history and philosophy of criminal law are examined along with definitions and classifications of crimes. This course also covers the basics of legal research and the application of the concept of law as a social force. (3 hrs. lect. per week)

#### 224 Rules of Evidence (3)

Prerequisite or Corequisite: AJ 101

This course is a thorough study of the evidence rules with specific emphasis on the application of these rules in preparing and presenting evidence. This includes a discussion of the history and approach to the study of evidence, proof by evidence and substitutes. General admissibility tests, evidence by witness testimony, documents and real evidence are examined. Rules of evidence are cited by decisions and students are required to brief cases. (3 hrs. lect. per week)

#### 230 Principles of Police Supervision (3)

Prerequisite or Corequisite: AJ 101

This course will cover such essentials as the function of the supervisor in organization and management, elements of leadership, the training function, instructional process, personnel evaluation systems, and personnel complaint investigation and techniques. (3 hrs. lect. per week)

#### 233 Police Organization and Management (3)

Prerequisite or Corequisite: AJ 101

The principles of organization and administration in the law enforcement community are examined along with such topics as organizational structures, managerial philosophies, personnel issues and leadership. (3 hrs. lect. per week)

# 234 Community Policing (3)

Prerequisite or Corequisite: AJ 101

This course acquaints the student with the role of law enforcement in government and the critical importance of effective community relations. The dynamics of race relations and other current social problems directly related to the law enforcement community are explored. This course focuses on attitudes of the public and the law enforcement officer, why these attitudes exist and what can be done to improve the situation. (3 hrs. lect. per week)

# 235 Ethics in the Criminal Justice System (3)

Prerequisite or Corequisite: AJ 101

An identification and analysis of the diverse ethical issues encountered in the Criminal Justice System. Traditional ethical theories will be examined and applied to such topics as discretion, plea bargaining, bail, wiretapping, privacy, punishment, and prisoners' rights. (3 hrs. lect. per week)

# 280 Current Issues in the Administration of Justice (3)

Prerequisite or Corequisite: AJ 101

This course is an exploration of issues related to the study of the administration of justice. Students will define, select, research, and examine these issues, then discuss the various viewpoints thereby conducting a thorough probe of important and controversial issues facing the justice professions. (3 hrs. lect. per week)

# 283 Substance Abuse in Society (3)

Prerequisite or Corequisite: AJ 101

This course covers the historical development of drug enforcement in relation to changing social mores. Emphasis is placed on the detection and identification of illegal drugs and their suppression through enforcement and investigation. Tactics of enforcement will be presented along with a study of pertinent statutory and case law. The effects of rehabilitation and treatment will be explored. May be taken on a CR/N basis. (3 hrs. lect. per week)

# 284 Sex Related Crimes and Offenders (3)

Prerequisite or Corequisite: AJ 101

The dynamics of sexual deviation, developmental theories of sexual abnormalities, and the Criminal Justice System and societal issues associated with these offenses will be studied. The course also examines the role and interaction of police, victim, and offender along with addressing profiling, and rehabilitation. May be taken on a credit/non-credit basis (3 hrs. lect. per week)

# **AERONAUTICS (AERO)**

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

Instructor approval required. AERO majors only. This course will provide the student with the opportunity to acquire on-the-job experience related to classroom and laboratory instruction in Aeronautics Maintenance. Students may enroll 4 times for credit up to a maximum of 12 credits. (5 hrs. of work experience per week per credit)

### 100 Introduction to Aeronautics (3)

As an introduction course, it should be open to declared majors just starting the program without restriction. This course is an introduction to the world of aviation. It includes aviation history, technologies, applied sciences and the air transportation system. The course is intended for Aeronautics majors planning to complete the Certificate, Associate of Science/Airway Science Degree, or transfer program options. Repeatable once but not for credit. (3 hrs. lect. per week)

### 130 General Aircraft Maintenance I (7)

Prerequisite: ENG 20B & C & D & E or ESL 11 & 13 & 17 OR placement in ENG 22/60 AND MATH 50 OR Placement in MATH 27/103

AERO majors only. Blueprint reading, mechanical drawing, aircraft weight and balance procedures, non-destructive testing, basic heat treating, use of technical manuals and other maintenance functions as specified by Federal Aviation Regulation Part 147. (250 hrs. lect./lab. over 8 weeks)

### 131 Advanced General Aircraft Maintenance II (7)

Prerequisite: "C" in AERO 130

AERO majors only. Fundamentals of direct and alternating current electricity, fundamentals of applied mathematics, fundamentals of applied physics; calculate and measure electrical power volts, amps, resistance, start, ground operate and move aircraft, overhaul piston and turbine engine ignition systems in accordance with Federal Aviation Regulation Part 147. (250 hrs. lect./lab. over 8 weeks)

# 132 Powerplant Maintenance I (7)

Prerequisites: "C" in AERO 130 and in 131

AERO majors only. Fundamentals of piston engine construction and operation, basic powerplant indicating systems; inspect and repair opposed and radial piston engines, perform powerplant inspections, inspect engine indicating systems as specified by Federal Aviation Regulation Part 147. (250 hrs. lect./lab. over 8 weeks)

# 133 Airframe Maintenance I (7)

Prerequisites: "C" in AERO 130 and in 131

AERO majors only. Principles of aircraft sheetmetal structures, identification of aircraft fasteners, aircraft sheetmetal layout and fabrication; install special rivets and fasteners, inspect and repair sheetmetal structures, fabricate tubular structures and other aircraft structural maintenance functions as specified by Federal Aviation Regulation Part 147. (250 hrs. lect./lab. over 8 weeks)

#### 134 Powerplant Maintenance II (7)

Prerequisites: "C" in AERO 130 and in 131 and in 132

AERO majors only. Fundamentals of turbine engine construction and operation, piston and turbine engine fuel metering systems; inspect and service turbine engines, repair engine fuel metering components as specified in Federal Aviation Regulation Part 147. (250 hrs. lect./lab. over 8 weeks)

#### 135 Airframe Maintenance II (7)

Prerequisites: "C" in AERO 130 and in 131 and in 133

AERO majors only. Principles of construction of aircraft wooden structures, repair of aircraft synthetic material, principles of rigging fixed and rotary winged aircraft; application of aircraft covering material, aircraft painting, rig rotary and fixed winged aircraft as specified by Federal Aviation Regulation Part 147. (250 hrs. lect./lab. over 8 weeks)

# 136 Powerplant Maintenance III (7)

Prerequisites: "C" in AERO 130 and in 131 and in 132 and in 134

AERO majors only. Theory and operation of engine fire detection and control systems, theory of operation and construction of aircraft propellers and related components; inspect and repair engine exhaust and cooling systems, repair and balance propellers as specified in Federal Aviation Regulation Part 147. (250 hrs. lect./lab. over 8 weeks)

### 137 Airframe Maintenance III (7)

Prerequisites: "C" in AERO in 130 and in 131 and in 133 and in 135

AERO majors only. Theory of operation of aircraft hydraulic, pneumatic, oxygen and auto-pilot systems; inspect and repair aircraft hydraulic, fuel, pneumatic and instrument systems and other aircraft components as specified by Federal Aviation Regulation Part 147. (250 hrs. lect./lab. over 8 weeks)

### **AEROSPACE STUDIES (AS)**

Office: 1460 Lower Campus Drive, UH Manoa, Tel: 956-7734

Faculty: W. Coode (UH Manoa)

Aerospace Studies (AS) is part of the Air Force Reserve Officers Training Corps (AFROTC) program. Men and women who successfully complete all requirements are commissioned as second lieutenants in the US Air Force. They then serve on active duty or may in some cases obtain educational delay for graduate studies. Academic courses are open to any student without obligation to the Air Force. Four-year, three-year and two-year program options are available.

Interested students may obtain information from the director at 1460 Lower Campus Drive, Honolulu 96822, phone number 956-7734/7762 or visit our website at <a href="https://www.afrotc.com">www.afrotc.com</a>. Leadership laboratory required for 101–102, 201–202. Conducted within framework of organized cadet corps with progression of experiences designed to develop leadership potential. Involves Air Force customs and courtesies, drill, career progression.

#### 101–102 Foundations of U.S. Air Force (1–1)

Comment: A weekly leadership lab of Air Force customs and courtesies, Air Force Environment and drill ceremonies is required. Tuition is waived, classes held at UH Manoa AF-2. For more information, call AFROTC at 956-7734/7762.

Air Force in the contemporary world; total force structure; strategic offensive/defensive forces; general purpose forces. (1 hr. lect.; 1.5 hr. lab. per week)

# 201–202 Evolution of USAF Air and Space Power (2–2)

Prerequisite: "C" or higher in ENG 100

Comment: A weekly leadership lab of Air Force customs and courtesies, Air Force Environment and drill ceremonies is required. Tuition is waived, classes held at UH Manoa AF-2. For more information, call AFROTC at 956-7734/7762.

Study of Air Force heritage, ethics, and an introduction to leadership and group leadership problems. Application of written and verbal communication skills is included. (1 hr. lect.; 2 hr. lab. per week)

# AMERICAN STUDIES (AMST)

# 201 The American Experience (3)

Prerequisite: ENG 22 or 60 OR placement in ENG 100

Dominant American values and institutions; influence of political, social and environmental factors; ideas of individualism, success and national character. (3 hrs. lect. per week)

# 202 Diversity in American Life (3)

Prerequisite: ENG 22 or 60 OR placement in ENG 100

Variety and diversity in American life; creation of a multicultural, multiracial society; distinctive outlooks shaped by ethnicity, gender, race, age and other factors. (3 hrs. lect. per week)

# 211 Contemporary American Issues: Domestic (3)

Prerequisite: ENG 100 or placement in ENG 209-260

Exploration of current issues such as discrimination, jobs, family life, criminal justice, economic trends, health care, environmental protection and national security. (3 hrs. lect. per week)

# 212 Contemporary American Issues: World (3)

Prerequisite: ENG 100 or placement in ENG 209-260

Exploration of current issues such as Soviet-American tensions, foreign trade, conventional and nuclear weaponry, global environmental issues and Third World relations. (3 hrs. lect. per week)

# ANTHROPOLOGY (ANTH)

### 20 Survey of Anthropology (3)

Prerequisite: Placement in ENG 22/60

This course examines the development of the human species, human variation, adaptation to the environment, and the interaction of human biology and culture. Case studies deal with the people of developing countries. Designed for non-transfer students. (3 hrs. lect. per week)

#### 150 Human Adaptations (3)

Prerequisite: ENG 22 or 60 OR placement in ENG 100

Human variation, physical and cultural, examined for its possible survival value under particular conditions from prehistoric times to present. How various ways of life and physical characteristics are adaptive or maladaptive. Implications for the future. (3 hrs. lect. per week)

# 200 Cultural Anthropology (3)

Prerequisite: ENG 22 or 60 OR placement in ENG 100

This course is concerned with the nature of culture; an introduction to basic concepts of analyzing cultural behavior; patterning, integration, and dynamics of culture; culture and the individual and cultural change. (3 hrs. lect. per week)

# 210 Archaeology (3)

Prerequisite: ENG 22 or 60 OR placement in ENG 100

An introduction to the methods and problems of archaeology. The course covers methods of excavation and examines famous prehistoric sites and the contributions they have made to an understanding of the origins and development of civilization. (3 hrs. lect. per week)

#### 215 Physical Anthropology (3)

Prerequisite: ENG 22 or 60 OR placement in ENG 100

An introduction to human evolution, heredity, primatology, early human populations, human growth and development, differences in modern people, and the development and differentiation of culture. (3 hrs. lect. per week)

### ARCHITECTURAL, ENGINEERING AND CAD TECHNOLOGIES (AEC)

### 80 Basic Drafting (3)

A very first course in drafting. Manual drafting procedures and practices, plus a 5-week glimpse at computer drafting. Designed primarily for students planning to enroll in regular-program Architectural, Engineering and CAD Technologies courses upon completion of this course. Also serves students preparing to be public school industrial arts teachers and those interested in a general "feel" for the subject of technical drawing. (2 hrs. lect., 3 hrs. lab. per week)

# 110 Basic AutoCAD (4)

Prerequisite: AEC 80 or DRAF 19, or instructor approval

AEC major only. The foundation AutoCAD course in the Architectural, Engineering and CAD Technologies program. Basic commands and operations from 2D drawing and editing tools to creating solid models and rendering. 2D drawing, text, dimensions, blocks, hatching, reference files, sharing data, 3D drawing, plotting, and more. Designed to qualify students for Autodesk certification. This course also available non-credit in four modules. (2 hrs. lect.; 3 hrs. lab. per week)

### 114 Architectural Graphics (3)

Prerequisite: AEC 80 or DRAF 19, or instructor approval

AEC major only. Types of architectural solid and spatial representation. Three components: (1) Orthographic and axomometric drawing, descriptive geometry, and shadow casting in AutoCAD. (2) Axonometric drawing, perspectives, and shadow casting in ArchiCAD and overlay drawings with entourage. (3) Freehand drawing mostly off campus. This course also available non-credit in three modules as enumerated. (1 hr. lect.; 6 hrs. lab.)

### 118 Construction Materials (3)

A broad survey of materials and products used in the building industry, their nature, characteristics, variety and uses. Concrete, masonry, wood, metals, conveying systems, electrical and mechanical systems, and other topics based on the CSI format. Emphasis on materials and construction in Hawaii. An interactive Internet course—not a CAD or project-based course. This course also available non-credit in three modules. (2 hrs. lect.; 3 hrs. lab. per week)

# 120 Introduction to Construction Drawings (3)

Prerequisite: AEC 110 or DRAF 61

Recommended Prep: AEC 118 or DRAF 26

AEC major only. A core AEC course in basic building construction and common construction drawings. Foundations, framing, doors and windows, cornices, roofs—architectural dimensions, materials symbols, drawing conventions, construction conceptualization, and more. An AutoCAD course that applies procedures from AEC 110 and materials information from AEC 118. This course also available non-credit in three modules. (2 hrs. lect.; 3 hrs. lab. per week)

# 123 Residential Planning and Design (3)

Prerequisite: AEC 114 or ARCH 121

AEC major only. A design fundamentals, development, and presentation course that precedes the project-based working drawings courses (AEC 130

and 140). Application of AEC 114 techniques to preliminary board designs of increasing complexity. Architectural design concepts and principles, application of AutoCAD and ArchiCAD, study models, rendering, group and juried presentations. (2 hrs. lect.; 3 hrs. lab. per week)

# 124 Advanced ArchiCAD (3)

Prerequisites: AEC 110 or DRAF 61, 114 or ARCH 121

AEC major only. This course provides students with the opportunity to work on a medium size modeling/drafting project entirely on the computer. Emphasis is on the three-dimensional drawing tools of the ArchiCAD software. Architectural models, rendering, and animation are important elements of the course. Students create photo realistic computer images of buildings, components, and the project site. (2 hrs. lect.; 3 hrs. lab. per week)

# 127 Civil Engineering Drawing (3)

Prerequisites: AEC 110 or DRAF 61, AEC 114 or ARCH 121, MATH 53 or Placement in MATH 55/58/135

AEC major only. Introduction to civil engineering drawing with AutoCAD. Maps, surveys, drawing scales and conventions, contours and profiles, site plans and plot plans, site utilities, topographic models, excavation, retaining walls, highway layout, subdivision and block plans. This course also available non-credit. (1 hr. lect.; 6 hrs. lab. per week)

# 130 Residential Working Drawings (3)

Prerequisite: AEC 120 or DRAF 20

Corequisite: AEC 131 or instructor approval

AEC major only. A core course in the advanced study and application of materials and methods of construction specifically related to two-story dwellings. Projects utilize light wood, steel, and/or masonry construction principles and practices. Basic residential planning, drafting expressions, architectural details, and complete working drawings. All drawing is done using computer-aided design (CAD) software. (1 hr. lect.; 9 hrs. lab per week)

# 131 Construction Codes (2)

Prerequisites: AEC 120 or DRAF 20, ENG 100

Corequisite: AEC 130

AEC major only. This course explores the ramifications of codes on building projects. Students apply the material of the course relating to zoning, building, and accessibility requirements to drawing projects in the co-requisite course, AEC 130. This is a lecture-discussion-exercise course. (2 hrs. lect.; 3 hrs. lab. per week)

#### 135 Introduction to the Built Environment (3)

Prerequisite: ENG 22 or 60 OR placement in ENG 100

A wide-ranging course that covers the philosophical development of society's physical fabric as revealed by the range of representative physical designs. Form and function, symbolism, behavioral influences, theories of aesthetics, design and progress, and design and economics, commerce, war, and religion are some of the subjects of this course. Fall semester only. (3 hrs. lect. per week)

# 136 Structural Drawing

Prerequisites: AEC 120 or DRAF 20, MATH 53 or Placement in Math 55/58/

135

Recommended Prep: AEC 118 or DRAF 26

AEC major only. Introduction to structural drawing for building construction—to load analysis, concrete and steel plan and detail drawing, and wood frame design and drawing with AutoCAD. Emphases on roof framing, lintels and beams, and posts and columns. The goal is develop in students a "sense" and basic understanding of structure in building construction. This course also available non-credit in three modules. (3 hrs. lect. per week)

### 138 Construction Estimating and Bidding (3)

Prerequisites: AEC 118 or DRAF 26, AEC 120 or DRAF 20, ENG 100

AEC major only. This course introduces students to construction contracts, types of estimates, construction costs, cost accounting, purposes and functions. Students also gain experience in generating material quantity takeoffs from construction drawings. Estimating construction costs is also covered. A computer spreadsheet program is used in the course. This course also available non-credit. (2 hrs. lect.; 3 hrs. lab. per week)

# 139 Field Shadow Experience (1)

Prerequisite: AEC 120 or DRAF 20

AEC major only. Students individually shadow an architect, engineer, or other industry professional for two hours per week (7 times) at times arranged. Three group meetings with all instructors for orientation and to share experiences. Placement tailored to student needs and interests. Students may enroll 2 times for credit. (2 hrs. field experience per week)

#### 140 Commercial Working Drawings (3)

Prerequisite: AEC 130 or DRAF 36 or 38

Corequisite: AEC 141

AEC major only. A core course that includes the theory and practice involved in producing and organizing working drawings using computer-aided design techniques for multi-family and commercial projects. Students are exposed to design, layout, and construction methods used in steel, concrete, masonry, and wood systems. Independent research emphasized. All drawing is done using computer-aided (CAD) software. (1 hr. lect.; 6 hrs. lab. per week)

# 141 Building Services (3)

Corequisite: AEC 140

Recommended Prep: AEC 118 or DRAF 26

AEC major only. Preliminary and detail planning of service and mechanical equipment and facilities in multi-family, commercial, industrial, and municipal buildings. Topics include energy, thermal control, acoustics, large capacity plumbing and electrical systems, fire protection equipment, vertical transportation equipment, security systems, and service accesses. (2 hrs. lect.; 3 hrs. lab. per week)

### 146 3D Studio VIZ (3)

Prerequisites: AEC 110 or DRAF 61, AEC 124 or DRAF 63

AEC major only. An introduction to AutoCAD 3D Studio VIZ, a high-end 3D modeling and rendering program primarily aimed at building design. Topics of the course include the user interface, basic modeling concepts, scene creation, object creation, material rendering, and lighting. Students construct several 3D computer models. This course also available non-credit. (7 hrs. lect.; 1 hr. lab per week)

# 149V Preparation for Employment in the AEC Field (1-2)

Prerequisite or Corequisite: AEC 130 or DRAF 36 or 38, or instructor approval

Recommended Prep: Upper level standing if non-AEC major

A team-taught course in preparation for employment in the architectural, engineering, and construction industry. Half of the course is devoted to the AEC job market, job search strategies, resume writing, interviewing, and succeeding on the job. Other half of the course is devoted to designing and creating a professional portfolio. (1-2 hrs. lect.; 2 hrs. lab. per week)

# 193V Cooperative Education (1-4)

Instructor approval required. AEC or DRAF majors only. This course provides the student with the opportunity to acquire on-the-job experience related to classroom and laboratory instruction in Architectural, Engineering and CAD Technologies. Students may enroll 4 times for credit up to a maximum of 12 credits. (5 hrs. work experience per week per credit)

# ART (ART)

# 30 The Visual Arts (3)

An introduction to the visual ideas and materials of art for non-majors. (3 hrs. lect. per week)

# 100 Arts and Crafts (3)

Recommended Preparation: Placement in ENG 22/60

A basic course designed to provide the opportunity to explore several of the various arts and crafts. Visiting artists will participate on selected projects. (2 hrs. lect.; 4 hrs. lab. per week)

### 101 Introduction to the Visual Arts (3)

Prerequisite: ENG 22 or 60 OR Placement in ENG 100

Nature of visual art and its expression in various forms. Lectures, demonstrations. (3 hrs. lect. per week)

# 104 Introduction to Printmaking (3)

Recommended Placement: Placement in ENG 22/60

An introduction to the materials and techniques of major printmaking processes in historical and contemporary application. (2 hrs. lect.; 4 hrs. lab. per week)

# 112 Introduction to Computer Art (3)

Prerequisite: ICS 100M

Recommended Preparation: ENG 22 or 60 and MATH 22 or 50

Introduction to the technology, vocabulary, and procedures of computer produced images; the use of computer graphics as an artist's tool. (2 hrs. lect.; 4 hrs. lab. per week)

# 113 Introduction to Drawing (3)

Prerequisite: ENG 22 or 60 OR placement in ENG 100

Two-dimensional visualization and rendering of forms, spaces, and ideas through a variety of approaches and media. (2 hrs. lect.; 4 hrs. lab. per week)

# 115 Introduction to Design-2D (3)

Recommended Preparation: ENG 22 or 60 and MATH 22 or 50 or higher.

Basic design concepts, elements and principles of organization. Emphasizes problem-solving and technical skills with introduction to computer. May be graded on a CR/N basis. (2 hrs. lect.: 4 hrs. lab. per week)

# 123 Introduction to Painting (3)

Recommended Preparation: ENG 22 or 60 OR placement in ENG 100

Theory and practice of painting; basic material and technical procedures will be addressed. (2 hrs. lect.; 4 hrs. lab. per week)

# 170 History of Western Art (3)

Prerequisite: ART 101

Major developments of the Arts of Europe and the Americas. (3 hrs. lect. per week)

### 180 History of Asian Art (3)

Prerequisite: ART 101

Major developments of the Arts of Asia. (3 hrs. lect. per week)

### 213 Intermediate Drawing (3)

Prerequisite: ART 113.

Extension of ART 113; drawing concepts unique to this century. (2 hrs. lect.; 4 hrs. lab. per week)

# 214 Life Drawing (3)

Prerequisite or Corequisite: ART 213

Study of the figure. Repeatable once for credit. (2 hrs. lect.; 4 hrs. lab. per week)

# 223 Intermediate Painting (3)

Prerequisites: ART 123

Survey of late 19th and 20th century studio practice with emphasis on abstraction and non-representational painting. (2 hrs. lect.; 4 hrs. lab. per week)

#### 275 Women in Art (3)

Prerequisites: ENG 100 OR placement in ENG 209-260 AND (WS 151 and ART 101 and (SOC 100 or PHIL 100))

An interdisciplinary survey of the role of women as subject/object in the visual arts, their activity as creators of art and as participants in the art world. Crosslisted as WS 275 and credit may be received only for ART 275 OR WS 275 but not both. (3 hrs. lect. per week)

# **ASIAN STUDIES (ASAN)**

# 100 Cross Culture Perception and Awareness (3)

Recommended Preparation: Placement in ENG 22/60

The purpose of this course will be to raise the student's awareness and understanding of the operation and composition of non-American cultures and societies. The skills of observation and analysis that the students will acquire through this course should enable them to confront and interact with any other non-American culture. (3 hrs. lect. per week)

#### 241 Civilizations of Asia (3)

Prerequisite: ENG 22 or 60 OR placement in ENG 100

Recommended Preparation: ENG 100 or Placement in ENG 209-260

Historical survey of major civilizations of Asia from earliest times: East Asia,

Southeast Asia, and South Asia. Cross-listed as HIST 241. (3 hrs. lect.)

# 242 Civilizations of Asia (3)

Prerequisite: ENG 22 or 60 OR placement in ENG 100

Recommended Preparation: ENG 100 or Placement in ENG 209-260 Continuation of ASAN 241. Cross-listed as HIST 242. (3 hrs. lect.)

# **ASTRONOMY (ASTR)**

# 110 Survey of Astronomy (3)

Survey of the nature of the astronomical universe for non-science majors, with emphasis on scientific method and development of scientific thought. (3 hrs. lect. per week)

# AUTO BODY REPAIR AND PAINTING (ABRP)

### 62 Metal Straightening Body Filler Techniques (2)

ABRP majors only. This course prepares the student for the program. It orients the student to the safety practices in the shop environment. Students will gain an understanding of the program requirements, college policies, and occupational/industry expectations as well as an insight into career opportunities. This course will also introduce the student to the use of basic hand tools, working with light gauge metal, and plastic (filler) repair. (60 hrs. total. 6 hrs. lect.; 18 hrs. lab. per week over 2.5 weeks.)

# 63 Welding and Cutting Techniques (2)

Prerequisite: ABRP 62

ABRP majors only. This course will introduce the student to basic oxyacety-lene welding techniques. Oxyacetylene and plasma arc cutting techniques will also be introduced. (60 hrs. total. 6 hrs. lect.; 18 hrs. lab. per week over 2.5 weeks.)

#### 64 Corrosion Repair Techniques (2)

Prerequisite: ABRP 63

ABRP majors only. This course will introduce the student to the proper use, care, and operation of the resistance spot welder. The course will also allow the student to learn, practice, and demonstrate his/her skills as they relate to light gauge metal rust repair. (60 hrs. total. 6 hrs. lect.; 18 hrs. lab. per week over 2.5 weeks.)

#### 65 MIG Welding (2)

Prerequisite: ABRP 64

ABRP majors only. This course will emphasize the use, care and proper operation of the MIG welder. The course will allow the student to learn, practice, and demonstrate his/her skills as they relate to welding techniques associated with auto body repair of light and heavy gauge metal. (60 hrs. total. 6 hrs. lect.; 18 hrs. lab. per week over 2.5 weeks.)

# 66 Refinishing Safety and Vehicle Preparation (3)

Prerequisite: ABRP 62

ABRP majors only. This course provides an introduction to the safety procedures and practices for automotive refinishing including OSHA guidelines, right to know ACT, EPA, etc. Also studied are the pre-refinishing operations needed prior to the application of refinish material to the vehicle. (90 hrs. total. 6 hrs. lect.; 18 hrs. lab. per week over 3.75 weeks)

# 67 Detailing (1)

ABRP majors only. The student will be introduced to the products and equipment used in color finessing. Students will be given the opportunity to learn, practice, and demonstrate his/her skills as they relate to color finessing and final detail of the vehicle for delivery. (30 hrs. total. 6 hrs. lect.; 18 hrs. lab. per week over 1.25 weeks)

### 68 Corrosion Protection Principles (1)

Prerequisite: ABRP 65

ABRP majors only. This course will cover corrosion principles and factory corrosion protection, with emphasis on repair methods and materials for corrosion protection. (30 hrs. total. 6 hrs. lect.; 18 hrs. lab. per week over 1.25 weeks)

# 69 Color Mixing and Matching (3)

Prerequisite: ABRP 66

ABRP majors only. This course introduces the student to the safety procedures, proper operation, and maintenance of the tools and equipment used for automotive refinishing. Topcoat color analysis, tinting, and mixing is introduced with an emphasis on paint application. (90 hrs. total. 6 hrs. lect.; 18 hrs. lab. per week over 3.75 weeks)

# 70 Paint Blending Techniques (3)

Prerequisite: ABRP 69

ABRP majors only. This course will introduce the student to the different techniques and various top coats used for refinishing with emphasis on panel blending. (90 hrs. total. 6 hrs. lect.; 18 hrs. lab. per week over 3.75 weeks)

# 71 Paint Application Problems (2)

Prerequisite: ABRP 70

ABRP majors only. Various paint problems and film defects caused by curing, mixture, and spraying techniques, together with possible solutions will be covered in this course. (60 hrs. total. 6 hrs. lect.; 18 hrs. lab. per week over 2.5 weeks)

#### 72 Automotive Composite Repairs (3)

ABRP majors only. This course provides an introduction to the latest repair techniques of interior and exterior composite parts with an emphasis on composite identification and workability. The student will also have the opportunity to learn, practice, and demonstrate his/her skills as they relate to composite repair. (90 hrs. total. 6 hrs. lect.; 18 hrs. lab. per week over 3.75 weeks)

#### 73 Collision Prep and Panel Alignment (4)

ABRP majors only. This course will introduce the student to the auto body collision repair environment. The focal point of instruction will involve the unibody of the late model collision damaged vehicle and preparation of the vehicle for collision repair. Other areas of instruction will introduce the student to the theory and practice of the adjustment and alignment of door, hood, decklid, etc. (120 hrs. total. 6 hrs. lect.; 18 hrs. lab. per week over 5 weeks)

### 74 Quarter Panel Replacement Techniques (2)

Prerequisite: ABRP 65

ABRP majors only. Primary areas of instruction in this course will include fundamental procedures in the removal of stationary glass and the removal and replacement of a vehicle quarter panel. (60 hrs. total. 6 hrs. lect.; 18 hrs. lab. per week over 2.5 weeks)

### 75 Door Skin Alignment and Replacement (2)

Prerequisite: ABRP 73

ABRP majors only. This course will cover fundamental procedures in the removal, reinstallation, and adjustment of movable door glass. Major emphasis on the theory of removing and replacing door outer skins will also be included. (60 hrs. total. 6 hrs. lect.; 18 hrs. lab. per week over 2.5 weeks)

# 76 Advanced Welding Methods (2)

Prerequisite: ABRP 65

ABRP majors only. The student will be introduced to the theory of the advanced welding that are employed in welding different metal alloys. (60 hrs. total. 6 hrs. lect.: 18 hrs. lab. per week over 2.5 weeks)

### 77 Estimating Vehicle Damage (2)

ABRP majors only. The focus of this course will be to give the student the opportunity to learn the basic skills and understanding needed to read and interpret a damage report. The student will also be given an opportunity to create a manually written damage report. (60 hrs. total. 6 hrs. lect.; 18 hrs. lab. per week over 2.5 weeks)

#### 78 Collision Damage Analysis (3)

ABRP majors only. Specific areas to be covered relate to the identification and analysis of damage through visual inspection and measuring techniques. Emphasis will be placed on the ability to identify quick telltale signs of damage. The student will also move from basic structural measuring prin-ciples, techniques, and equipment to various types of state-of-the-art frame measuring equipment. The unibody of the late model vehicle will be the focal point of instruction. (90 hrs. total. 6 hrs. lect.; 18 hrs. lab. per week over 3.75 weeks)

#### 79 Structural Straightening Techniques (3)

Prerequisite: ABRP 65 and 78

ABRP majors only. The student will learn, practice, and demonstrate his/her skills as they relate to different anchoring systems, and their set-up. This course will further introduce the student to the theory and practice of various straightening techniques and systems. (90 hrs. total. 6 hrs. lect.; 18 hrs. lab. per week over 3.75 weeks)

# 80 Panel Replacement (6)

Prerequisite: ABRP 65 and 79

ABRP majors only. This course will expose the student to factory attachment methods of structural/non-structural components and the proper procedures for replacing these components. Also explored will be the method of sectioning structural/non-structural components. (180 hrs. total. 6 hrs. lect.; 18 hrs. lab. per week over 7.5 weeks)

# 93V Cooperative Education (1-4)

Instructor approval required

ABRP majors only. This course will provide the student with the opportunity to acquire on-the-job experience related to classroom and laboratory instruction in Auto Body Repair and Painting. Students may enroll 4 times for credit up to a maximum of 12 credits. (5 hrs. work experience per week per credit.)

# **AUTOMOTIVE TECHNOLOGY (AMT)**

# 20 Introduction to Automotive Mechanics (2)

Prerequisite: Valid driver's license

ENG 20B & C & D & E OR ESL 11 & 13 & 17 OR placement in ENG 20/60 MATH 20B & C & D OR "C" in MATH 24 or in 50 or in 53 OR placement in

MATH 25 or in 55

Corequisite: AMT 53 and 55

AMT majors only. Policies and procedures of the AMT program, various career opportunities in the automotive field, shop safety, proper use of technical reference manuals and identifying and proper use of basic hand tools and precision measuring tools. (60 hrs. lect./lab per term)

# 30 Engines (8)

Prerequisites: AMT 46 and 50

Corequisite: AMT 40

Recommended Prep: Employed in the automotive industry

AMT majors only. This course will cover shop safety, tools and all components found in the modern internal combustion engine. The course is designed to provide students with an understanding of the fundamental operation and construction of internal combustion engines. Instruction will include theory and laboratory (shop) activities in which students will learn how to inspect, service, maintain, diagnose, and repair automobile engine malfunctions. Course includes live work. (240 hrs. lect./lab. per term)

#### 40 Electrical Systems I (4)

Prerequisites: AMT 46 and 50 and PHYS 56

Corequisite: AMT 30

Recommended Prep: Employed in the automotive industry

AMT majors only. This course will cover shop safety, applicable tools and equipment. It is designed to provide students with the essential theories and practical skills to service and repair battery, starting, charging, and lighting systems. Diagnostic procedures using wiring diagrams and electrical test equipment to locate shorts, grounds, opens and resistance problems will also be covered. Course includes live work. (120 hrs. lect./lab. per term)

# 42 Electrical Systems II (8)

Prerequisites: AMT 30 and 40

Corequisite: AMT 43

AMT majors only. This course is designed to provide students with the essential theories and practical skills in diagnosing, testing and repairing various ignition systems, dash gauges, warning devices, power windows. This course also includes principles of operation of electronic cruise control, along with other solid state accessories and circuitry and wiper systems. Course includes live work. (240 hrs. lect./lab. per term)

# 43 Air Conditioning (4)

Prerequisites: AMT 30 and 40

Corequisite: AMT 42

Recommended Prep: Employed in the automotive industry

AMT majors only. This course covers shop safety, training in specialty tools and equipment. Included are fundamental theories, diagnosis, and repair practices to automotive air conditioning systems. Presented in the course are the operation and function of the vacuum, electrical, refrigeration circuits, along with computer controlled climate control systems. Course includes live work. (120 hrs. lect./lab. per term)

### 46 Powertrain and Manual Transmissions (5)

Prerequisites: AMT 53 and 55

Corequisite: AMT 50

AMT majors only. In this class, students will learn shop safety, proper use of related tools and equipment. The various designs of manual transmissions, differentials, and transaxles are covered in this course along with the many drive line components found in the undercarriage of the automobile. Each major component is covered in detail, including such topics as purpose, application, operation, inspection, diagnosis, and repair. Course includes live work. (150 hrs. lect./lab. per term)

#### 50 Automatic Transmissions/Transaxles (7)

Prerequisites: AMT 53 and 55

Corequisite: AMT 46

Recommended Prep: Employed in the automotive industry

AMT majors only. This course explains the fundamental principles of automatic transmission designs and operations found on both Front Wheel Drive (FWD) and Rear Wheel Drive (RWD) vehicles. Service and overhaul procedures are given on various import and domestic automatic transmissions according to the manufacturer's standards. Introduction to Electronically Controlled Automatic Transmissions (ECAT) also included. (210 hrs. lect./lab. per term)

#### 53 Brakes (5)

Prerequisite: AMT 20 Corequisite: AMT 55

Prerequisite or Corequisite: PHYS 56

AMT majors only. This course covers shop safety, related tools, fundamental principles of operation and practical application needed to perform repairs to automotive braking systems. Various mechanical, hydraulic, vacuum, electrical, and computer devices incorporated in the automobile's braking system will be covered. They include an introduction to Anti-lock Braking Systems manufactured by Teves, Bosch, Delco, and Kelsey-Hayes along with established troubleshooting and service procedures. Course includes live work. (150 hrs. lect./ lab. per term)

# 55 Suspension and Steering (5)

Prerequisite: AMT 20 Corequisite: AMT 53

Prerequisite or Corequisite: PHYS 56

AMT majors only. This course covers the need of today's automotive suspension system specialist. Fundamental information, repair procedures and current

service practices are included. Various types of suspension and steering components found in the modern automobile are covered with steering geometry and wheel alignments of 2 and 4 wheel steering automobiles. An introduction to Supplemental Restraint Systems (air bags) also included. (150 hrs. lect./lab. per term)

# 67 Engine Performance (12)

Prerequisites: AMT 20 and 30 and 40 and 43 and 46 and 50 and 53 and 55 AMT majors only. This course will deal with the systematic diagnostic approach to isolate malfunctions for computerized engine control systems. Students will be introduced to various components and their relationship to others in system functions. The course covers service codes, analysis of drivability symptoms, and pin-point test procedures using modern diagnostic strategies and various state-of-the-art equipment. (360 hrs. lect./lab. per term)

# 93V Cooperative Education (1-4)

Instructor approval required. AMT majors only. This course will provide the student with the opportunity to acquire on-the-job experience related to classroom and laboratory instruction in Automotive Mechanics Technology. Students may enroll 4 times for credit up to a maximum of 12 credits. (5 hrs. work experience per week per credit.)

# **AVIATION MAINTENANCE (AVIA)**

The Aviation Maintenance courses (50, 52, & 53) are intended for those individuals who have qualified to take the General, Airframe and/or Powerplant written tests as authorized by Federal Aviation Regulation Part 65.77 experience requirements. These courses do not apply towards certification under Part 147 of the Federal Aviation Regulations. Refer to the section titled AERONAUTICS MAINTENANCE TECHNOLOGY (AERO) for the courses required for Part 147 certification of aircraft maintenance technicians.

These are survey courses for experienced uncertificated aircraft technicians intended to increase their theoretical and practical understanding of the subjects listed in the course descriptions prior to taking the written and practical exams. The courses may also be beneficial to those individuals planning to enter the Part 147 program and other individuals interested in aircraft maintenance technologies.

#### 50 General Aviation Maintenance (3)

The general course is a non-certification course including Federal Aviation Administration regulations as applicable to maintenance, drafting, precision measurement, weight and balance, electricity, ground operations and servicing, hardware, materials and processes, fluid lines and fittings, non-destructive testing, and physics (3 hrs. lect. per week)

#### 52 Airframe Maintenance (4)

The airframe course is a non-certification course including aerodynamics, wood work, composite materials, fabric and finishes, sheet metal construction and repair, welding, rigging for fixed and rotary wing aircraft, airframe systems, avionics, hydraulics, landing gear, tires, brakes, and inspections. (3 hrs. lect.; 3 hrs. lab. per week)

### 53 Powerplant Maintenance (4)

The powerplant course is a non-certification course including reciprocating engine overhaul and maintenance, engine systems, propeller operation and maintenance, accessory systems, gas turbine operation and maintenance, fuel metering systems, and powerplant electrical systems. (3 hrs. lect.; 3 hrs. lab. per week)

#### **COMMERCIAL AVIATION (AVIT)**

See Commercial Aviation

# **BIOCHEMISTRY (BIOC)**

### 241 Fundamentals of Biochemistry (3)

Prerequisite: MATH 25

Biological chemistry stressing integration of concepts of general, inorganic, and biochemistry and applications to life chemistry. (3 hrs. lect. per week)

# 251 Elements of Biochemistry (3)

Prerequisites: BIOCH 241 or CHEM 151

Biochemical principles and concepts as applied to living systems. Includes sufficient organic chemistry to understand these principles (3 hrs. lect. per week)

# **BIOLOGY (BIOL)**

# 22 Human Anatomy & Physiology (3)

The structure and function of the human body. The organization of the body from cells through organ-systems with particular emphasis on the ten organ systems. This non-laboratory course is designed for students with no previous work in chemistry or physics. (3 hrs. lect. per week)

#### 100 Human Biology (3)

An introduction to the structure and function of cells, tissues, organs, and organ systems of the body. In addition, there will be selected topics on nutrition, infectious diseases and immunity, the nature of cancer, reproductive biology, and human genetic disorders. (3 hrs. lect. per week)

#### **BLUEPRINT READING (BLPR)**

# 22 Blueprint Reading (3)

A basic course designed primarily for students in the construction trades. Topics include principles of graphic representation, basic building construction, interpretation of working drawings, and building specifications. (3 hrs. lect. per week)

# **BOTANY (BOT)**

#### 101 General Botany I (3)

Corequisite: BOT 101L

Lectures in this course will explore plant growth and development by means of a study of plant structure and function. There will be a consideration of evolution and classification and the interaction between plants and the environment. (3 hrs. lect. per week)

# 101L General Botany I Laboratory (1)

Corequisite: BOT 101

Laboratories will involve specific application of lecture material and several field trips to various parts of Oahu. (3 hrs. lab. per week)

### 105 Mea Kanu: Hawaiian Plants and Their Uses (3)

Prerequisites: ENG 20B & C & D & E OR ESL 11 & 13 & 17 OR placement in ENG 22/60

This course explores the cultural uses of plants by humans in the Hawaiian archipelago and elsewhere in Polynesia. Focus will be upon those plants that were originally found in Hawai'i when early settlers came and those plants that were brought by them. Cross-listed as HAWNA 105. (3 hrs. lect. per week)

# 130 Plants in the Hawaiian Environment (3)

Corequisite: BOT 130L

This course is a study of some of the plants which grow in Hawai'i. Plants will be identified and discussed in regard to their form and structure. Evolution and ecology of the plants will also be considered. (3 hrs. lect. per week)

### 130L Plants in the Hawaiian Environment Laboratory (1)

Corequisite: BOT 130

Laboratories will involve specific application of lecture material and several field trips to various parts of Oahu. (3 hrs. lab. per week)

# **BUSINESS LAW (BLAW)**

# 200 Legal Environment of Business (3)

Prerequisites: ENG 100 and MATH 25 OR placement in ENG 209-260 and MATH 100

Introduction to the legal environment of business operations with particular attention to principles of law relating to contracts, agency, partnerships, and corporations. May be taken on a CR/NC basis. (3 hrs. lect. per week)

# **CARPENTRY (CARP)**

#### 20 Materials, Hardware, and Tools Maintenance (11)

Prerequisite: ENG 20B & C & D & E or ESL 11 & 13 & 17 OR placement in ENG 21/51

MATH 20B & C & D OR placement in MATH 50/53

Corequisite: CARP 30

CARP major only. This course provides an overview of the materials, hardware, and fastening devices currently used in the industry. The care and maintenance of hand and power tools are covered. (5 hrs. lect.; 18 hrs. lab. per week)

#### 22 Concrete Form Construction (11)

CARP major only. This course is designed to familiarize students with concrete form construction. Topics include the construction terms, materials, methods used in construction, techniques in heavy concrete construction, uses of the builder's transit for leveling, setting grade lines, sighting overhead points, and plumbing columns. (5 hrs. lect.; 18 hrs. lab. per week)

#### 30 Blueprint Reading for Carpenters (4)

CARP majors only. The interpretation of symbols, conventions, legends, abbreviations, dimensioning techniques, visualization of subject projects, techniques and procedures for extraction from a set of construction drawings, information for accurate construction and the preparation of necessary drawings and sketches as required by the carpenter. (2 hrs. lect.; 6 hrs. lab. per week)

# 41 Rough Framing and Exterior Finish (11)

CARP major only. This course is designed to show the student the basics of good house construction. Topics include layout and construction techniques of the various parts of a building—footings, foundations, wall and roof framings, roofings, exterior sidings, and door and window frames. City and County of Honolulu and Uniform Building Code regulations are introduced. (5 hrs. lect.; 18 hrs. lab. per week)

# 42 Finishing (11)

Instructor approval required. CARP major only. This course is designed to show the student the methods and materials used to finish the interior of a house. Topics include the reading of plans, preparation and application of the various ceiling materials, partition layout, wall and partition panels, door frames, hanging doors, closets, bathroom linings, kitchen cabinets, interior trims, finishing hardware, and material estimating. (5 hrs. lect.; 18 hrs. lab. per week)

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

Instructor approval required. CARP majors only. This course will provide the student with the opportunity to acquire on-the-job experience related to classroom and laboratory instruction in carpentry. Students may enroll 4 times for credit up to a maximum of 12 credits. (5 hrs. work experience per week per credit)

# **CHEMISTRY (CHEM)**

# 55 Fundamentals of Cosmetic Chemistry (3)

Prerequisite or Corequisite: COSME 30 and 31L

COSME majors only. Application of chemical principles to cosmetology. The course content will include: atomic structure, chemical bonding, acids and bases, hair structure, shampoos, bleaches and tints, waving and hair straightening. (3 hrs. lect. per week)

# 100 Chemistry and Man (3)

Corequisite: CHEM 100L

A non-mathematical descriptive overview designed to give the non-science major a basic understanding of chemistry, particularly as it relates to problems of society and the environment. The course includes topics such as atomic structure, chemical bonding, nuclear power and energy sources, air and water pollution, pesticides, drugs, plastics, soaps and detergents, and nutrition. (3 hrs. lect. per week)

# 100L Chemistry and Man Laboratory (1)

Corequisite: CHEM 100

Experiments illustrating the role of chemistry in society to the nonscientist. (3 hrs. lab. per week)

# 105 Environmental Chemistry (4)

Prerequisites:

ENG 20B & C & D & E or ESL 11 & 13 & 17 OR placement in ENG 22/60 (MATH 20E & F & G) or 50 or 53 OR placement in MATH 24/55

For OESM and FIRE majors. LBART: Request Instructor Approval. Introductory chemistry course covering basic and applied chemistry necessary for understanding toxicological and environmental effects of chemicals. Coordinated lecture and laboratory activities in basic chemistry, hazardous materials, applied biochemistry, and environmental chemistry. (3 hrs. lect.; 3 hrs. lab. per week)

# 151 Elementary Survey of Chemistry (3)

Prerequisite: MATH 25 OR placement in MATH 27/103

Corequisite: CHEM 151L

Intended to provide the beginning student with a non-rigorous but adequate background in the fundamentals of chemistry. Suitable for students preparing for training in the life sciences and for those seeking a practical approach to chemistry. (3 hrs. lect. per week)

# 151L Elementary Survey of Chemistry Laboratory (1)

Prerequisite: MATH 25 OR placement in MATH 27/103

Corequisite: CHEM 151

Experiments introducing laboratory techniques and illustrating chemical principles. (3 hrs. lab. per week)

# 152 Survey of Organic & Bioorganic Chemistry (3)

Prerequisite: (CHEM 151 and 151L) OR (162 or 171)

Structure, nomenclature, properties, reactions of organic compounds emphasizing those of practical importance in related fields. May be taken on a CR/NC basis. (3 hrs. lect. per week)

# 152L Survey of Organic & Bioorganic Chemistry Laboratory (1)

Prerequisites: CHEM 151L or 171L Prerequisite or Corequisite: CHEM 152

Techniques of preparation, purification, identification of organic compounds. May be taken on a CR/N basis. (3 hrs. lab. per week)

# 161-162 General Chemistry I & II (3-3)

161 Prerequisite: MATH 27 or 103 OR placement in MATH 135/QM 121 162 Prerequisite: CHEM 161 and MATH 135 OR placement in MATH 140 Corequisite: CHEM 161L with CHEM 161; CHEM 162L with CHEM 162 A two-semester transfer level course for health/science majors and for engineering majors. Basic principles of chemistry. Introduction to electronic structure, chemical bonding, solutions, kinetics, equilibrium, phases, and energy changes in matter. (3 hrs. lect. per week)

# 161L-162L General Chemistry I & II Laboratory (1-1)

161L Prerequisite: MATH 27 or 103 OR placement in MATH 135/QM 121 162L Prerequisite: CHEM 161L and MATH 135 OR placement in MATH 140 Corequisite: CHEM 161 with CHEM 161L; CHEM 162 with CHEM 162L Laboratory experiments illustrating concepts of chemistry discussed in CHEM 161 & CHEM 162. (3 hrs. lab. per week)

# CHINESE (CHNS)\*

# 101-102 Elementary Mandarin I-II (4-4)

101 Prerequisite: ENG 20B & C & D & E OR ESL 11 & 13 & 17 OR placement in ENG 22/60

102 Prerequisite: CHNS 101

Development of listening, speaking, reading, writing. Laboratory work is required.

(4 hrs. lect.; 1 hr. lab. per week)

<sup>\*</sup>Native speakers may not take language courses for credit.

### CIVIL ENGINEERING (CE)

# 123 Computer Aided Design and Drafting (1)

Prerequisites: MATH 205 (or concurrent)

Introductory course in engineering drawing employing the computer. Topics include theory of projections, multiview representations, orthographic and isometric drawing, and dimensioning. (1 hr. lab. per week)

# 211 Surveying I (3)

Prerequisites: MATH 140 OR placement in MATH 205

Basic principles of plane surveying including reference planes and surfaces; use of instruments for distance and angular measurements; traverse adjustment; heights; measurement theory; computer applications; topographic surveying. (2 hrs. lect.; 3 hrs. lab. per week)

# 270 Applied Mechanics I (3)

Prerequisites: PHYS 170

The 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. Vectors, force systems, friction, centroids and moment of inertia. (3 hrs. lect. per week)

# 271 Applied Mechanics II (3)

Prerequisites: "C" or higher in CE 270 and in MATH 206

Dynamics of particles and rigid bodies; force-acceleration; impulse-momen-

tum; work-energy. (3 hrs. lect. per week)

# **COMMERCIAL AVIATION (AVIT)**

#### 102 Introduction to Aviation (5)

AVIT majors only. This course enables the students to develop the knowledge and skills needed to safely exercise the privileges and respnsibilities of a Private Pilot acting as Pilot-in-Command of a single-engine airplane. The student must complete the appropriate flight lessons to satisfactorily complete the course. (5 hrs. lect. per week)

# 104 Aviation History (3)

AVIT majors only. This course will cover the history of aviation from its very beginnings through the Apollo space program. It will be a composite of lecture and videos and will also require written research papers. (3 hrs. lect. per week plus associated flight lessons)

# 202 Air Transportation (3)

Prerequisite: AVIT 102

This course provides an understanding of all aspects of the air transportation industry. Topics include state and federal regulations. Requirements of the past, present and future with respect to aircraft and engine design, airports and supporting facilities are covered. Students are introduced to the practical economics of airline operations and maintenance and factors which affect a profit or loss situation. (3 hrs. lect. per week)

# 203 Introduction to Air Traffic Control (2)

Prerequisite: AVIT 102

This course includes the development of ATC personnel and technology and the physiological and psychological requirements of an ATC career. It also includes the components and functions of the National Airspace System, the structure and functions of both Terminal and Enroute ATC facilities and the impact of major technological changes anticipated in the future. (2 hrs. lect. per week)

# 205 Airline Operations and Management (3)

Prerequisite: AVIT 202

This course is designed to cover the complex area of operational techniques and problems confronting the airlines today. Officials from airlines will conduct discussion on the real and immediate problems in airline operations. Market research and passenger trends, route feasibility studies and criteria transport aircraft will be stressed. (3 hrs. lect. per week)

# 208 Aviation Safety (3)

Prerequisite: AVIT 102

This course provides the students with a detailed introduction into aspects of aviation safety risk management and the associated components of pilot psychology, human factors, and accident trends, factors and analysis. (3 hrs lect. per week)

# 214 CFI Certification (5)

Prerequisite: "C" or higher in AVIT 255

This course provides the student with a detailed study of the responsibilities and teaching concerns of a flight instructor. The course is divided into two major sections: fundamentals of teaching and learning and the analysis of the flight maneuvers involved with Private Pilot, Commercial Pilot and Flight Instructor Certificates. The course also provides practical teaching experiences and includes associated flight lessons. (5 hrs. lect. per week)

# 250 Human Factors (2)

AVIT majors only. This course introduces the student to the human element of the "human machine interface" in aviation. The course is designed to provide the student with a basic understanding of the human factors concepts including psychological and basic physiological limitations of humans operating in complex environments and design elements that allow for optimizing human-machine interactions. (2 hrs. lect. per week)

#### 251 Aircraft Systems and Instruments (3)

Prerequisite: "C" or higher in AVIT 102

AVIT majors only. This course provides an in-depth study of flight instruments as well as reciprocating engine. propeller, electrical, environmental, hydraulic, pneumatic, fuel, ignition, lubrication, and pressurization systems. (3 hrs. lect. per week)

### 252 Basic Attitude Instrument Flying (3)

Prerequisite: "C" or higher in AVIT 102

AVIT majors only. This course will include an in-depth study of basic attitude instrument flying. In addition, the operation, interpretation and practical use of VOR, ADF, DME, RNAV, RMI, HSI, and Flight Director systems will be studied. Finally the course will include the different types of instrument charts required for IFR flight. The student must complete the appropriate flight lessons to satisfactorily complete the course. (3 hrs. lect. per week plus associated flight lessons)

# 253 Aerodynamics - Airplane (3)

Prerequisites: "C" or higher in AVIT 251 and AVIT 252

Corequisite: AVIT 254

This course will provide a study of aerodynamics, performance, stability, control, weight and balance, and special flight conditions as appropriate for commercial pilots. A discussion of commercial maneuvers and flight computers is included. The student must complete the appropriate flight lessons to satisfactorily complete the course (3 hrs. lect. per week)

### 254 IFR Regulations and Procedures (3)

Prerequisites: "C" or higher in AVIT 251 and AVIT 252

Corequisite: AVIT 253

This course will provide the student with a detailed study of the regulations, procedures and publications necessary for operating IFR in the national airspace system. Terminal and enroute procedures will be studied in detail. The student must complete the appropriate flight lessons to satisfactorily complete the course. (3 hrs. lect. per week)

# 255 Multiengine Systems and Procedures (2)

Prerequisites: "C" or higher in AVIT 253 and AVIT 254

This course covers the operations necessary to operate light twin-engine aircraft. Normal and abnormal procedures are included along with a discussion of the systems and aerodynamics normally associated with these aircraft. Regulations for commercial pilots are included. The student must complete the appropriate flight lessons to satisfactorily complete the course. (2 hrs. lect. per week)

# COMMUNICATION (COM)

# 63C Broadcasting Laboratory (Television) (3)

A basic "hands on" course in the operation of equipment necessary to produce a television program and to record and playback same. (3 hrs. lect.; lab arranged per week)

#### 263D Broadcasting Laboratory (Performance) (3)

Principles of the drama emphasized in writing, acting, and producing via audio visual tapes development. The course offers an introduction to drama through participation. (3 hrs. lect. per week)

# **COMMUNICATION ARTS (CA)**

#### 100 Survey of Graphic Styles (3)

Prerequisite: ENG 22 or 60 OR placement in ENG 100

The history, theory and criticism of communication arts since the industrial revolution, including how technology has been integrated into its production. Course is to include an overview of production methods used in the communication arts today. (3 hrs. lect. per week)

#### 101 Power of Advertising (3)

Prerequisite: ENG 22 or 60 OR placement in ENG 100

A look at the world of mass communications and its interrelationship to our culture. This course studies the impact and relevance of mass media on our society as technology moves us even farther into the information age. Emphasis is on how media affects and manipulates popular culture today through the understanding of the relationship between mass communication and culture. (3 hrs. lect. per week)

### 121 Art Preparation I (4)

CA majors only. Art Preparation I focuses on preparing art work for printing using graphics generating programs and applicable hardware in combination with selected handtools. Emphasis on direct input to include drawing, tracing, and converting images for importing/exporting as well as understanding the various file formats. (4 hrs. lect./demo per week)

# 122 Copy Preparation (4)

CA majors only. Copy Preparation focuses on preparing text for print production using appropriate programs in combination with applicable hardware. Emphasis on skill development in typesetting to include understanding type fundamentals, fonts, character recognition and its uses as well as typographic imaging or special effects. (4 hrs. lect./demo per week)

# 123 Color and Comprehensives (4)

CA majors only. Color and Comprehensives focuses on the study of basic color theories, vocabulary, as well as practical applications of it in the preparation of color comprehensives for presentation. Emphasis on producing one of a kind representation of the end printed result. Skill development to include a combination of techniques that result in the ability to approximate the finished printed piece. (4 hrs. lect. per week)

# 125 Beginning Graphic Design (4)

CA majors only. An introductory course in graphic design solutions, to include the application of art and communication skills to problem solving for visual solutions for business and industry needs. Emphasis is on design fundamentals; communicative concepts, strategy and problem solving processes; typography; as well as various layout formats. (4 hrs. lect. per week)

#### 130 Safety Practices (1)

*CA majors only.* Introductory course on safety practices in communication arts. Emphasis on general and specific precautions of physical and chemical hazards in the workplace, Standard Operating Procedures, and Material Safety Data Sheets. (1 hr. lect. per week)

#### 131 Art Preparation II (4)

CA majors only. Art Preparation II focuses on preparing art work for printing using graphics generating programs in combination with applicable hardware. Emphasis on digital photographic imaging. Skill development to include color correction, manipulation and basic editing. (4 hrs. lect. per week)

#### 132 Page Composition I (4)

Prerequisites: CA 121 and 122

CA majors only. Page Composition I is a basic paste up for preparing simple digital mechanicals for offset printing. Emphasis on preparing mechanicals for brochures, newspaper ads and other print formats incorporating tints, reverses and manipulated type, as well as single, spot color separations and trapping. (4 hrs. lect. per week)

# 134 Still Imaging I (4)

CA majors only. Introduction to photographic materials used in commercial photography. Course work includes types of assignments for a commercial photographer. Adjustable camera capable of being used manually and a light meter are required. Lab fee for supplies. (4 hrs. lect. per week)

# 135 Typographic Design (4)

Prerequisite: CA 122

CA majors only. Emphasis on electronic typographic design projects, concept development with exposure to historical and contemporary type issues. Continuation of study of basic type fundamentals from CA 122. (4 hrs. lect./demo per week)

# 137 Motion Imaging I (4)

Prerequisite: CA 131

CA majors only. An introductory course in video editing, to include videography, preproduction and postproduction concepts, image captures and digital editing. (4 hrs. lect. per week)

# 138 Motion Imaging II (4)

Prerequisite: CA 121

CA majors only. An introduction to basic 2-D animation. Includes history and concepts of 2-D animation; introduction to animation structures; frame-by-frame and tweened animations; animation with sound. (4 hrs. lect. per week)

### 141 Beginning Offset Press (7)

Prerequisites: CA 130 and 132

Corequisite: CA 143

CA majors only. Beginning Offset Press focuses on platemaking and basic press operations. Emphasis is on platemaking, duplicator and printing operations and includes considerations related to paper and ink characteristics, quality control, and press maintenance. (3 hrs. lect.: 4 hrs. lab. per week)

# 142 Page Composition II (4)

Prerequisites: CA 131 and 132

CA majors only. An advanced paste up course for preparing digital mechanicals for offset print production using appropriate layout software in combination with applicable hardware. Emphasis on preparing complex mechanicals and includes assessing available page layout software; output devices; proofing; networking; storage and transfer; files and formats; and maintenance and management. (4 hrs. lect. per week)

# 143 Prepress and Image Assembly (4)

Prerequisite: CA 132 Corequisite: CA 142

CA majors only. Prepress and Image Assembly focuses on producing composited film for platemaking. Emphasis is on the preparation of the mechanical to output to an imagesetter as film negatives for platemaking. Includes image assembly, line conversion, full color separation as well as proofing. (4 hrs. lect. per week)

# 144 Still Imaging II (4)

Prerequisite: CA 131

CA majors only. Introduction to electronic imaging. Emphasis on tools, techniques and software used to acquire and manipulate electronic images. (4 hrs. lect per week)

#### 145 Graphic Design (4)

Prerequisites: CA 100, 125, 132, 135

CA majors only. An advanced course in design solutions for various client related needs such as posters, brochures, publications, symbols and corporate systems. Use of computer and other media skills. Emphasis on communication skills to include oral, written and visual presentation. (4 hrs. lect. per week)

### 146 Advertising Design (4)

Prerequisites: CA 100, 125, 132, 135

CA majors only. Advanced design course for planning and producing promotional and advertising material primarily for print media in consumer advertisements, direct advertising, point of purchase and public relations. Emphasis on art direction and techniques used in the development of an ad campaign. (4 hrs. lect. per week)

# 147 Studio Photography (4)

Prerequisite: CA 134

CA majors only. Introduction to cameras, meters, lighting, materials, etc. used in studio photography. Adjustable camera capable of being used manually and a light meter required. Lab fee. (4 hrs. lect. per week)

# 148 3-D Animation (4)

Prerequisite: CA 138

CA majors only. An introduction to basic 3-D animation. Includes history and concepts of 3-D animation; modeling; rendering; 2- and 3-D texture mapping; Boolean operations; motion capture; and special effects (4 hrs. lect. per week)

# 150 Special Projects (4)

Prerequisite: CA 142

CA majors only. An advanced course that provides students with on-the-job experience in a classroom environment. Emphasis is on producing posters, brochures, and other publications from conception to finish printed material. Extensive use of computer and other media skills. (4 hrs. lect. per week)

# 151 Advanced Offset Press (8)

Prerequisite: CA 141

CA majors only. Advance Offset Press is a continuation of platemaking and press operations. Emphasis is on quality control, press maintenance and advance press operations (4 hrs. lect.; 4 hrs. lab per week)

# 152 The Business of Advertising (4)

Prerequisites: CA 101 and CA 145

CA majors only. Overview of the structure of the advertising industry including an in-depth look at current business practice and employment in the various areas of the industry. (4 hrs. lect. per week)

# 155 Portfolio Presentation and Review (4)

Prerequisite: CA 141 or CA 145 Corequisite: CA 151 or CA 152

CA majors only. Preparation, presentation, and review of a professional visual portfolio as required for employment in Communications Art and related fields. Emphasis on developing a cohesive presentation format of projects reflecting various skills. (4 hrs. lect. per week)

# 193V Cooperative Education (1-4)

Instructor approval required.

CA majors only. This course will provide the student with the opportunity to acquire on-the-job experience related to classroom and laboratory instruction in Communication Arts. Students may enroll 4 times for credit up to a maximum of 12 credits. (5 hrs. work experience per week per credit)

#### COMPUTING, ELECTRONICS, AND NETWORKING TECHNOLOGY (CENT)

#### 102 Introduction to Internet Resources (3)

Prerequisite: ICS 100 or 100E or 100M or 100T or 101

CENT majors only. Some sections may be restricted to CENT majors. This course introduces the many resources available on the Internet. Topics will include history, current issues and how the Internet works. Terminology, file formats, and naming conventions will be covered. Students will be introduced to the concept of client-server programs as they apply to the Internet. Special emphasis will be place on the World Wide Web, where students will learn to browse and publish information. Cross-listed as ICS 102. Credit may be received for only CENT 102 or for ICS 102 but not for both. (3 hrs. lect. per week)

# 110 Introduction to Information Systems (3)

Prerequisite: ICS 100E

This course is designed to introduce students to the fundamental concepts and skills of software development. Students learn how programs are written and what the fundamental building blocks are. Students are introduced to the software development process. Topics such as compilers, interpreters, clients and servers, introduction to naming issues, programming languages and syntax are covered. (3 hrs. lect. per week)

#### 112 Fundamentals of Electronics (4)

Prerequisite or Corequisite: MATH 27 or 103 or 107 OR placement in MATH 135 or higher.

Prerequisite: ENG 22 or 60 OR placement in ENG 100

Eligible CENT majors only. This course covers the basics of electricity and electronics. Topics include electrical principles, OHM's Law, Kirchhoff's Laws, DC circuit analysis fundamentals, power semiconductors diodes, and transistors. The student will build and test their own electronic circuits. (3 hrs. lect.; 3 hrs. lab per week)

# 113 Digital Electronics (4)

Eligible CENT majors only. This course introduces number systems and codes, combinational circuit analysis using Boolean algebra and De Morgan's theorem, multivibrator circuits, memory and storage devices. (3 hrs. lect.; 3 hrs. lab per week)

# 115 Introduction to Computer Systems (3)

Prerequisite: ICS 100E

This course is designed to introduce students to the fundamentals of using and maintaining computer systems in a networking environment. The basic components and functions of the computer and the network are introduced, along with the tools and procedures for their operation and maintaintenance. (3 hrs. lect. per week)

# 130 Microcomputer Operating Systems (4)

Eligible CENT majors only. This course covers the features of the microcomputer operating system, providing the student with a solid background in the installation, configuration, and management of the operating systems. This course will help the student prepare for the MSCE Windows 95 exam. (3 hrs. lect.; 3 hrs. lab. per week)

### 131 Microcomputer Hardware I (4)

Prerequisites: CENT 115 and CENT 130

This is an introductory course in computer hardware. The student will learn how to install, upgrade and repair desktop computers. This course, along with CENT 232, will prepare the student to take the core module of the A+ Certification Exam. (3 hrs. lect.; 3 hrs. lab. per week)

# 140 Computer Networking I (4)

Prerequisites: CENT 115 and CENT 130

This course will introduce the student to the OSI model and industry standards. It will define and describe different network topologies, introduce IP addressing including subnet masks, and have the student perform basic network copper cabling. (3 hrs. lect.; 3 hrs. lab. per week)

# 164 Application of Devices I (4)

Prerequisites: CENT 112 and CENT 113

The study of semiconductor diode applications in rectifiers, voltage regulators, and signal conditioning circuits. Bipolar transistor biasing and applications in switching and signal amplification. Analysis of cascaded multistage amplifiers. (3 hrs. lect.; 3 hrs. lab. per week)

# 212 Electronic Analyses (4)

Prerequisites: CENT 112 and CENT 113

This course provides the student with basic AC theory and concepts. Topics include instantaneous voltages and currents, capacitive and inductive reactance, series and parallel circuit impedance, phasors, resonance, and impedance matching. (3 hrs. lect.; 3 hrs. lab. per week)

#### 215 Network Administration (3)

Prerequisite: CENT 140

CENT Majors only. A course that covers network administration using a Novell NetWare network as a model. Students will learn to manage the hardware and software as well as setup users, directories, and security. Cross-listed as ICS 215. Credit may be received for only CENT 215 or for ICS 215 but not for both. (3 hrs. lect. per week)

# 227 Networking with TCP/IP and UNIX (3)

Prerequisite: CENT 140

CENT Majors only. A course that covers the essentials of networking computers using the TCP/IP protocol. The UNIX operating system will be used as the primary example of networking, although interoperability with other operating systems will be covered. Cross-listed as ICS 227. Credit may be received for only CENT 227 or for ICS 227 but not for both. (2 hrs. lect.; 3 hrs. lab per week)

#### 231 Data Communication (4)

Prerequisites: CENT 140

This course will provide an introduction to telecommunication systems with an emphasis on digital data communication. Topics will include transmission techniques, transmission media, the public switched telephone system, digital encoding schemes, and the emerging technologies of data communication. (3 hrs. lect.; 3 hrs. lab. per week)

### 232 Microcomputer Hardware II (4)

Prerequisites: CENT 131 and CENT 140

This course provides a basic understanding of the following computer peripheral hardware devices: Printers, monitors, scanners and multimedia systems. Students will learn troubleshooting procedures for computer serial, parallel and video ports and will troubleshoot printers and monitors. This course, along with CENT 131, will prepare the student to take the core module of the A+Certification Exam. (3 hrs. lect.; 3 hrs. lab. per week)

# 240 Computer Networking II (4)

Prerequisite: CENT 140

This is an intermediate course in computer networking. Enterprise networks, made up of segments of LANs, are introduced. The function of the router in the network is covered, along with various routing protocols. Topics include the installation, configuration, and troubleshooting of the router. This course is designed to help prepare the student for the Cisco CCNA (Cisco certified network associate) exam. (3 hrs. lect.; 3 hrs. lab. per week)

# 245 Networking III (4)

Prerequisite: CENT 240 Recommended Prep: CCNA

CENT 245 is a lecture/lab course covering topics on scalable networks. Emphasis is on scalable routing protocols like OSPF, EIGRP, and BGP. This course prepares the student for the CCNP Routing Exam. (3 hrs. lect.; 3 hrs. lab. per week)

# 251 UNIX System Administration (4)

Prerequisite: CENT 130

A course that covers the essentials of maintaining a computer that uses the UNIX operating system. Students will learn to start up and shut down a UNIX system, maintain user accounts, do routine maintenance such as installing hardware and backing up system and user files. Students will learn the accepted practices and responsibilities of a system administrator. (3 hrs. lect.; 3 hrs. lab. per week.)

#### 260 Electronic Diagnosis and Repair I (4)

Prerequisites: CENT 131

This course provides a solid foundation in the diagnostics and troubleshooting of electronic systems. The emphasis of this course is on office machines (copiers and fax machines), audio systems (analog and digital), and electronic appliances. (2 hrs. lect.; 6 hrs. lab. per week)

#### 261 Electronic Diagnosis and Repair II (4)

Prerequisites: CENT 131

This course provides a solid foundation in the diagnostics and troubleshooting of electronic systems. The emphasis of this course is on analog and digital video systems (TV, VCR, Monitors). (2 hrs. lect.; 6 hrs. lab. per week)

### 262 Wireless Communication Systems (4)

Prerequisites: CENT 212 and CENT 264

This course is an introduction to electronic wireless communication systems. Topics include amplitude and frequency modulation, electromagnetic transmission and reception concepts and methods for analog and digital signals, and microwave, cellular and satellite communication systems. (3 hrs. lect.; 3 hrs. lab. per week)

# 263 FCC Exam Preparation (3)

Prerequisite: CENT 262

This course prepares the student to take Element 1 and Element 3 of the Federal Communications Commission "General Radiotelephone Operator's License" Exam. Topics covered include Analog and Digital Electronics and Electronics Communications. (3 hrs. lect. per week)

### 264 Application of Devices II (4)

Prerequisite: CENT 164

The study of field effect transistor biasing, and differential and operational amplifier characteristics. Applications of FET and op-amp in amplifiers, and op-amp converters. Characteristics and application of thyristors in commonly used circuits. (3 hrs. lect.; 3 hrs. lab. per week)

# 270 Network Operating Systems I (4)

Prerequisite: CENT 140

This course covers the installation, configuration and administration of a network server and the deployment and administration of workstation machines. This course also introduces the student to the management of a Computer Network. (3 hrs. lect.; 3 hrs. lab. per week)

# 272 Network Operating Systems II (4)

Prerequisite: CENT 270

This course covers the installation, configuration and administration of a Network Infrastructure. Various network services and applications that enhance the administration, management and performance of a Computer Network are featured. (3 hrs. lect.; 3 hrs. lab. per week)

### 274 Web Servers (4)

Prerequisite: CENT 102 and CENT 140

This is an introductory course in web servers. The internet and World Wide Web is introduced, along with capabilities of a web server. The installation and managing of the web server is covered. Hardware and software requirements are discussed, as well as issues like network security and password protection. (3 hrs. lect.; 3 hrs. lab. per week)

#### 290V CENT Internship (1-4)

Prerequisite: CENT 131 and CENT 140

CENT Internship will provide the student with instruction and hands-on work experience related to the major field of interest, under the guidance of an HCC faculty member and a worksite supervisor. The semester's study should be comprehensive, covering as many aspects of the career field as possible. Emphasis is placed on integrating classroom and laboratory instruction with real world experience. In addition to work production and technical skills, particular attention will be directed towards workplace ethics and the student's ability to demonstrate positive work habits. Under special circumstances, and with prior approval of the program faculty, CENT 290V/293V may be repeated once for elective credit. Under these circumstances, up to 8 elective credits may be earned. (5 hrs. work experience per week per credit)

# 293V Cooperative Education (1-4)

Prerequisite: CENT 131 and CENT 140

Cooperative Education will provide the student with instruction and paid handson work experience related to CENT, under the guidance of an HCC faculty
member and a worksite supervisor. The semester's study should be comprehensive, covering as many aspects of the career field as possible. Emphasis
is placed on integrating classroom and laboratory instruction with real world
experience. In addition to work production and technical skills, particular
attention will be directed towards workplace ethics and the student's ability
to demonstrate positive work habits. Under special circumstances, and with
prior approval of the program faculty, CENT 290V/293V may be repeated once
for elective credit. Under these circumstances, up to 8 elective credits may be
earned. (5 hrs. work experience per week per credit)

# 297 UNIX System Administration (4)

Prerequisite: CENT 130

A course that covers the essentials of maintaining a computer that uses the UNIX operating system. Students will learn to startup and shut down a UNIX system, maintain user accounts, do routine maintenance such as installing hardware and backing up system and user files. Students will learn the accepted practices and responsibilities of a system administrator. (3 hrs. lect., 3 hrs. lab. per week)

### 299V Special Studies (1-4)

Prerequisite: CENT 131 and CENT 140

Conducted in a seminar format. Students choose course of study and be responsible for development of study area. Each study must be pre-approved by instructor. Suggested topics for study are biomedical electronics, video multimedia systems, web server and web site development. (5 hrs. work experience per week per credit)

### COSMETOLOGY (COSM)

### 20 Elementary Cosmetology Theory (5)

Prerequisites: High School diploma or equivalent

ENG 20B & C & D & E OR ESL 11 & 13 & 17 OR placement in ENG 21-60

MATH 20B & C & D OR placement in MATH 24/50/53

Corequisites: COSM 21L and SP 50

COSM majors only. Basics of hygiene, sanitation and sterilization, structure and chemistry of hair, skin and nails, personal grooming, safety and the Hawai'i State Board Rules and Regulations. (5 hrs. lect. min. per week)

# 21L Elementary Cosmetology Laboratory (10)

Prerequisites: High School diploma or equivalent

ENG 20B & C & D & E OR ESL 11 & 13 & 17 OR placement in ENG 21/60

MATH 20B & C & D OR placement in MATH 24/50/53

Coreguisites: COSM 20 and SP 50

COSM majors only. A basic foundation of practical skills in shampooing, hair cutting, styling, hair coloring, permanent waving, manicuring, facials and scalp treatments. (30 hrs. lab. min. per week)

# 30 Intermediate Cosmetology Theory (3)

Prerequisites: "C" or higher in COSM 20 and in 21L

Corequisites: COSM 31L and CHEM 55

COSM majors only. Continuation of scientific theory that acquaints the student with disorders of the skin, hair and nails with a correlation to practical skills and salon management. (3 hrs. lect. min. per week)

# 31L Intermediate Cosmetology Laboratory (10)

Prerequisites: "C" or higher in COSM 20 and in 21L

Corequisites: COSM 30 and CHEM 55

COSM majors only. The students engage in intermediate training and practice the manipulative skills of cosmetology on patrons from the community in a salon atmosphere. This also provides the student an opportunity to develop an understanding of patron-operator relationship. Students will be given the opportunity to prescribe services and products with the introduction of retailing. (31 hrs. lab. min. per week)

# 40 Advanced Cosmetology Theory (3)

Prerequisites: "C" or higher in COSM 30 and in 31L

Corequisite: COSM 41L

COSM majors only. Theory as applied to the principles of hair styling, hair cutting, hair coloring, permanent waving, nails, facials and make-up. (3 hrs. lect. min. per week)

# 41L Advanced Cosmetology Laboratory (10)

Prerequisites: "C" or higher in COSM 30 and in 31L

Corequisite: COSM 40

COSM majors only. The students engage in advanced training and practice the manipulative skills of cosmetology on patrons from community in a beauty salon atmosphere. New techniques and up-dated procedures are introduced. The students have the opportunity to develop product recommendation skills with retailing. (31 hrs. lab. min. per week)

### 50V Cosmetology Theory and Practice (1-6)

Prerequisite: "C" or higher in COSM 40 and in 41L

COSM majors only. Continuation of cosmetology theory and lab. Hours apply toward the 1800 hours required to qualify for the State Board examination. Repeatable 7 times. (33 hrs. lect./lab. min. per week)

### 60 Basic Esthetician Theory (5)

Prerequisite: High school diploma and Placement in ENG 22/60

Corequisite: COSM 61L

COSM majors only. Basics of bacteriology, sterilization, disinfection and safety in the salon. Basics of physiology and histology and disorders of skin; ingredients and product analysis and color theory. (5 hrs. lect. per week)

# 61L Basic Esthetician Laboratory (5)

Prerequisite: High school diploma and Placement in ENG 22/60

Corequisite: COSM 60

COSM majors only. A basic foundation of practical skills in facial cleansing, facial massage, facial treatments, hair removal and makeup application. (15 hrs. lab. min. per week)

# 70 Advanced Esthetician Theory (5)

Prerequisite: "C" or higher in COSM 60 and in 61L

Corequisite: COSM 71L

COSM majors only. Basic scientific theory of cells, anatomy, physiology, chemistry, nutrition, aging factors and health of the skin. Types of cosmetic surgery, aromatherapy, and working with physicians. Retailing, business ethics and services. (5 hrs. lect. per week)

# 7IL Advanced Esthetician Laboratory (5)

Prerequisites: "C" or higher in COSM 60 and in 61L

Corequisite: COSM 70

COSM majors only. Students engage in Advanced practice in esthetic services and treatments in a salon atmosphere. Enhanced procedures and skills are introduced for job placement. (15 hrs. lab per week)

# 80V Cosmetology Instructor Training (1–13)

Prerequisites: Valid Cosmetology license and one year cosmetology full-time work experience and meet all Hawai'i State Cosmetology Board Teacher Training requirements and ENG 20B & D & E OR ESL 11 & 13 & 17 OR placement in ENG 22/60

COSM majors only. Instructor Approval Required. The application of teaching principles in the area of cosmetology with the development of communication skills in theoretical and technical knowledge acquired from experience in the field of cosmetology. Techniques of individual and group instruction in laboratory and related classes; evaluation of various methods. Student may meet criteria to take Hawai'i State Cosmetology Board teacher's exam for license. Repeatable until 13 credits are earned. (40 hrs. per week lect./lab. maximum per week)

# 93V Cooperative Education (1-4)

Instructor approval required. COSM majors only. This course will provide the student with the opportunity to acquire on-the-job experience related to class-room and laboratory instruction in Cosmetology. Students may enroll up to 2 times for credit up to a maximum of 4 credits. (5 hrs. work experience per week per credit)

#### **DIESEL MECHANICS (DISL)**

(Course hours are expressed as total hours for a term.)

### 20 Technical Practices (2)

Prerequisite: ENG 20B & C & D OR ESL 11 & 13 & 17 OR placement in ENG 21/51

MATH 20B & C & D OR placement in MATH 50/53

DISL majors only. Classroom instruction and laboratory training in the identifcation, selection, safety procedures, use, and maintenance of protective hardware; lubricants and sealants; hand power tools; cleaning and lifting equipment; and precision measuring tools. The course also discusses hazardous waste. (60 hrs. lect./lab. per term)

### 22 R & R Components (3)

Prerequisite: DISL 20

DISL majors only. Classroom instruction and hands-on training in the safe and proper techniques for the removal and replacement of S-Cam brakes, spring brake chamber, diaphragm, and wedge brakes; differentials, transmissions, and clutch assemblies; axle shafts, wheel bearings, and wheels (tire and rim assembly); front and rear spring assemblies, spring center bolts; walking beams; torque arms; drive shafts; and batteries, starters, fan belts, headlight and stop light bulbs. Adjustment of brakes, clutches, torque arms, wheel bearings, fan belts, and headlights follows manufacturer's specifications. (90 hrs. lect./lab. per term)

### 24 Operator Orientation (2)

Prerequisite: DISL 20

DISL majors only. Classroom instruction and laboratory training in safely moving a diesel truck in and out of a work stall. Instruction includes pre-trip inspection procedures; use of mirrors, guide persons, monitor gauges; starting and stopping the engine; applying service and parking brakes; moving forward and backward in a straight line, stopping on command, and turning in a forward and backward direction. Training also includes hoisting, tilting, and stacking pallets with a forklift. This course develops some of the competencies required for a CDL license. (60 hrs. lect./lab. per term)

### 26 Basic Chassis Systems (2)

Prerequisites: DISL 20

DISL majors only. An overview of the mechanical, electrical, hydraulic, and air systems used on today's highway truck chassis. Through projects, the student demonstrates basic principles and laws governing systems associated with today's highway truck chassis. Instruction also includes the proper names and functions of major systems and components. The development of safe work habits is stressed throughout the course. (60 hrs. lect./lab. per term)

#### 28 Lubrication and Servicing (3)

Prerequisite: DISL 20

DISL majors only. Classroom instruction and laboratory training in changing oil and filters, checking lubricant levels, greasing chassis and pivot points, and repairing minor systems normally included in servicing (changing light bulbs and reflectors, inflating tires, etc.). Students use check list to check their work and to inspect the major systems on diesel trucks and equipment. Students also learn to complete job sheets for parts and materials, and services rendered and recommended. (90 hrs. lect./lab. per term)

#### 30 Differential Rebuilding (2)

nent manuals. (60 hrs. lect./lab. per term)

Prerequisite: DISL 20

DISL majors only. Classroom instruction and laboratory training covering the disassembly, inspection, identification, and adjustment of several different models of differentials. Specifically, work stations will include: single reduction, two speed planetary reduction, and double reduction and interaxle differentials. Course exit competencies will include the ability to: disassemble and assemble; inspect parts; set bearing preload, backlash, and endplay; identify tooth contact pattern; and check gear runout and torque fasteners. All of these tasks will be performed to the required manufacturer specifications as found in the compo-

# 32 Transmission Rebuilding (4)

Prerequisite: DISL 20

DISL majors only. Classroom instruction and laboratory training covering both standard (single and multiple countershaft) and automatic transmissions. Specifically, through the disassembly, inspection, assembly, and adjustment of transmissions, a foundation will be provided for an understanding of the operating principles, basic components, and proper rebuilding and trouble shooting methods for transmissions. (120 hrs. lect./lab. per term)

## 34 Brakes - Air and Hydraulic (3)

Prerequisite: DISL 20

DISL majors only. Classroom instruction and laboratory training covering air and hydraulic brake systems utilizing cutaways, training boards, components, and truck systems. Instruction in air brakes will include the assembly of a complete working system, followed by troubleshooting problems in the system. Also included will be proper brake adjustments and system testing, as well as repairs and safety when working with compressed air and spring brake chambers. Instruction in hydraulic brakes will include brake components, systems, troubleshooting and repairs, cutting drums and discs, and brake adjustments. (90 hrs. lect./lab. per term)

# 36 Suspension and Steering (3)

Prerequisite: DISL 20

DISL majors only. Classroom instruction and laboratory training in suspension and steering component names and functions; frame inspection and repair; alignment of all axles; proper jacking and support of frame; overhaul of steering gear box and king pins; inspection of springs and hangars; driveline angle; checking and adjustment to front end caster, camber, toe, height, and tire balance; KPI and centering of gear box. Laboratory instruction will also include the disassembly, inspection, assembly, and adjustment of actual truck suspension systems. (90 hrs. lect./lab. per term)

### 40 Diesel Engine Fundamentals (2)

Prerequisites: DISL 20 and MATH 50

DISL majors only. A basic introduction to the theory and operation of two and four cycle diesel engines. Instruction will include the assembly, maintenance, and repair of both type engines. Cooling systems, lubrication, air and exhaust systems, and the starting systems will also be covered. (60 hrs. lect./lab. per term)

### 42 Detroit Diesel Engines (3)

Prerequisite: DISL 40

DISL majors only. Instruction will center around the disassembly and reassembly of a complete Detroit diesel engine following shop manual procedures. Basic engine components such as blower, water pump, and fuel pump will also be covered. Completion of this course will provide a hands-on understanding of the internal components of a Detroit diesel engine. (90 hrs. lect./lab. per term)

### 44 Cummins Diesel Engines (3)

Prerequisite: DISL 40

DISL majors only. Instruction will center around the disassembly and reassembly of a complete Cummins diesel engine following shop manual procedures. Completion of this course will provide a hands-on understanding of the internal components of a Cummins diesel engine. (90 hrs. lect./lab. per term)

# 46 Caterpillar Diesel Engines (2)

Prerequisite: DISL 40

DISL majors only. Instruction will center around the disassembly and reassembly of a complete Caterpillar diesel engine following shop manual procedures. Completion of this course will provide a hands-on understanding of the internal components of a Caterpillar diesel engine. (60 hrs. lect./lab. per term)

### 48 International Diesel Engines (2)

Prerequisite: DISL 40

*DISL majors only.* Instruction will center around the disassembly and reassembly of a complete International diesel engine following shop manual procedures. Completion of this course will provide a hands-on understanding of the internal components of a International diesel engine. (60 hrs. lect./lab. per term)

# 52 Electrical Systems (3)

Prerequisite: DISL 20

Prerequisite or Corequisite: PHYS 56

DISL majors only. Classroom instruction and laboratory training covering the purpose, design, theory, and operating principles of electrical systems. Special emphasis will be placed on developing the skills required to test, service, and repair electrical components and associated systems. (90 hrs. lect./lab. per term)

# 54 Diesel Injection Systems (3)

Prerequisite: DISL 40

Prerequisite or Corequisite: PHYS 56

DISL majors only. Classroom instruction and laboratory training covering the purpose, theory, and operating principles of fuel injection systems. Special emphasis will be placed on developing the skills required to test, service, and repair fuel injection components and associated systems. (90 hrs. lect./lab. per term)

#### 56 Hydraulics (2)

Prerequisite: DISL 20

Prerequisite or Corequisite: PHYS 56

DISL majors only. Instruction beginning with the fundamental of hydraulic theory followed by instruction in the service, repair, and overhaul of the hydraulic circuits used on both stationary and mobile machinery. (60 hrs. lect./lab. per term)

#### 60 Diagnostics (4)

Prerequisites: DISL 20–28 and 30–36 and 40 and 52 and 54 and 56 DISL majors only. Instruction in heavy equipment systems including hydraulic, pneumatic, and special power systems. The theory, operation, troubleshooting, repair, and maintenance of heavy equipment systems will be covered in detail. (120 hrs. lect./lab. per term)

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

Instructor approval required. DISL majors only. This course will provide the student with the opportunity to acquire on-the-job experience related to classroom and laboratory instruction in Diesel Mechanics Technology. Students may enroll 4 times for credit up to a maximum of 12 credits. (5 hrs. work experience per week per credit)

# EAST ASIAN LANGUAGE AND LITERATURE (EALL)

# 271 Japanese Literature in Translation (Traditional) (3)

Prerequisite or Corequisite: ENG 22 or 60 OR placement in ENG 100

No knowledge of Japanese language is required.

Survey of traditional Japanese literature with emphasis on analysis and comparison. (3 hrs. lect. per week)

# 272 Japanese Literature in Translation (Modern) (3)

Prerequisite or Corequisite: ENG 22 or 60 OR placement in ENG 100

No knowledge of Japanese language is required.

Survey from mid-nineteenth century to the present. Major emphasis on fiction.

(3 hrs. lect. per week)

# **ECONOMICS (ECON)**

### 120 Introduction to Economics (3)

Prerequisites: ENG 22 or 60 OR placement in ENG 100; MATH 20E & F & G OR placement in MATH 25

A broad introduction to understanding the functioning of economic systems and the problems of national economic performance in the United States. The problems of resource allocation in a market economy are also considered. Maximum of 6 credits transferable to UH Manoa for any 2 of the following 3 courses: ECON 120, 130, 131. Note: This course does not satisfy requirements for Economics or Business majors at UH Manoa. (3 hrs. lect. per week)

### 130 Principles of Economics I: Microeconomics (3)

Prerequisites: ENG 22 or 60 OR placement in ENG 100; MATH 24 OR placement in MATH 25

Economic behavior of individuals and of business firms in a market economy. Analysis of how commodity and factor prices are determined. Examination of current problems in resource allocation. Maximum of 6 credits transferable to UH Manoa for any 2 of the following 3 courses: ECON 120, 130, 131. Note: This course satisfies requirements for Economics and Business majors at UH Manoa. (3 hrs. lect. per week)

### 131 Principles of Economics II: Macroeconomics (3)

Prerequisites: ENG 22 or 60 OR placement in ENG 100; MATH 24 OR placement in MATH 25

Recommended Preparation: ECON 120 or 130

Analysis of economic systems with emphasis on the forces determining levels and changes of national income in the U.S. economy. Describes basic economic institutions within the context of government policies concerning unemployment, inflation and growth. Maximum of 6 credits transferable to UH Manoa for any 2 of the following 3 courses: ECON 120, 130, 131. Note: This course satisfies requirements for Economics and Business majors at UH Manoa. (3 hrs. lect. per week)

### 211 Hawai'i's Economy (3)

Prerequisite: ENG 22 or 60 OR placement in ENG 100

Recommended preparation: ECON 120

Examination of the major economic trends in Hawai'i since the coming of the Polynesians to the current period. Coverage of key institutions and economic relationships, and key forces causing change. Discussion of relationship between economic system and political or social problems. (3 hrs. lect. per week)

# **EDUCATION (ED)**

# 105 Introduction to Early Childhood Education (3)

Prerequisite or Corequisite: ENG 22 or 60 OR placement in ENG 100

A basic introductory course which explores historical roots and fundamental principles in early childhood, variety and scope of programs in the community, issues confronting the field, career options. May be taken on a CR/N basis. (3 hrs. lect. per week)

# 110 Developmentally Appropriate Practices (3)

Prerequisite or Corequisite: ENG 22 or 60 OR placement in ENG 100 An overview of basic awareness, knowledge and skills necessary for working with children birth through age eight. May be taken on a CR/N basis. (3 hrs. lect. per week)

# 127 Issues in Diversity (3)

Recommended Preparation: ENG 22/60

This course compares and analyzes the dynamic interaction of race, culture, gender and class as it relates to the education of children from diverse populations. Students contrast cultural and historical perspectives of various groups to increase knowledge, attitudes and skills necessary to educate children in a multicultural and pluralistic society. Barriers that interfere with working effectively with diverse families or groups are addressed. (3 hrs. lect. per week)

# 131 Early Childhood Development: Theory into Practice (3)

Prerequisite or Corequisite: ENG 22 or 60 OR placement in ENG 100

Principles of development from conception through early childhood. Focus on the interrelation of physical, cognitive, emotional and social aspects of the individual during this period and how this information about development affects one's expectations and relationship to the individual child. May be taken on a CR/N basis. (3 hrs. lect. per week)

# 140 Guiding Young Children in Group Settings (3)

Prerequisite: ED 131

Prerequisite or Corequisite: ENG 22 or 60 OR placement in ENG 100

Basic course addressing positive ways to support children's social-emotional development from birth to age eight. Focus on adult-child and child-child interactions and relationships. May be taken on a CR/N basis. (3 hrs. lect. per week)

# 151 Practicum Seminar (1)

Prerequisite: ED 196 and 196L and (ED 131 or FAMR 231)

Prerequisite or Corequisite: ENG 22 or 60 OR placement in ENG 100

Corequisite: ED 191V

Seminar to accompany practicum in early childhood ED 191V. Designed to give students an opportunity to discuss their development as caring, competent early childhood professionals, and the challenges of the work setting. May be repeated. Students must be concurrently enrolled in ED 191V. (1 hr. lect. per week)

# 155 Creative Art for Young Children (3)

Prerequisite: ED 110

Prerequisite or Corequisite: ENG 22 or 60 OR placement in ENG 100

Introduces students to principles and practices in providing appropriate art experiences in early childhood settings. Includes selection and use of developmentally appropriate art activities; integrating creative art into a well-planned program; instruction in simple art techniques; ways to introduce aesthetic experiences; planning and teaching; and adaptations to meet the needs of indi-viduals. May be taken on a CR/N basis. (3 hrs. lect. per week)

# 156 Music and Movement for Young Children (3)

Prerequisite: ED 110

Prerequisite or Corequisite: ENG 22 or 60 OR placement in ENG 100 Introduces students to principles and practices in providing appropriate music and movement experiences in early childhood settings. Includes selection and use of developmentally appropriate songs and activities; use of instruments with children; instruction in playing simple autoharp, guitar, or ukulele; uses of live and recorded music; planning and evaluating teaching; and adaptations to meet needs of individuals. May be taken on a CR/N basis. (3 hrs. lect. per week)

# 157 Puppetry for Young Children (3)

Prerequisite: Ed 110

Prerequisite or Corequisite: ENG 22 or 60 OR placement in ENG 100 Introduces making and using puppets with children for curriculum enhancement and promotion of children's skills in language and literacy, reasoning, problem solving, and expression of feelings. Includes designing meaningful puppetry activities and evaluating those activities when implemented. (3 hrs. lect. per week)

### 158 Hawaiiana for Young Children (3)

Prerequisite: ED 110

Prerequisite or Corequisite: ENG 22 or 60 OR placement in ENG 100

This course gives an overview of the different aspects of the culture of Hawai'i that can be brought into the preschool classroom. Students will explore and study these aspects through hands-on experiences. They will then develop appropriate activities and experiences for young children. May be taken on a CR/N basis. (3 hrs. lect per week)

#### 170 Introduction to Working with Infants and Toddlers (3)

Prerequisite or Corequisite: ENG 22 or 60 OR placement in ENG 100 Overview to basic skills in working with infants and toddlers in groups. Focus on interactive aspects of child development, infant-toddler caregiving routines & environments, caregiver roles, ways to enrich experiences and to promote strong relationships with families. May be taken on a CR/N basis. (3 hrs. lect. per week)

# 191V Practicum in Early Childhood (1-3)

Prerequisites: ED 196 and 196L and (ED 131 or FAMR 231)

Prerequisite or Corequisite: ED 151 and ENG 22 or 60 OR placement in ENG 100 Supervised work experience. Individualized in-service training in early child-hood programs. May be repeated until 3 credits are earned. Responsibilities to increase with each repeat. (5 - 15 hrs. practicum per week per credit)

# 196 Beginning Child Development Lab Seminar (1)

Prerequisite or Corequisite: ED 110 and (ENG 22 or 60 OR placement in ENG 100)

Corequisite: ED 196L

Seminar courses designed to provide an opportunity for students to discuss best practices in education and care settings for young children and in their participation in the child development lab. Students must be concurrently enrolled in Beginning Child Development Lab (ED 196L). Satisfactory criminal record history check required to pass this course. May be taken on a CR/N basis. (1 hr. lect. per week)

# 196L Beginning Child Development Laboratory (1)

Prerequisite or Corequisite: ED 110 and (ENG 22 or 60 OR placement in ENG 100)

Corequisite: ED 196

Instructor approval required. Supervised practicum in campus child development lab. A variety of on-the-job experiences working with children ages 0-8 years. The students are expected to continually increase their level of achievement working with children and adults. Satisfactory criminal record history check required to pass this course. May be taken on a CR/N basis. (3 hrs. lab. per week)

# 215 Healthy Young Children (3)

Prerequisite: ED 131 or FAMR 231 AND "C" or higher in ENG 22 or 60 OR placement in ENG 100

Basic course which provides student with essential elements of health, safety and nutrition for the young child. Application to group settings as well as individual child. May be taken on a CR/N basis. (3 hrs. lect. per week)

# 220 Teaching Language Skills (Early Childhood Education) (3)

Prerequisite: ENG 22 or 60 OR placement in ENG 100

Deals with teaching language skills in an integrated way. Includes listening, oral language, written language; pre-reading and reading at preschool, kindergarten and primary levels. (3 hrs. lect. per week)

### 234 Observation and Assessment (2)

Prerequisites: ED 105 and ED 131 and "C" or higher in ENG 22 or 60 OR placement in ENG 100

Advanced skills in methods of observing & recording behavior and assessing children. May be taken on a CR/N basis. (2 hrs. lect. per week)

### 245 Child, Family and Community (3)

Prerequisites: ED 105 and (ENG 22 or 60 OR placement in ENG 100)

Central focus is on developing skills for establishing effective relationships between the early childhood professional and families of the children with whom the professional is working. (3 hrs. lect. per week)

### 261 Preschool Curriculum I (3)

Prerequisites: ED 110 and ED 196 and ED 196L and "C" or higher in ENG 22 or 60 OR placement in ENG 100

Theoretical base from which to design, plan, implement, and evaluate experiences and activities that enhance the physical and creative development of preschool age children. May be taken on a CR/N basis. (3 hrs. lect. per week)

### 262 Preschool Curriculum II (3)

Prerequisites: ED 110 and ED 196 and ED 196L and "C" or higher in ENG 22 or 60 OR placement in ENG 100

Theoretical base from which to design, plan, implement, and evaluate experiences and activities that enhance communication and cognitive skills development in preschool age children. May be taken on a CR/N basis. (3 hrs. lect. per week)

### 265 Introduction to Children's Literature (3)

Prerequisite: ENG 22 or 60 OR placement in ENG 100

Introduces the student to a variety of children's books and methods of presenting stories, writing stories, and program planning. Emphasis is on presentation skills. May be taken on a CR/N basis. (3 hrs. lect. per week)

### 269 Integrated Curriculum in Early Education (3)

Prerequisites: ED 261 or ED 262 and "C" or higher in ENG 22 or 60 OR place-

ment in ENG 100

Corequisite: ED 261 or ED 262

Foundations and practice in designing, planning, implementing and evaluating integrated curriculum for preschool and young primary children. This course also includes an introduction to the social studies curriculum. (3 hrs. lect. per week)

# 270 Prenatal and Perinatal Development (2)

Prerequisites: ED 196 and 196L and 170 and (ED 131 or FAMR 231) and ENG 22 or 60 OR placement in ENG 100

Physical development and psychological changes during pregnancy and the first weeks of life are examined. The emphasis is on total family unit and the stresses it faces from personal, cultural, and societal perspectives. May be taken on a CR/N basis. (2 hrs. lect. per week)

# 274 Infant-Toddler Environments and Relationships (3)

Prerequisites: ED 170 and "C" or higher in ENG 22 or 60 OR placement in ENG 100

Recommended Prep: ENG 100

This course prepares students for leadership roles working with groups of infant and toddler age children in a variety of settings. The skills necessary to be a lead caregiver or teacher are emphasized. Components and practices of quality care, family-friendly communication and topical work place issues are addressed. (3 hrs. lect. per week)

### 275 Including Children with Special Needs (3)

Prerequisite: ED 131

This is an introductory course which gives an overview of the awareness, knowledge and skills needed to work with young children with special needs in full inclusion settings. (3 hrs. lect. per week)

# 296B Infant-Toddler Seminar (2)

Prerequisites: ED 196 and ED 196L and ED 170 and (ED 131 or FAMR 231) and "C" or higher in ENG 22 or 60 OR placement in ENG 100 AND ED 274 Corequisite: ED 296I AND ED 274

Seminar to accompany Advanced Child Development Lab for Infants/Toddlers. Designed to give students an opportunity to integrate knowledge and skills developed in prior and concurrent courses. May be taken on a CR/N basis. (2 hr. lect. per week)

## 296C Preschool Seminar (2)

Prerequisite: ED 196 and 196L and (ED 261 or 262) and (ED 131 or FAMR 231) and ED 234 and ("C" or higher in ENG 22 or 60 OR placement in ENG 100) Prerequisite or Corequisite: ED 234 and ED 296P and (ED 261 or 262)

Final integrative seminar in curriculum sequence to be taken concurrently with the Preschool Child Development Laboratory course. Knowledge and skills developed in prior curriculum and other early childhood courses utilized to plan and implement and to integrate in-the-lab learning with classroom learning. May be taken on a CR/N basis. (2 hrs. lect. per week)

# 296l Infant-Toddler Laboratory (2)

Prerequisite: ED 196 and ED 196L and ED 170 and (ED 131 or FAMR 231) and "C" or higher in ENG 22 or 60 OR placement in ENG 100 AND ED 274

Corequisite: ED 296B AND ED 274

Instructor approval required. Supervised practicum in campus infant-toddler child development lab. A variety of on-the-job experiences working with children ages 0–3. Students are expected to increase their level of achievement to planning/implementing a full-day program. (6 hrs. lab. per week)

# 296P Preschool Laboratory (2)

Prerequisites: ED 196 and ED196L and (ED 261 OR 262) and (ED 131 or FAMR 231) and ED 234 and ("C" or higher in ENG 22 or 60 OR placement in ENG 100)

Prerequisite or Corequisite: ED 234 and ED 296C and (ED 261 or 262) Instructor approval required. Supervised practicum in campus child development lab. A variety of on-the-job experiences working with children ages 0–5. Students are expected to continually increase their level of achievement to planning/implementing a full day program. May be taken on a CR/N basis. (6 hrs. lab. per week)

# **ELECTRICAL ENGINEERING (EE)**

# 101 Electrical Engineering Skills (3)

Electrical engineering subjects in a skill acquisition context at the freshman level. Learning, creative problem solving, brainstorming, technical information assimilation, and presentation skills development. (3 hrs. lect. per week)

# 150 Introductory Computer Programming Methods (3)

Prerequisite or Corequisite: MATH 206

Recommended for science/pre-engineering students. Introductory course in computer programming. Emphasis is on planning, writing, debugging of programs together with basic applications. May be taken on a CR/N basis. (3 hrs. lect. per week)

# 211 Basic Circuit Analysis (4)

Prerequisites or Corequisites: (Math 231 OR placement in MATH 232) AND Physics 272

Linear circuits, time-domain analysis, transient and steady-state responses, phasors, impedance and admittance; network or system functions, frequency response and filtering, resonance. (3 hrs. lect.; 3 hrs. lab. per week)

#### 213 Basic Lab Measurements & Techniques (4)

Prerequisites: "C" or higher in EE 211 Prerequisite or Corequisite: Math 232

This is the second semester course in circuit analysis. It incorporates lecture and a lab to cover topics in advanced circuit analysis and in measuring instruments and techniques. (3 hrs. lect; 3 hrs. lab. per week)

#### 260 Introduction to Digital Design (4)

Prerequisites: EE 150

Introduction to the design of digital systems with an emphasis on design methods and the implementation and use of fundamental digital components. The "top-down design" paradigm for sequential and state machine circuits will be introduced along with computer-aided design (CAD) tools. (3 hrs. lect., 3 hrs. lab per week)

### **ELECTRICITY (EIMT)**

# 30 Electrical Installation Theory I (4)

Prerequisites: ENG 20B & C & D & E OR "C" or higher in ESL 11 & 13 & 17 OR

placement in ENG 22/60

MATH 20B & C & D OR placement in MATH 53

Corequisite: EIMT 32

*EIMT majors only.* This course is designed to develop knowledge of basic and advanced residential wiring with emphasis on the National Electrical Code and the principles of residential blueprint reading. (5 hrs. lect. per week)

### 30B Electrical Installation Theory I-B (2)

Prerequisites: ENG 20B & C & D & E OR "C" or higher in ESL 11 & 13 & 17 OR

placement in ENG 22/60

MATH 20B & C & D OR placement in MATH 53

Coreguisites: EIMT 32B, EIMT 30B and 32B must be taken together

EIMT majors only. This course is designed to develop knowledge of basic residential wiring. Emphasis is on the National Electrical Code and the principles of basic residential blueprint reading. (2 hrs. lect. per week)

## 30C Electrical Installation Theory I-C (2)

Prerequisites: "C" EIMT 30B and in EIMT 32B

Corequisites: EIMT 32C

EIMT majors only. This course is designed to develop knowledge of advanced residential wiring. Emphasis is on the National Electrical Code and the principle of advanced residential blueprint reading. (2 hrs. lect. per week)

### 32 Electrical Installation I (6)

Prerequisites: ENG 20B & C & D & E OR "C" or higher in ESL 11 & 13 & 17 OR

placement in ENG 22/60

MATH 20B & C & D OR placement in MATH 53

Coreauisite: EIMT 30

EIMT majors only. This course is designed to provide the basic and advanced knowledge in residential wiring techniques. Laboratory exercises are designed to give students practical experience in different wiring techniques. (18 hrs. lab. per week)

### 32B Electrical Installation I-B (3)

Prerequisites: ENG 20B & C & D & E OR "C" or higher in ESL 11 & 13 & 17 OR

placement in ENG 22/60

MATH 20B & C & D OR placement in MATH 53

Corequisites: EIMT 30B and EIMT 32B must be taken together.

This course is designed to provide basic knowledge in residential wiring techniques. Laboratory exercises are designed to give students practical experience in different wiring techniques, using non-metallic sheathed cable. (9 hrs. lab. per week)

### 32C Electrical Installation I-C (3)

Prerequisites: "C" in EIMT 30B and in EIMT 32B

Corequisites: EIMT 30C

*EIMT majors only.* This course is designed to provide advanced knowledge in residential wiring techniques. Laboratory exercises are designed to give students practical experience in different wiring techniques used to maintain, troubleshoot and repair all residential wiring circuits. (9 hrs. lab. per week)

# 40 Electrical Installation Theory II (4)

Prerequisites: "C" in EIMT 50 and in 52

Corequisite: EIMT 42

EIMT majors only. This course will take the student into the more complex commercial and industrial wiring techniques with emphasis on the National Electrical Code and the principles of commercial and industrial blueprint reading. (5 hrs. lect. per week)

# 42 Electrical Installation II (6)

Prerequisites: "C" in EIMT 50 and in 52

Corequisite: EIMT 40

EIMT majors only. A course designed to advance the student to a higher level of electrical installation skills. This course will take the student into the more complex commercial and industrial wiring techniques. (18 hrs. lab. per week)

## 44 AC/DC Systems and Equipment (4)

Prerequisites: "C" in EIMT 30 and in 32

Corequisite: EIMT 46

EIMT majors only. This course is designed to advance the student into electrical principles of direct-current and alternating-current circuits and equipment. Emphasis is placed on the theory, operating characteristics and control of AC and DC machinery. (5 hrs. lect. per week)

# 44B AC/DC Systems and Equipment I (2)

Prerequisites: "C" in EIMT 30C and in 32C OR in EIMT 30 and in 32

Corequisite: EIMT 46B

EIMT majors only. This course covers the construction and theory of operation of AC and DC rotating machinery. The course also presents a wide range of study on the installation, maintenance, service, and repair or electrical equipment. (2 hrs. lect. per week)

#### 46 Electrical Maintenance & Repair (6)

Prerequisites: "C" in EIMT 30 and in 32

Corequisite: EIMT 44

EIMT majors only. This course consists of supervised lab activities combining trade practices and related technical instruction to provide the most effective means of developing the student's mechanical, manipulative, and troubleshooting skills. Emphasis is placed on methods of installation, maintenance, troubleshooting and repair of electrical machinery and related control equipment. (18 hrs. lab. per week)

#### 46B Electrical Maintenance & Repair I (3)

Prerequisites: "C" in EIMT 30C and in 32C OR in EIMT 30 and in 32

Corequisite: EIMT 44B

EIMT majors only. This course consists of supervised lab activities that combine trade practices and related technical information necessary to install, maintain, troubleshoot and repair rotating electrical equipment. (9 hrs. lab. per week)

#### 50 Solid State Control (4)

Prerequisites: "C" in EIMT 44 and in 46

Corequisites: EIMT 52

EIMT majors only. This is a course designed to introduce students to the principles and application of solid state control. The topics to be covered include the fundamentals of solid state devices; digital logic; solid state fire alarm and security systems; solid state motor control; programmable controllers. (5 hrs. lect. per week)

### 52 Solid State Control Lab (6)

Prerequisites: "C" in ELEC 44 and in 46

Corequisites: ELEC 50

EIMT majors only. This is a lab course designed to give students a working knowledge and hands on experience with solid state control devices and systems. Students will learn how to install, maintain, troubleshoot, and repair a variety of solid state components and systems. (18 hrs. lab. per week)

## 93V Cooperative Education (1-4)

Instructor approval required. EIMT majors only. This course will provide the student with the opportunity to acquire on-the-job experience related to classroom and laboratory instruction in Electricity. Students may enroll 4 times for credit up to a maximum of 12 credits. (5 hrs. work experience per week per credit)

### **ENGLISH (ENG)**

### 20 Introduction to Communication Skills (3)

The focus of this course is to prepare students to enter ENG 20B, C, D, and E with a foundation in reading, writing, speaking and listening skills relevant to their programs. Graded on a CR/N basis.

# 20B Basic Direction Skills (1)

Prerequisites: ENG 20 OR placement in ENG 20B/C/D/E

Foundation in reading, writing, speaking and problem-solving skills relevant to entry into Liberal Arts and Technical-Occupational programs. Enrollment in 1-4 credits, depending on one's areas of need. Graded on a CR/N basis. (2-8 hrs. class-lab. per week)

#### 20C Consumer-Service Skills (1)

Prerequisites: ENG 20 OR placement in ENG 20B/C/D/E

Foundation in reading, writing, speaking and problem-solving skills relevant to entry into Liberal Arts and Technical-Occupational programs. Enrollment in 1-4 credits, depending on one's areas of need. Graded on a CR/N basis. (2-8 hrs. class-lab. per week)

#### 20D Data-Processing Skills (1)

Prerequisites: ENG 20 OR placement in ENG 20B/C/D/E

Foundation in reading, writing, speaking and problem-solving skills relevant to entry into Liberal Arts and Technical-Occupational programs. Enrollment in 1-4 credits, depending on one's areas of need. Graded on a CR/N basis. (2-8 hrs. class-lab. per week)

#### 20E English Reading Skills (1)

Prerequisites: ENG 20 OR placement in ENG 20B/C/D/E

Foundation in reading, writing, speaking and problem-solving skills relevant to entry into Liberal Arts and Technical-Occupational programs. Enrollment in 1-4 credits, depending on one's areas of need (2-8 hrs. class-lab. per week)

# 21 Developmental Reading (3)

Prerequisite: ENG 20B & C & D & E OR "C" or higher in ESL 11 & 13 & 17 OR placement in ENG 21/51

Designed to develop reading skills needed for college level reading. Emphasis is on vocabulary and comprehension of expository reading material. Study skills needed for effective reading are handled. (3 hrs. lect. per week)

# 22 Introduction to Expository Writing (3)

Prerequisite: ENG 20B & C & D & E OR "C" or higher in ESL 11 & 13 & 17 OR placement in ENG 22

Intensive study of structure, usage, and vocabulary of English as a necessary prelude to effective writing. Emphasis is placed on the development of the paragraph to communicate ideas in short papers. Students are encouraged to exercise critical thinking and clear, correct language in their written communications. (3 hrs. lect. per week)

# 51 Technical Reading (3)

Prerequisite: ENG 20B & C & D & E OR "C" or higher in ESL 11 & 13 & 17 OR placement in ENG 22

Designed to develop reading skills needed for college level reading. Emphasis is on vocabulary and comprehension of technical reading material. Study skills needed for effective reading are handled. (3 hrs. lect. per week)

# 60 Technical Writing (3)

Prerequisite: ENG 20B & C & D & E OR "C" or higher in ESL 11 & 13 & 17 OR placement in ENG 22

Study of effective ways of writing straightforward paragraphs of technical information. Emphasis is placed on writing technical information clearly, concisely, accurately and precisely. Includes units on using visuals for clear written communication. (3 hrs. lect. per week)

# 100 Composition I (3)

Prerequisite: "C" or higher in ENG 22 or in 60 OR placement in ENG 100 Introduction to the rhetorical, conceptual, and stylistic demands of writing at the college level; instruction in the composing process, search strategies, and writing from sources. (3 hrs. lect. per week)

#### 102 College Reading Skills (3)

Prerequisite: "C" or higher in ENG 21 or in 51 OR placement in ENG 100 Improvement in college and adult level reading with emphasis on increasing reading rate and comprehension through techniques of phrase reading, skimming, and vocabulary development. (3 hrs. lect. per week)

### 120 Advanced Technical Writing (3)

Prerequisite: "C" or higher in ENG 22 or in 60 OR placement in ENG 100 Practice in representative forms of technical writing: proposals, progress reports, letters, memos, resumes; collaborative research with technical instructors in the student's technology. Identification of audience, correct use of language, and appropriate use of visuals will also be stressed, with emphasis on computer and library skills. (3 hrs. lect. per week)

### 201 Creative Writinhq (3)

Prerequisite: "C" or higher in ENG 100

Practice in writing poems and short stories and includes creative writing assignments, disucssion of professional works, and discussion of each student's writing.(3 hrs. lect. per week)

#### 209 Business and Managerial Writing (3)

Prerequisite: "C" or higher in ENG 100 OR placement in ENG 209–260 A study of business and managerial writing; practice in writing letters, memos, procedures and reports, including a recommendation report requiring research, problem definition and solution proposals. (3 hrs. lect. per week)

### 210 Writing Term Papers (3)

Prerequisite: "C" or higher in ENG 100 OR placement in ENG 209–260 Practice in the skills needed in writing research papers and "term" papers: methods of gathering and evaluating primary and secondary evidence and of presenting arguments in convincing and logical expository prose. (3 hrs. lect. per week)

### 250 American Literature (3)

Prerequisite: "C" or higher in ENG 100 OR placement in ENG 209–260 A study and analysis of major works of American literature with equal emphasis placed upon works created before and after 1900. Novels, short stories, poems, and modern drama are studied. (3 hrs. lect. per week)

## 251 British Literature to 1800 (3)

Prerequisite: "C" or higher in ENG 100 OR placement in ENG 209-260 Study of major British works from the Middle Ages to 1800. (3 hrs. lect. per week)

# 252 British Literature after 1800 (3)

Prerequisite: "C" or higher in ENG 100 OR placement in ENG 209–260 Study of major British works from 1800 to the present. (3 hrs. lect. per week)

### 253 World Literature to 1600 (3)

Prerequisite: "C" or higher in ENG 100 OR placement in ENG 209–260 Study of representative works of Classical, Oriental, and European literature from ancient times to the 17th century. (3 hrs. lect. per week)

# 254 World Literature after 1600 (3)

Prerequisite: "C" or higher in ENG 100 OR placement in ENG 209–260 Study of representative works of Oriental, European, and American literature from 1600 to present. (3 hrs. lect. per week)

# 255 Short Story & Novel (3)

Prerequisite: "C" or higher in ENG 100 OR placement in ENG 209-260 Study and criticism of short stories and novels and how they are created. (3 hrs. lect. per week)

# 256 Poetry & Drama (3)

Prerequisite: "C" or higher in ENG 100 OR placement in ENG 209–260 Study and criticism of drama, biography, and poetry, their evolution and form. (3 hrs. lect. per week)

### 257 Themes in Literature (Alpha)

Selected themes in major works of various types, cultures, periods. Requires a minimum of 3,000 words of writing. Repeatable once only.

### 257F Women in Literature (3)

Prerequisite: "C" or higher in ENG 100 OR placement in ENG 209–260 A thematic study of women in literature. Readings from various types of literature: novels, plays, short stories, and poetry. Focuses include women in various cultures, traditional myths and roles of women, contemporary alternatives, and famous women writers. (3 hrs. lect. per week)

# 257M Cross-Cultural Perspectives in Asian/Pacific Literature (3)

Prerequisite: "C" of higher in ENG 100 OR placement in ENG 209-260 Although stereotypes of both Asian and Pacific Islanders have existed through history, writers in English in both groups have emerged to tell their stories, battling misconceptions. The course studies and analyzes Asian and Pacific writers who deal with issues like colonialism, immigration, and marginalism. The works will be read as pieces of literatures while carefully considering their poetic and narrative forms. (3 hrs. lect. per week)

### 257P Literature and the Sea (3)

Prerequisite: "C" or higher in ENG 100 OR placement in ENG 209-260

This course examines how the sea functions as a physical, philosophical, and psychological setting. Through close textual analysis, the course explores the symbolic power of the ocean: what does our tropological understanding of the sea reveal about humanity? Is the sea a metaphor for predominantly feminine or masculine imagery? How do descriptions of the sea change according to culture and economic system? (3 hrs. lect. per week)

# 257X Literature and Technology (3)

Prerequisite: "C" or higher in ENG 100 OR placement in ENG 209-260

This course explores the interplay of science, technology, and literature and examines the authors' world views, philosophical and religious thought and the impact of science and technology on life, art, and the imagination. How these works resist potential dehumanizing aspects of technology and how technological development can encroach upon identity will be discussed. (3 hrs. lect. per week)

# **ENGLISH AS A SECOND LANGUAGE (ESL)**

Note: Non-credit introduction to College English (ICE) courses are also available.

# 1 College Listening/Speaking Skills (3)

Prerequisites: ICE 6 OR placement in ESL 1

Corequisites: ESL 3 and 4 and 7

This is the first-level listening/speaking course that is required of all students. It will include the teaching and practice of listening/speaking skills that students will need in academic and workplace settings. (3 hrs. lect. per week)

# 3 College Reading/Writing Skills (9)

Prerequisites: ICE 6 OR placement in ESL 3

Corequisites: ESL 1 and 4 and 7

This course will provide the student with a foundation in reading and writing skills necessary to succeed in subsequent English, liberal arts, and technical/occupational courses. There are two components to this class: students will read authentic pieces of writing, written for native speakers of English, and will focus on vocabulary development and comprehension. Writing assignments based on the readings will also be done. (9 hrs. lect per week)

#### 4 Grammar I (3)

Prerequisite: Placement in ESL 4 or instructor approval

Corequisite: ESL 1 and 3 and 7

This course is a study and practice of high-beginning to intermediate grammar. It will provide students with a solid foundation in grammar to succeed in subsequent English and liberal arts courses. (3 hrs. lect. per week)

#### 7 Introduction to Computers and Internet for ESL (3)

Prerequisite: ICE 6

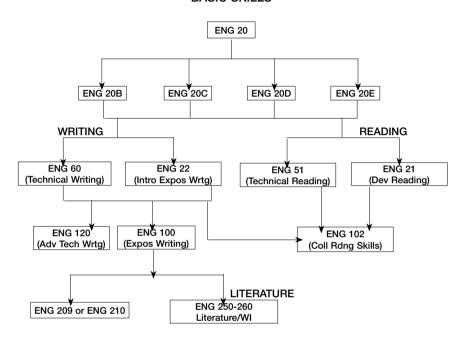
Corequisite: ESL 1 and 3 and 4

This course is designed to provide th ESL student with a foundation in basic computer literacy, wordprocessing, and Internet skills to succeed in subsequent courses at HCC (e.g., ENG 100, ICS 100). (3 hrs. lab. per week)

# **English Sequence**

Enter English at level determined by Placement Test or courses taken at HCC or transferred.

# **BASIC SKILLS**



"CR" grade required in ELI/ENG 20, 20B, 20C, 20D, 20E to progress.
"C" grade or higher required in other ESL/ENG to progress.

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# 11 College Listening Speaking Skills II (3)

Prerequisite: ESL 1

Coreauisites: ESL 13 and 17

Provides practice in the English listening speaking skills necessary to succeed in subsequent liberal arts and technical/occupational courses. Also provides the chance to combine critical thinking with practical experience as students make an active contribution to their community in service learning projects. (3) hrs. lect. per week)

# 13 College Reading/Writing Skills II (9)

Prerequisites: "C" or higher in ESL 3 OR placement in ESL 13

Corequisite: ESL 11 and 17

This course will provide the student with advanced reading and writing skills necessary to succeed in subsequent English, liberal arts, and technical/ occupational courses. There are two components to this class: students will read authentic pieces of writing, written for native speakers of English, and will focus on vocabulary development and comprehension. Writing assignments based on the readings will also be done. (9 hrs. lect. per week)

### 17 Computers and Internet for ESL Academic Purposes (3)

Prerequisite: "C" or higher in ESL 7

Corequisite: ESL 11 and 13

ESL 17 is a multi-purpose class covering reading, vocabulary development, writing, listening, and speaking using content-based materials that relate to computers and their use with three computer programs: word processing, an Internet browser, and e-mail. Extensive classroom English study is combined with out-of-class assignments that provide hands-on experience in using computers. (3 hrs. lect. per week)

# **ENGLISH LANGUAGE INSTITUTE (ELI)**

#### 1 TV-Listening Comprehension and Vocabulary Development I (3)

This course is a telecourse designed to help high beginning/intermediate ESL students improve listening comprehension and vocabulary skills. Students view videotapes from CROSSROADS CAFE (units 1-13) and do exercises in workbooks written to match the videotapes. Other drills/exercises are assigned. Graded on a CR/N basis. (3 hrs. lect. per week)

# 2 TV-Listening Comprehension and Vocabulary Development II (3)

This course is a telecourse designed to help high beginning/intermediate ESL students improve listening comprehension and vocabulary skills. Students view videotapes from CROSSROADS CAFE (units 14-26) and do exercises in workbooks written to match the videotapes. Other drills/exercises are assigned. Graded on a CR/N basis. (3 hrs. lect. per week)

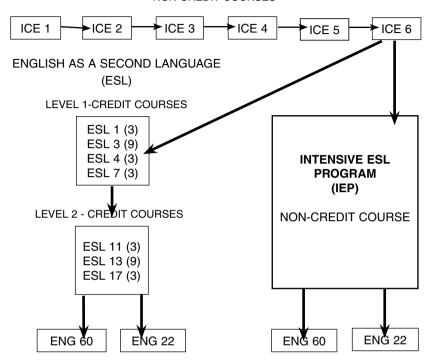
### 3 TV-Listening Comprehension and Vocabulary Development III (3)

This course is a telecourse designed to help high beginning/intermediate ESL students improve listening comprehension and vocabulary skills. Students view videotapes from CONNECT WITH ENGLISH (UNITS 1-24) and do exercises in workbooks written to match the videotapes. Other drills/exercises are assigned. Graded on a CR/N basis. (3 hrs. lect. per week)

# **ENGLISH FOR NON-NATIVE SPEAKERS**

# INTRODUCTION TO COLLEGE ENGLISH (ICE)

#### NON-CREDIT COURSES



### **ELECTIVE COURSES**

#### **CREDIT COURSES**

| ELI 11 (3) | ELI 2 <sup>2</sup> (3) | ELI 3 <sup>3</sup> (3) | ELI 44 (3) |
|------------|------------------------|------------------------|------------|
|------------|------------------------|------------------------|------------|

<sup>&</sup>lt;sup>1</sup>Listening Comprehension and Vocabulary Development I (telecourse - CROSSROADS CAFE)

CR grade needed in ELI to progress.

<sup>&</sup>lt;sup>2</sup>Listening Comprehension and Vocabulary Development II (telecourse - CROSSROADS CAFE)

<sup>&</sup>lt;sup>3</sup>Listening Comprehension and Vocabulary Development III (telecourse - CONNECT WITH ENGLISH)

<sup>&</sup>lt;sup>4</sup>Listening Comprehension and Vocabulary Development IV (telecourse - CONNECT WITH ENGLISH)

<sup>&</sup>quot;C" grade or higher required in ESL to progress.

# 4 TV-Listening Comprehension and Vocabulary Development IV (3)

This course is a telecourse designed to help high beginning/intermediate ESL students improve listening comprehension and vocabulary skills. Students view videotapes from CONNECT WITH ENGLISH (units 25-48) and do exercises in workbooks written to match the videotapes. Other drills/exercises are assigned. Graded on a CR/N basis. (3 hrs. lect. per week)

## FAMILY RESOURCES (FAMR)

#### 100 Personal and Professional Development (3)

Prerequisite: ENG 20B & C & D & E OR ESL 11 &13 & 17 OR placement in ENG 22/60

Intended for college students of any age who wish to expand their self-awareness and explore choices available. Topics include personal style of learning, challenges of adulthood, and clarity in education/career goals. May be taken on a CR/N basis. (3 hrs. lect. per week)

# 100A Personal and Professional Development (1)

Prerequisite: ENG 20B & C & D & E OR ESL 11 & 13 & 17 OR placement in ENG 22/60

This course is designed to learn about the specific requirements of the CENT program including the different options within CENT, to survey the IT industry in terms of job opportunities, to perform job site visitations, to provide information about succeeding in college, and to gain knowledge about job seeking skills such as filling out application forms, writing resumes, and interviewing techniques. (1 hr. lect. per week)

#### 133 Dynamics of Family Violence (3)

Recommended preparation: ENG 22 or 60 OR placement in ENG 100

Overview on family violence which includes physical and sexual abuse of children, spouse assault, violence between siblings, abuse of the disabled, physical abuse and neglect as well as financial abuse of the elderly. Cultural/political trends to "criminalize" family violence. (3 hrs. lect. per week)

#### 141 Parenting (3)

Prerequisite: ENG 20B & C & D & E OR ESL 11 & 13 & 17 OR placement in ENG 22/60

Parenting theories, methods, skills, issues, and resources; parent-child relations over the life span and in various family and cultural contexts. May be taken on a CR/N basis (3 hrs. lect. per week)

#### 230 Human Development (3)

Prerequisite: ENG 22 or 60 OR placement in ENG 100

Concepts, issues, and theories of human growth and of development from conception to death and systems approach to inquiry into factors affecting growth and development (3 hrs. lect. per week)

#### 231 Human Development I (3)

Prerequisite: ENG 22 or 60 OR placement in ENG 100

Principles of development from conception to puberty. Focus on the interrelation of physical, cognitive, and social-emotional aspects of the individual during this period. (3 hrs. lect. per week)

# 232 Human Development II (3)

Prerequisite: ENG 22 or 60 OR placement in ENG 100

Principles of development from puberty to death. Focus on the interrelation of physical, cognitive, and social-emotional aspects of the individual during this period. FAMR 231 and FAMR 232 need not be taken in sequence. (3 hrs. lect. per week)

### 244 Aging (3)

Prerequisite: ENG 22 OR 60 OR placement in ENG 100

Basic course in study of developmental process and problems of aging. Students will be guided to look at aging from a systems approach. Sociologuical, biological, and cognitive development of the aging individual will be discussed. (3 hrs. lect. per week)

### 296 Working with People (3)

Recommended Preparation: ENG 22 or 60 OR placement in ENG 100

Focuses on knowledge and skills needed in working with people. Topics include communication barriers and enhancers, conflict management, procrastination, stress and anger management, and group problem-solving skills. (3 hrs. lect. per week)

### FASHION TECHNOLOGY (FT)

# 16 Clothing Construction I (2)

Garment construction for the individual using commercial patterns. Recommended for non-majors. (1 hr. lect.; 3 hrs. lab. per week)

# 17 Clothing Construction II (2)

Basic stitchery with emphasis on standards and construction techniques. Recommended for non-majors. (1 hr. lect.; 3 hrs. lab. per week)

### 28 Introduction to Industrial Sewing (3)

An introduction to apparel manufacturing with emphasis on various stitch and seam types utilizing industrial machines and attachments. Career opportunities 0 and industry terminology will also be covered in this course. (3 hrs. lect. per week)

#### 29 Textile Art (3)

FT majors only. Commercial and individual approaches to design, color and printing techniques used in textiles (2 hrs. lect.; 3 hrs. lab per week)

# 30 Basic Creative Designing (3)

Prerequisites: FT 205 and 215 and 217

The creative process of apparel design is emphasized on developing and producing a collection of garments for industry or entrepreneurship. (2 hrs. lect.; 3 hrs. lab. per week)

### 32 Advanced Apparel Design (3)

Prerequisites: FT 205 and 215 and 217

Design and creation of garments for customers. Integration of all phases of apparel production. Includes individual design, pattern drafting, cutting, fabrication, fitting, and finishing. (2 hrs. lect.; 3 hrs. lab. per week)

#### 36 Draping (3)

Prerequisites: FT 205 and 215 and 217

Basic fundamentals of draping with standard and individual forms. (2 hrs. lect.; 3 hrs. lab. per week)

# 38 Draping and Design (3)

Prerequisite: FT 36

Integration of draping and flat pattern designing for actual customers with the use of individual forms or standard forms. (2 hrs. lect.; 3 hrs. lab. per week)

# 40 Fabric Analysis (3)

A study of the fibers and fabrics used in apparel and related products. Practical applications of yarns, construction, finishes on fabrics. Simple physical and chemical tests will be demonstrated. (3 hrs. lect. per week)

# 41 Apparel Design (3)

Prerequisites: FT 205 and 215 and 217

Translating design sketches into flat patterns and constructing the finished garments. (2 hr. lect.; 3 hrs. lab. per week)

# 43 Cutting Room Functions (3)

Prerequisite: FT 205

Develops an understanding of industry methods of techniques of marking, laying up, and cutting garments in quantity with emphasis on fabric yield. Includes use of the Gerber Accumark Computer System. (3 hrs. lect. per week)

# 60 Introduction to Computer Aided Manufacturing (2)

Provides an introduction to the Gerber Garment Technology (GGT) Accumark computer system software, hardware, and peripherals. This course is the prerequisite to all courses using the GGT system. May be taken on a CR/N basis. (2 hrs. lect. per week)

# 61 Computer Aided Digitizing (2)

Prerequisites: FT 60 and 237 or instructor's approval

Input production pattern pieces into the computer using the Gerber Accumark software and digitizing table. May be taken on a CR/N basis. (2 hrs. lect. per week)

### 62 Computer Aided Grading (2)

Prerequisites: FT 60 and 61 and 237 or instructor's approval

Covers computer techniques for grading production patterns using Gerber Garment Technology Accumark computer system. May be taken on a CR/N basis. (2 hrs. lect . per week)

### 63 Computer Aided Marking (2)

Prerequisites: FT 43 and 60 or instructor's approval

Covers computerized marking using the Gerber Garment Technology Accumark computer system. May be taken on a CR/N basis. (2 hrs. lect. per week)

## 90 FT Special Topics (3)

Prerequisite: Instructor's approval

Special topics in fashion technology. Students may enroll 3 times for a maximum of 9 credits. May be taken on a CR/N basis. (2 hrs. lect.; 3 hrs. lab. per week)

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

Instructor approval required. FT majors only. This course will provide the student with the opportunity to acquire on-the-job experience related to classroom and laboratory instruction in Fashion Technology. Students may enroll 4 times for credit up to a maximum of 4 credits. (5 hrs. work experience per week per credit)

#### 100 Fashion Modeling (1)

Prerequisite: FT major or FT instructor approval required

Students will acquire the skills and knowledge necessary to model fashion on the fashion runway. The course includes informal modeling and the presentation of the total fashion look. (1 hr. lect.)

### 101 How to Succeed in your Career (3)

Students learn what it takes to enter the job market in the fashion industry. The course covers fundamental social and business skills needed to be successful in a professional career. (3 hrs. lect. per week)

### 111 Art and Design in Fashion (3)

A survey of fashion as it relates to art and design. Line, color, balance, proportion are studied providing guidelines to understanding fashion and how it communicates personal image to society. (3 hrs. lect. per week)

# 120 Fashion Industry Survey (3)

A survey of the fashion industry, fashion marketing trends, and retailing organizations. Career options will be explored. (3 hrs. lect. per week)

### 125 Fashion Show Production (2)

Comprehensive practical experience including all factors required for the preparation and production of fashion shows, clinics, and other fashion promotions. (2 hrs. lect. per week)

## 127 Fashion Selling (3)

This course is designed to help students develop skills in selling fashion merchandise. Emphasis will be on the development of positive retailing attitudes and sales techniques. (3 hrs. lect. per week)

### 128 Visual Merchandising (3)

This course is designed to examine the visual approach to selling fashion merchandise with an emphasis on effective exterior and interior store displays. (3 hrs. lect. per week)

#### 129 Merchandise Planning and Control (3)

Fundamentals of mathematics used in merchandise planning and daily operations of a fashion operation. Essential practices, procedures, and interpretations of profit factors. Use of computers in fashion merchandising. (3 hrs. lect. per week)

### 130 Fundamentals of a Small Fashion Business (4)

Principles and procedures in organizing a small fashion enterprise. Application of decision-making techniques. Students will develop and evaluate a model plan for a small fashion store. (4 hrs. lect. per week)

### 135 Computers in Retailing (3)

Prerequisite: ICS 100 or ICS 100M

Computer applications are studied for inventory control, buying, point of sale, basic accounting, and the advantages gained by using computers in large and small retail businesses. Hands-on projects will be required. (3 hrs. lect. per week)

#### 140 Fabric Technology (3)

Fabrics commonly used in fashion merchandise are studied discussing how their fiber content, construction, and finish affect their end use. Methods of fiber and yarn identification and their construction are examined for their practical application. (3 hrs. lect. per week)

### 145 Fashion Buying and Merchandising (3)

A study of the buying/selling functions of fashion and accessories, the buyer's role in selecting merchandise and merchandising a store for profitable fashion retailing. (3 hrs. lect. per week)

### 150 Sales and Promotion of Fashion (3)

A survey of techniques used to promote and sell fashion merchandise. Students will gain hands-on experience in executing promotional events and displays. (3 hrs. lect. per week)

# 160 Computerized Pattern Grading and Marking (4)

Prerequisites: FT 43 and 215 and 237 and ICS 100 or Instructor's approval Course covers the knowledge and skills required to use the Gerber Garment Technology (GGT) System to grade and digitze patterns and to prepare production markers. It also covers the GGT system hardware capabilities as well as software programming. (3 hrs. lect; 3 hrs. lab. per week)

### 193V Cooperative Education (1-4)

Instructor approval required. FT majors only. This course will provide the student with the opportunity to acquire on-the-job experience related to fashion merchandising emphasizing technical and interpersonal aspects. Students may enroll 4 times for credit up to a maximum of 4 credits. (5 hours work experience per week per credit)

### 205 Materials and Methods of Clothing Construction (4)

Principles, concepts and procedures for quality construction and custom fitting of clothing. (3 hrs. lect.; 3 hrs. lab. per week)

### 215 Block Pattern Designing (3)

Prerequisite or Corequisite: FT 205

Principles of pattern making for women's apparel through manipulation of quarter size pattern blocks. (2 hrs. lect.; 3 hrs. lab. per week)

### 216 Fashion Design and Sketching (3)

Development of apparel design through sketching the fashion figure. (2 hrs. lect.; 3 hrs. lab. per week)

### 217 Flat Patternmaking II (3)

Prerequisites: FT 205 and 215

Expanding and refining the technical and production methods of flat pattern-making. Applying construction and alteration techniques to samples and final garments. (2 hrs. lect.; 3 hrs. lab. per week)

# 220 Fashion Retail Management I (3)

Prerequisite: FT 120

Large and small retail organizations and the functions of management in those organizations are studied. The importance of leadership, communications, and interpersonal relations in retail management are emphasized. Real life applications are integrated into the class. (3 hrs. lect. per week)

#### 221 Fashion Retail Management II (3)

Prerequisite: FT 220

This course is a further study of retail management techniques and responsibilities focusing on the case study method. The class will examine actual companies and their management practices and policies, solving problems in a seminar format. (3 hrs. lect. per week)

### 237 Pattern Grading (3)

Prerequisite: FT 215 and MATH 20

Principles of proportionally increasing or decreasing a master pattern according to a prescribed set of body measurements. Applications include basic, intermediate and advance designs. Includes use of the grading machine and Gerber Accumark Computer System. (2 hrs. lect.; 3 hrs. lab. per week)

**Note:** The following courses have been accepted at the University of Hawai'i at Manoa in the Human Resources Department. These are subject to change without prior notice.

| <u>HCC</u> | <u>UHM</u>    |  |
|------------|---------------|--|
| FT 111     | TXCL 111      |  |
| FT 205     | TXCL 205      |  |
| FT 215     | TXCL 215      |  |
| FT 216     | TXCL 216      |  |
| FT 237     | TXCL 237      |  |
| FT 160     | TXCL elective |  |

# FILIPINO (FIL) (Formerly TAGALOG)\*

# 101-102 Elementary Filipino I-II (4-4) (Formerly TAG 101-102)

101 Prerequisite: ENG 20B & C & D & E OR ESL 11 & 13 & 17 OR placement in ENG 22/60

102 Prerequisite: FIL 101

Development of listening, speaking, reading, writing. Drill and practice emphasized. Laboratory work required. (4 hrs. lect.; 1 hr. lab. per week)

## 201-202 Intermediate Filipino (4-4)

201 Prerequisite: FIL 102 202 Prerequisite: FIL 201

Fulfills the required 2-year minimum of foreign language study. Continuation of FIL 102 for FIL 201 and FIL 201 for FIL 202. Lessons focus on various aspects of Philippine culture, as well as social and linguistic rules of the language. Prerequisite for FIL 301, a required core course to get a B.A. in Philippine Languages and Philippine Literature (focus on Filipino/Tagalog language). (5 hrs. lect. per week)

\*Native speakers may not take language courses for credit.

# FIRE AND ENVIRONMENTAL EMERGENCY RESPONSE (FIRE)

#### 100 Introduction to Fire Protection (3)

Prerequisite: ENG 22 or 60 OR placement in ENG 100

History and philosophy of fire protection. Introduction to fire agencies; current fire legislation, career orientation, recruitment and training programs, classification and pay systems, employee organization. This course is designed as a general background for vocational students, or students not currently in the fire service. May be taken on a CR/N basis. (3 hrs. lect. per week)

### 101 Essentials of Fire Suppression (3)

Prerequisite: ENG 22 or 60 OR placement in ENG 100

FIRE majors only. Introduction to modern fire suppression, the behavior of fires, introduction to physics and chemistry of fire, general overview of how fire affects materials, various products, and environments. Suppression agents and systems, equipment and new technology, suppression apparatus, aviation fires, motor vehicle fires, marine fires, wildland fire suppression. May be taken on a CR/N basis. (3 hrs. lect. per week)

#### 102 Fundamentals of Fire Prevention (3)

Prerequisite: ENG 22 or 60 OR placement in ENG 100

FIRE majors only. Introduction to modern fire prevention, public relations involved, introduction to national and local codes used in prevention. An overview of public prevention programs, new technologies used in prevention, inspection procedures and guidelines, current problems, legislation, and enforcement of fire prevention. May be taken on a CR/N basis. (3 hrs. lect. per week)

# 103 Medical Emergency First Responder (3)

Prerequisite: ENG 22 or 60 OR placement in ENG 100

This course is designed to teach first responders basic life support skills and procedures in the prehospital emergency setting. May be taken on a CR/N basis. (3 hrs. lect. per week)

# 107 Fire Fighting Tactics and Strategies (3)

Prerequisite(s) or Corequisite(s): FIRE 101 and 102

FIRE majors only. Introduction to Fireground planning and coordination, extinguishment tactics and strategies, functions of different fire companies, various tactical operations, types of extinguishment agents and uses. Pre-planning and command systems, size and types of incidents. Discussion of modern fire problems and suppression tactics and strategies involved. May be taken on a CR/N basis. (3 hrs. lect. per week)

# 111 Management in the Fire Service (3)

Prerequisite(s): FIRE 101 and 102

FIRE majors only. An overview of fire service management theories and application principles in the fire service. Management by objective. Current fire safety education, problem identification and program development strategies are introduced. Fireground management functions; management of financial resources, physical resources, and facilities. May be taken on a CR/N basis. (3 hrs. lect. per week)

#### 115 Fire Apparatus and Equipment (3)

Recommended Preparation: FIRE 101

FIRE majors only. Comprehensive overview of fundamental principles, test, inspection and servicing of equipment, maintenance, description of operation of various pump types, pump driving test, water supply (types of hydrants and values). The course will enhance the student's knowledge and skills required by National Fire Code 1002 Driver/Operator. (3 hrs. lect. per week)

### 117 Basic Rescue in the Fire Service (3)

Recommended Preparation: FIRE 101

FIRE majors only. To introduce definitions, terminology, and provide the student with a basic knowledge of rescue. To understand the four phases of rescue; locate and access victims, stabilize the situation, and transport the victims to safety while managing and injuries and avoiding risk or injury to the victims or rescuers. May be taken on a CR/N basis. (3 hrs. lect. per week)

# 119B Emergency Medical Technician (3.5)

Prerequisite: FIRE 103

This course is the first in a series of two EMT Basic courses. This course is designed to develop specific medical skills used in emergency response. Students should be prepared to do practical labs both in class and in a hospital setting. Students are required to pay a lab fee and purchase a limited liability coverage policy while participating in this course. May be taken on a CR/N basis. (3 hrs. lect.; 3 hrs. lab. per week)

# 119C Emergency Medical Technician-Basic (3.5)

Prerequisite: FIRE 119B and 103

This course is the second in series of the EMT Basic curriculum. This course is designed to develop specific medical skills in responding to medical emergencies. Students are required to continue practical lab experiences that were started in FIRE 119B. Graded on a CR/N basis. (3 hrs. lect.; 1.5 hrs. lab. per week)

# 123 Fire Investigation (3)

Recommended Preparation: FIRE 101 and 102

FIRE majors only. Introduction to an analytical approach to fire investigation that recognizes the numerous facets of fires, fuels, people and investigative procedures. The scientific principles of combustion and fire behavior will be stressed as well as the important principles of scientific investigation. (3 hrs. lect. per week)

#### 126 Fire Service and the Law (3)

Recommended Preparation: FIRE 101 and 102

FIRE majors only. Fire service personnel legal rights and liability concerns are reviewed. Duties, responsibilities, and legal problems of the fire service in regard to working situations are studied from the judicial perspective. (3 hrs. lect. per week)

#### 150 Industrial Fire Protection (3)

Recommended Preparation: FIRE 101 and 102

Basic fire protection-prevention course for industry. Includes planning, managing and training for fire emergencies. Cross-listed as OESM 150. May be taken on a CR/N basis. (3 hrs. lect. per week)

### 151 Introduction to Wildland Fire Control (3)

FIRE majors only. Introduction to basic wildland fire organization, ICS, fire behavior, air operations, suppression methods, tools and equipment. Emphasis on fire safety and basic introduction to portable pumps, water use, and chainsaws. May be taken on a CR/N basis. May be taken on a CR/N basis. (3 hrs. lect. per week)

# 152 Wildland Fire Control Field Methods (3)

Prerequisite or Corequisite: FIRE 151

Introduction to wildland fire suppression field strategies, tactics and techniques. The course is structured around hands-on training in an outdoor environment. Students are familiarized with tools, techniques and how to best apply them in the wildland fire context. (6 hrs. lect. per week)

#### 154 Wildland Urban Interface Operations (3)

This course is an introduction to the strategies, tactics, techniques, tools and safety consideration related to fire operations in the wildland/urban interface. The course involves aspects of suppression and prevention. (3 hrs. lect. per week)

### 193V Cooperative Education (1-6)

Instructor approval required. FIRE majors only. This course provides students with the opportunity to acquire on-the-job experience related to classroom instruction in Fire and Environmental Emergency Response emphasizing technical and interpersonal aspects. Students may enroll 4 times for credit up to a maximum of 12 credits. 6 credits can be applied to FIRE elective requirements. (5 hrs. work experience per week per credit)

### 202 Fire Hydraulics (3)

Recommended Preparation: FIRE 101 and 102 and MATH 50

FIRE majors only. Introduction to theory and practical application of principles of water and fluid flow. Topics include: pumping and pumping apparatus; equipment; mathematical formulas and equations; application procedures; hazards, and safety precautions. Tactics utilized, general fireground rules of thumb, and procedures involved in hydraulic operations. May be taken on a CR/N basis. (3 hrs. lect. per week)

# 203 Introduction to Hazardous Substances in Emergency Response (3)

Recommended Preparation: FIRE 101 and 102 and CHEM 105

This course introduces definitions, terminology, and emergency response considerations of the hazardous materials field. Determining safety precautions and tactics, understanding classification of toxic materials; transportation and storage; fire and health hazards of hazardous substances in emergency response are topics included. Cross-listed with OESM 203. May be taken on a CR/N basis. (3 hrs. lect. per week)

# 206 Building Construction for Fire Protection (3)

Recommended Preparation: FIRE 101 and 102

FIRE majors only. A study of construction concepts as they relate to fire prevention and suppression. Fire pre-planning, protection systems, and fire related materials are introduced. The student will be able to conduct a basic facility survey and pre-incident plan. (3 hrs. lect. per week)

## 207 Hazardous Materials Awareness and Operation (3)

Recommended Preparation: FIRE 203 and CHEM 105

Students are introduced to initial response for Hazardous Material Incidents. Topics include personal safety, NFPA standards, OSHA and EPA regulations, toxicology, Incident Command System, decontamination, chemical resources, initial response, assessment, goal systems, and tactical options for HAZ MAT incidents. Meets Basic Concepts and Awareness levels as provided by NFPA. Cross-listed with OESM 207. May be taken on a CR/N basis. (3 hrs. lect. per week)

### 208 Aircraft Rescue Fire Fighting (3)

Recommended Preparation: FIRE 101 and 102

Introduction to definitions, concepts, methods, and requirements of an airport firefighter's duties and responsibilities. The course has two major areas of concentration: the Federal Aviation Regulation (FAR 139) and the National Fire Code (NFC 1003). (3 hrs. lect. per week)

### 209 Hazardous Materials Technician (3)

Recommended Preparation: FIRE 203 and 207 AND CHEM 105

This course is one of the final courses in a series of courses that were developed to increase responders awareness and capabilities to respond to hazardous materials incidents. May be taken on a CR/N basis. (3 hrs. lect. per week)

#### 211 Hazardous Materials Incident Management (3)

Recommended Preparation: FIRE 209

Course will train students to take command at HAZMAT incidents. Students will gain knowledge and skills in ICS/IMS management, risk assessment, management of basic tasks on incidents, personnel management, and management of the emergency response site. May be taken on a CR/N basis. (3 hrs. lect. per week)

# 214 Extinguishing and Detection Systems (3)

Recommended Preparation: FIRE 101 and 102

This course introduces new technologies for fire detection and suppression systems. It provides basic information on various detection and extinguishing systems found in most types of structures. Occupancy regulations and building and fire codes are discussed in regard to mandatory detection and extinguishing systems. (3 hrs. lect. per week)

# 218 Emergency Response for Hazardous Materials (4)

Recommended Preparation: FIRE 203

FIRE majors only. This course provides students with hands-on instruction in safety and emergency response to chemical and physical exposures in industrial and field settings. Topics discussed include: hazard analysis, contingency planning, proper use and selection of PPE, site control and evaluation, field sampling and monitoring, and proper use of instruments. This course satisfies the requirement for generalized employee training under OSHA (1910.120). Cross-listed as OESM 218. (3 hrs. lect.; 3 hrs. lab. per week)

## 270 Incident Command and Disaster Control (3)

Recommended Preparation: FIRE 101 and 102

FIRE majors only. This course defines terms and examines concepts, theories, and principles of the Incident Command System and disaster control in the fire service. Major topics include the Incident Command System function, staff functions in single command structures, management of various disasters, and initial and escape fire attack situations. May be taken on a CR/N basis. (3 hrs. lect. per week)

### FOOD SCIENCE AND HUMAN NUTRITION (FSHN)

### 19 Nutrition for Fitness (2)

Emphasis on carbohydrates, fats, proteins, vitamins, minerals and water as nutrients for maintaining a healthy body. Calories and their effect on diet and weight control. The nutritional needs of athletes, sedentary and active people for healthier lives. (2 hrs. lect. per week)

### 24 Diet and Nutrition for Pre-Primary Child (2)

Basic food groups and related factors in planning meals suitable for the very young child in the home, food buying tips, hygienic food handling techniques, pleasant mealtimes; varied and nutritious snacks; avoiding possible problems in feeding babies and young children. This course is especially designed for family day care home operators and parents who care for children at home. (2 hrs. lect. per week)

#### 26 Meal Planning and Budgeting (3)

The planning and preparation of nutritious, esthetic, and economical meals, including special diets, using a variety of food patterns. Use and care of equipment, management of time, energy and money. (3 hrs. lect. per week)

#### 75 Human Nutrition and Food Science (3)

This course is designed to integrate the basic concepts of the natural sciences with the study of human nutrition, food production, and food safety. It will provide a scientific foundation for understanding the nutrient requirements of healthy individuals; the characteristics, physiological functions and food sources of the nutrients; the production of a safe food supply with emphasis on safe food handling; and government regulations that protect the food supply. May be taken on a CR/N basis. (3 hrs. lect. per week)

# 184 Contemporary Issues in Foods and Nutrition (2)

Lectures on some widely discussed subjects related to human nutrition. Topics include world food crisis, protein alternatives, food additives, methods in food advertising, and nutritional labeling. Primarily for non-majors. Students wishing further understanding of basic nutrition concepts should also enroll in 285. (2 hrs. lect. per week)

### 185 The Science of Human Nutrition (3)

Integration of natural science concepts basic to study of human nutrition. Emphasis on nutrient requirements of healthy individuals throughout life cycle, food sources, functions and interrelationships of nutrients. Lectures supplemented with individualized instructional activities. (3 hrs. lect. per week)

**Note:** FSHN 185 is accepted as a natural science requirement at the University of Hawai'i at Manoa, UH West Oahu, and at other community colleges.

### FRENCH (FR)\*

# 101-102 Elementary French I-II (4-4)

101 Prerequisite: ENG 20B & C & D & E OR ESL 11 & 13 & 17 OR placement in ENG 22/60

102 Prerequisite: FR 101

Development of listening, speaking, reading, writing. French daily life and culture is given some attention. Laboratory work required. (4 hrs. lect.; 1 hr. lab. per week)

\*Native speakers may not take language courses for credit.

## **GEOGRAPHY (GEOG)**

# 101 The Natural Environment (3)

Prerequisite: Placement in ENG 22/60

An introduction to physical geography: distribution and interrelationships of climates, vegetation, soils, landforms—with special emphasis on Hawai'i. Fulfills Natural Sciences core requirement. (3 hrs. lect. per week)

#### 102 World Regional Geography (3)

Prerequisite: Placement in ENG 22/60

Survey of the world's major geographic regions with focus on the interrelationships between the physical and human elements of these regions. Geographic aspects of contemporary economic, social, and political conditions will be studied. (3 hrs. lect. per week)

#### 122 Geography of Hawaii (3)

Recommended Preparation: Placement in ENG 22 or higher

Examines Hawai'i as a unique, special place. Physical geography (volcanoes, erosion, climate, water resources, natural hazards), cultural geography (precontact society, the monarchy, economic change, agriculture, tourism, energy, population, land use, transportation, and urbanization), and regional geography of each island will be presented. (3 hrs. lect. per week)

### 151 Geography and Contemporary Society (3)

Prerequisite: Placement in ENG 22/60

Elements of economic geography and resource management; study of populations and food problems; energy; ecosystems; and pollution; application to current problems of developed and underdeveloped nations. (3 hrs. lect. per week)

# **GEOLOGY AND GEOPHYSICS (GG)**

## 101 Introduction to Geology (3)

The study of Earth, the natural physical environment, landscape, rocks and minerals, rivers and oceans, volcanos, earthquakes, plate tectonics and other internal processes; the effects of human actions on Planet Earth. (3 hrs. lect. per week)

### 101L Introductory Geology Laboratory (1)

Prerequisite or Corequisite: GG 101 or GG 103

The study of rocks and minerals, topographic and geologic maps and cross sections. (3 hrs. lab. per week)

# 103 Geology of the Hawaiian Islands (3)

Prerequisite: Placement in ENG 22/60

Survey of Hawaiian rocks, minerals, volcanism, erosion, sedimentation, land-scape evolution, geologic history, and regional geology. (3 hrs. lect. per week)

### HAWAIIAN (HAW)\*

# 101-102 Elementary Hawaiian I-II (4-4)

101 Prerequisite: ENG 20B & C & D & E OR ESL 11 & 13 & 17 OR placement in ENG 22/60

102 Prerequisite: "C" or higher in HAW 101

Development of listening, speaking, reading, writing. Drill and practice emphasized. Laboratory work required. (4 hrs. lect. per week)

### 201-202 Intermediate Hawaiian (4-4)

201 Prerequisite: "C" or higher in HAW 102 202 Prerequisite: "C" or higher in HAW 201

An Intermediate level course for students with Elementary knowledge of Hawaiian language. Language learning requires competence in four areas of skill, including listening, speaking, reading, and writing. (4 hrs. lect. per week)

# 261 Hawaiian Literature in English (3)

Prerequisite: "C" or higher in ENG 100 OR placement in ENG 209-260

A literary and cultural experience of the indigenous Hawaiian culture through reading and analyzing selected major works in English translations. (3 hrs. lect. per week)

\*Native speakers may not take language courses for credit.

# HAWAIIAN STUDIES (HWST)

# 24 Hawaiian Culture (3)

Nature of Hawaiian arts and crafts, their expression in various forms and their relationship to Hawaiian culture. (3 hrs. lect. per week)

### 105 Mea Kanu: Hawaiian Plants and Their Uses (3)

Prerequisite: Placement in ENG 22/60

This course explores the cultural uses of plants by humans in the Hawaiian archipelago and elsewhere in Polynesia. Focus will be upon those plants that were originally found in Hawai'i when early settlers came and those plants that were brought by them. Cross-listed as BOT 105. (3 hrs. lect./demo. per week)

### 107 Hawai'i: Center of the Pacific (3)

Prerequisite: Placement in ENG 22/60

This course examines traditional Hawaiian and Pacific cultures and how outside western ideas and ideals have impacted upon island societies. Particular focus is on colonization and modernization and the conflicts they impose upon native Hawaiian and other Pacific peoples. (3 hrs. lect. per week)

# 212 Hula Ōlapa: Traditional Hawaiian Dance (2)

This is a beginning course in the traditional/ancient styles of hula. The performance of repertoire and techniques will be at the novice level. Cultural, historical, political and mythological concerns will be discussed as well as the integration of some Hawaiian language terminology (1 hr. lect., 1.5 hr. lab per week)

# 231 Hawaiian Culture (3)

Prerequisite: "C" or higher in ENG 100 OR placement in ENG 209-260 A comprehensive study of the traditional Hawaiian culture. There is a strong emphasis in presenting the culture as an ongoing, living entity in which the students will become involved. (3 hrs. lect. per week)

# HEALTH, PHYSICAL EDUCATION & RECREATION (HPER)

# 31 Cardiovascular Training (1)

Prerequisite: Medical physical clearance

For students who wish to improve cardiovascular endurance. Through improvement in cardiovascular endurance, students will improve the efficiency of their hearts, discover the value of aerobic exercise and be able to endure their occupations and daily activities for a longer period of time. (3 hrs. lab. per week)

### 32 Flexibility and Agility (1)

Prerequisite: Medical physical clearance

For students who wish to increase flexibility and agility. Comparison and contrast of flexibility and agility. How to improve flexibility and agility for better performance in occupations and daily activities. (3 hrs. lab. per week)

#### 152 Weight Training (2)

Prerequisite: Medical physical clearance to be presented at registration For non-traditional students and other students who desire to increase physical fitness levels for better performance of physical tasks required in vocational fields and daily activities. (1 hr. lect.; 3 hrs. lab. per week)

### **HEALTH (HLTH)**

#### 31 First Aid and Safety (1)

The student will gain new and useful information for application to healthy daily living, with emphasis on the prevention of accidents and first aid care. Includes cardiopulmonary resuscitation (CPR). Graded on a CR/N basis. (1.5 hr. lect. per week)

#### HISTORY (HIST)

#### 151-152 World Civilization I & II (3-3)

Recommended Preparation: Placement in ENG 22/60

Development of civilization from its prehistoric origins to the present. (3 hrs. lect. per week)

## 231 Modern European Civilization I (3)

Prerequisites: Placement in ENG 100 Recommended Preparation: ENG 100

Historical survey of political evolution and major economic, social and cultural developments taking place in Europe. HIST 231-(1500–1815); HIST 232 (1815–present). (3 hrs. lect. per week)

### 232 Modern European Civilization II (3)

Prerequisites: Placement in ENG 100 Recommended Preparation: ENG 100

Historical survey of political evolution and major economic, social and cultural developments taking place in Europe. HIST 231-(1500–1815); HIST 232 (1815–present). (3 hrs. lect. per week)

#### 241-242 Civilizations of Asia I & II (3-3)

Prerequisites: Placement in ENG 100

Recommended Preparation: ENG 100 OR placement in ENG 209-260

Historical survey of the major civilizations of Asia from the earliest times to the present. Cross-listed as ASAN 241-242. Credit may be received for HIST 241 or for ASAN 241 but not both. Credit may be received for HIST 242 or for ASAN 242 but not both. (3 hrs. lect. per week)

#### 281-282 Introduction to American History I & II (3-3)

Prerequisites: Placement in ENG 100

Recommended Preparation: ENG 100 OR placement in ENG 209–260 Interpretative survey of United States history from the earliest settlements to the

present. (3 hrs. lect. per week)

## 284 History of the Hawaiian Islands (3)

Prerequisite: ENG 100

Survey of the social, political, and economic history of Hawai'i from the earliest

times to the present. (3 hrs. lect. per week)

#### 288 Survey of Pacific Islands History (3)

Prerequisite: ENG 100

Development from precolonial to modern times; early settlement, cultural contact, colonization, contemporary problems. (3 hrs. lect. per week)

## HOME ECONOMICS (HE)

#### 153 Management of Family Resources (3)

Introduction to family management that includes identification and use of some family resources and the implication for family and social welfare. (3 hrs. lect. per week)

## 260 Family Management and Decision Making (3)

Integrated approach to management in the family, emphasizing values and goals of family functioning and use of resources. Management and decision making in different socioeconomic settings. (3 hrs. lect. per week)

## 267 Home Furnishings (3)

Selection, arrangement, and coordination of the various aspects of home furnishings to meet family needs. Topics include development, general features, and design. (3 hrs. lect. per week)

## **HUMAN SERVICES (HSER)**

#### 30 Work with Senior Citizens (3)

Survey of jobs involving work with elderly. Students will be exposed to community resources designed to meet the needs of senior citizens and will learn the nature of elderly services work in various agencies which serve the older person. Basic approaches utilized by elderly services workers will be discussed. Rewards and problems in work with the aged. (3 hrs. lect. per week)

## 40-43 Series Special Topics in Human Services (Number of credits depends on topic & may vary from semester to semester.)

Special topic courses. A variety of contemporary topics, workshops, projects, or readings in methods or problems in human services. May be repeated for credit. Some topics may be taken on a CR/N basis. (Class hours depend on topic & may vary from semester to semester.)

#### 47 Home Visitor Special Projects (6)

This course prepares students for positions in agencies utilizing home visitors as service providers for families with children ages 0 to 5 years of age. It covers issues essential to home visits with at-risk families. (5 hrs. lect.; 1 hr. lab. per week)

#### 79 Introduction to School-Age Programs and Child Care (1)

An introduction to school-age concepts, background, and skills necessary for working with children from five to twelve years of age. May be taken on a CR/N basis. (1 hr. lect. per week)

## 80 Developmentally Appropriate Practice: School-Age (9-12 years) (2)

An overview of theoretical knowledge and practical skills integral to the planning, implementation, and evaluation of developmentally appropriate schoolage programs. May be taken on a CR/N basis. (2 hrs. lect. per week)

#### 81V Lab Experience for School-Age (1-3)

Coreauisite: HSER 80

Supervised lab experience in school-age practice. Students will be able to engage in a variety of activities and assignments related to HSER 80: Developmentally Appropriate Practice: School-Age, as well as to develop competency in observation, planning, implementation, and evaluation. May be taken on a CR/N basis. (3–9 lab hrs. per week)

## **HUMANITIES (HUM)**

## 193V Cooperative Education (1-4)

Instructor approval required. This course will provide the student with the opportunity to acquire on-the-job experience related to classroom and laboratory instruction in Humanities. Students may enroll 4 times for credit up to a maximum of 12 credits. (5 hrs. work experience per week per credit)

#### **IED - DRAFTING (IEDD)**

#### 101 Basic Drafting and Design for Industrial Education (3)

A basic mechanical drawing course including the care and use of drafting instruments, principles of orthographic projection, and isometrics; application of principles to solving design problems. (5 hrs. lect./lab. per week)

#### 102 Drafting and Design for Industrial Education (3)

Prerequisite: IEDD 101 or DRAF 24

Continuation of 101. Major focus is on machine and assembly drafting, auxiliary and sectional views, and technical illustration. (5 hrs. lect./lab. per week)

## 201 Advanced Drafting and Design (3)

Prerequisites: (IEDD 101 and 102) OR (DRAF 24 and 26)

This course covers the fundamentals of architectural drafting, including lettering, projections, sections, details, and pictorial and working drawings. (5 hrs. lect./lab. per week)

## **IED - ELECTRONICS (IEDT)**

#### 101 DC/AC Fundamentals (3)

A study of the fundamentals of electricity. Topics include electrical units, electrons, conductors, insulators, Ohm's Law, Kirchhoff's Law, volts-amps, resistance, power, wattage, magnetism, inductance, reactance, resonance, frequency, alternating current, direct current, motors and generators. (5 hrs. lect./lab. per week)

## 103 Electronic Devices (3)

Prerequisite: IEDT 101

Basic concepts of vacuum tubes, semiconductors, integrated circuits, and their applications to power supplies, amplifiers, sinusoidal and non-sinusoidal oscillators, and basic logic circuits. (5 hrs. lect./lab. per week)

#### IED - ELECTRICITY (IEDE)

#### 102 Electrical Building Construction (3)

An elementary electrical installation course designed to meet the Department of Education's requirements for the electrical building construction technology program. This course covers the applications of electrical installation theory and techniques as applied to building construction. (5 hrs. lect./lab. per week)

#### IED - MACHINE SHOP (IEDM)

#### 101 Machine Shop for Industrial Education (3)

Survey of the fundamental processes and operations in metalworking and production technology. An overview of the entire machine shop is presented. Some skill is developed in the use of hand tools, lathes, the drill press, and layout techniques. (5 hrs. lect./lab. per week)

## 102 Machine Shop for Industrial Education (3)

Prerequisite: IEDM 101

An advanced course in metalworking lathe operation, including taper and angular turning, boring, cutting internal and external acme screw threads, and face plate set-up. Stress is placed on precision measurements through the use of micrometers and vernier calipers. (5 hrs. lect./lab. per week)

## 201 Machine Shop for Industrial Education (3)

Prerequisite: IEDM 102

A course in the operation of the milling machine, including methods of tooling, job set-up, and speeds and feeds for commonly used metals. Students develop skills in plane and face milling, keyway cutting, gear cutting, and job setup on jobs performed on the vertical and horizontal milling machines. (5 hrs. lect./lab. per week)

#### 202 Machine Shop for Industrial Education (3)

Prerequisite: IEDM 201

An advanced course in the operation of lathes, drill presses, milling machines, grinding machines utilizing technical handbooks and data publications to complete projects and special shop assignments. (5 hrs. lect./lab. per week)

#### IED - POWER TECHNOLOGY (IEDP)

#### 102 Internal Combustion Engines (3)

Theory and practice in the operation, repair, and maintenance of modern internal combustion engines, including disassembly, inspection, precision measurement, repair or replacement of components, reassembly and final adjustments. (5 hrs. lect./lab. per week)

#### 201 Electrical Systems (3)

Theory and laboratory work in automotive electrical systems and components. (5 hrs. lect./lab. per week)

#### 202 Power Train (3)

Theory of and practice in servicing clutches, transmissions, overdrives, drive lines, rear axles, and differentials, hydraulic and power brake systems, mechanical and power steering systems, wheel alignment and balance, and suspension systems. (5 hrs. lect./lab. per week)

#### IED - SHEET METAL (IEDS)

#### 103 Sheet Metal for Industrial Education (3)

This course is designed to assist the Industrial Education major to gain experience and proficiency in the use and care of sheet metal equipment in the layout and fabrication of sheet metal projects. (5 hrs. lect./lab. per week)

## IED - WELDING (IEDW)

#### 102 Welding for Industrial Education (3)

This course will provide a general overview of various welding processes, including practical instruction for the development of specific welding skills. Cross-listed with WELD 19 (1 hr. lect., 6 hrs. lab. per week)

#### IED - WOOD CONSTRUCTION (IEDC)

## 101 Hand and Portable Tools/Materials and Hardware (3)

This course is designed to orient students in the use and care of wood construction hand and portable power tools. Instruction includes purchasing practices, cost and usage of various building materials and hardware. (5 hrs. lect./lab. per week)

## 102 Machinery and Joinery (3)

Prerequisite: IEDC 101

This course is designed to provide each student with a complete understanding of the power equipment most commonly used in construction. It also includes the operation of these machines as well as the specific tasks for which each is used. (5 hrs. lect./lab. per week)

## 202 Cabinet Making (3)

Prerequisite: IEDC 102

This course is designed to give basic working knowledge and skill in cabinet making. (5 hrs. lect./lab. per week)

## **INFORMATION AND COMPUTER SCIENCE (ICS)**

Also see CENT and EE for computer courses

#### 100 Computing Literacy and Applications (3)

Recommended Preparation: ENG 22 or 60 OR placement in ENG 100

This course is a computer literacy course. It provides those basic concepts and skills related to computers and computing that are needed in today's information age. The students will acquire an understanding of concepts in word processing, spreadsheet management, database management, elementary computer graphics, desk top publishing, electronic mail and telecommunications. They will also learn some of the history of computers and an awareness of the process of creating a computer program. (Credit may be received for only ICS 100, 100E, 100M or 100T) May be taken on a CR/N basis. (3 hrs. lect. per week plus lab assignments.)

## 100E Computing Literacy and Applications (CENT) (3)

Recommended Preparation: ENG 22 or 60 OR placement in ENG 100 CENT and EIMT majors only. This course is a computer literacy course. It provides those basic concepts and skills related to computers and computing that are needed in today's information age, and, in particular, in the general area of computing and electronics. The students will acquire an understanding of concepts in word processing and basic skills in other applications appropriate to the computing and electronics industry. (Credit may be received for only ICS 100, 100E, 100M or 100T) May be taken on a CR/N basis. (3 hrs. lect. per week plus lab assignments.)

## 100M Computing Literacy and Applications (Manufacturing) (3)

Recommended Preparation: ENG 22 or 60 OR placement in ENG 100 CA, AEC, and FT majors only. This course is a computer literacy course. It provides those basic concepts and skills related to computers and computing that are needed in today's information age, and, in particular, in the general area of manufacturing. The students will acquire an understanding of concepts in word processing and basic skills in other applications appropriate to the manufacturing industry. Credit may be received for only ICS 100, 100E, 100M or 100T. May be taken on a CR/N basis. (3 hrs. lect. per week plus lab assignments.)

#### 100T Computing Literacy and Applications (Transportation) (3)

Recommended Preparation: ENG 22 or 60 OR placement in ENG 100 AMT, ABRP, AERO, DISL, and MARR majors only. This course is a computer literacy course. It provides those basic concepts and skills related to computers and computing that are needed in today's information age, and, in particular, in the general area of transportation. The students will acquire an understanding of concepts in word processing and basic skills in other applications appropriate to the transportation industry. (Credit may be received for only ICS 100, 100E, 100M or 100T.) May be taken on a CR/N basis. (3 hrs. lect. per week plus lab assignments.)

## 101 Tools for the Information Age (3)

Prerequisite: ENG 22 or 60 OR placement in ENG 100

Fundamental concepts and terms of computer technology, application software for problem solving, computer technology trends and impact on individuals and society. (3 hrs. lect. per week)

#### 102 Introduction to Internet Resources (3)

Prerequisite: Any one of the following: ICS 100, 100E, 100M, 100T, 101 Some sections may be for CENT majors only. This course introduces the many resources available on the Internet. Topics will include history, current issues and how the Internet works. Terminology, file formats, and naming conventions will be covered. Students will be introduced to the concept of client-server programs as they apply to the Internet. Special emphasis will be placed on the World Wide Web, where students will learn to browse and publish information. Cross-listed as CENT 102. Credit may be received for only ICS 102 or for CENT 102 but not for both. (3 hrs. lect. per week)

#### 111 Introduction to Computer Science I (4)

Prerequisite: MATH 27 or 58 or 103 OR placement in MATH 135 or higher This is an introductory course in computer programming. The emphasis is on a disciplined approach to writing computer programs. The understanding, reading, and writing of algorithms is a major portion of the course. An Object Oriented approach is used. An Object Oriented language, such as Java or C++, is used. The students will be expected to develop a number of increasingly complex programs during the course. (4 hrs. lect. per week)

#### 113 Database Fundamentals (3)

Prerequisite: ENG 22 or 60 OR placement in ENG 100

This course examines file organization and the use of computer databases. 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 hrs. lect. per week)

#### 141 Discrete Mathematics for Computer Science I (3)

Prerequisite: MATH 135

Prerequisite or Corequisite: ICS 111 Recommended Preparation: MATH 205

Introduction to discrete mathematics: logic, sets, functions, number theory, matrices, mathematical reasoning, counting techniques, recurrence relations, relations, equivalences, partial orders, graph and tree concepts. (3 hrs. lect. per week)

## 151C Programming in C (3)

Prerequisite: ICS 111

This is a course in the C programming language. Students will solve systems and scientific problems using C. The emphasis is on the C language syntax and good programming style. The students should already have taken a beginning programming course. (3 hrs. lect. per week)

## 202 Internet Programming Skills (3)

Prerequisites: ICS 102 and 111

CENT majors only. This course introduces students to programming for Internet applications. Topics will include setting up various Internet services and writing small programs to support these services. Special emphasis will be placed on the World Wide Web and include cgi-bin, Java, and JavaScript programming. Students should be Internet-literate and have already taken a beginning programming course. (3 hrs. lect. per week)

#### 211 Introduction to Computer Science II (3)

Prerequisite: ICS 111

A second course in computer programming. Programming consists of data structures and algorithms together. The first course covers algorithms; this course emphasizes data structures: lists, stacks, queues, binary trees. The course conforms with the ACM (Association of Computing Machinery) description of CS-2. (3 hrs. lect. per week)

#### 215 Network Administration (3)

Prerequisites: CENT 140

CENT majors only. A course that covers network administration using a Novell NetWare network as a model. Students will learn to manage the hardware and software as well as setup users, directories, and security. Cross-listed as CENT 215. Credit may be received for only ICS 215 or for CENT 215 but not for both. (3 hrs. lect. per week)

#### 227 Networking with TCP/IP and UNIX (3)

Prerequisites: CENT 140

CENT majors only. A course that covers the essentials of networking computers using the TCP/IP protocol. The UNIX operating system will be used as the primary example of networking, although interoperability with other operating systems will be covered. Cross-listed as CENT 227. Credit may be received for only ICS 227 or for CENT 227 but not for both. (2 hrs. lect.; 3 hrs. lab per week)

## 241 Discrete Mathematics for Computing Science II (3)

Prerequisites: ICS 111 and ICS 141

Prerequisite or Corequisite: MATH 205 OR placement in MATH 206

Recursive algorithms, program correctness, structured programs, graph theory, trees and their applications, probability theory, Boolean algebra, introduction to formal languages and automata theory. (3 hrs. lect. per week)

#### JAPANESE (JPNS)\*

## 24 Japanese Culture (3)

An introduction to Japanese culture through folklore and related arts and crafts. (3 hrs. lect. per week)

#### 30 Elementary Conversational Japanese I (3)

A beginning course for students who want to learn practical Japanese conversation. Emphasis is on pronunciation and accuracy. This course may be taken concurrently with JPNS 101 or 102. (3 hrs. lect. per week)

## 31 Elementary Conversational Japanese II (3)

Prerequisite: JPNS 30

A second semester course for students who have successfully completed JPNSE 30. This course is also for students who have taken conversational Japanese at another institution. It may be taken concurrently with JPNS 101–102. (3 hrs. lect. per week)

#### 101-102 Elementary Japanese I-II (4-4)

101 Prerequisites: "C" or higher in ENG 22 OR placement in ENG 100 or instructor approval

102 Prerequisite: JPNS 101

Development of listening, speaking, reading, writing. Structural points introduced inductively. Laboratory work is required. (4 hrs. lect.)

## 201-202 Intermediate Japanese I-II (4-4)

201 Prerequisite: "C" or higher in JPNS 102 202 Prerequisite: "C" or higher in JPNS 201

Intermediate Japanese is a continuation of JPNS 102. Listening, speaking, reading, writing, and grammar. Daily independent (unsupervised) tape exercises required. (4 hrs. lect.)

\*Native speakers may not take language courses for credit.

## JOURNALISM (JOUR)

## 150 The Press and Society (3)

Historical and technological development of communications media in relation to freedom of expression, the role of the media in contemporary society, with emphasis on the economic, social and political effects. (3 hrs. lect. per week)

#### 205 News Writing (3)

Prerequisite: ENG 100 OR placement in ENG 209-260

Fundamentals of news style, reporting, etc. (3 hrs. lect. per week)

#### 206 News Editing (3)

Prerequisite: ENG 100 OR placement in ENG 209-260

News and photo editing, headline writing, publications makeup. (3 hrs. lect. per week)

## 285V Newspaper Laboratory (1-3)

Prerequisite or Corequisite: JOUR 205 or 206

Complete production of the campus newspaper including writing, editing, photography, layout, etc. May be repeated for credit. (3–9 hrs. lab. per week)

#### KINESIOLOGY AND LEISURE SCIENCE (KLS)

#### 195 Personal Health and Wellness (3)

Recommended Preparation: ENG 22 or 60 OR placement in ENG 100 Scientifically based information will be presented to help the student make decisions and take responsibility for his/her own health and health-related behaviors. The student will develop a personal, daily physical activity/exercise program, in which he/she will participate and be monitored. (3 hrs. lect. per week)

#### LEARNING SKILLS (LSK)

#### 30 College Study Skills (3)

Students will develop ability to organize materials, utilize the library, take notes in class, manage their time, prepare and take exams, take responsibility for their own learning and get individual attention as needed. (3 hrs. lect. per week)

#### 50 Computer Skills (3)

Prerequisite: ICE 4 OR placement in ICE 5

This is a first computer course for students with minimal computer and study skills. This "hands-on" course is an introduction to the use of the computer as a tool in the college setting. Students will work with word processing, spreadsheet and database software. May be taken on a CR/N basis. (3 hrs. lect. per week)

## 100 Computer Applications and Skills (3)

Prerequisite: ENG 22 or 60 OR placement in ENG 100

A basic introduction to computer concepts and applications relevant to academic success at college. This course includes daily hands-on experience with word processing, database, spreadsheet, and other applications as they apply to the successful completion of college level projects, such as term papers, note taking, bibliographies, research through remote access of information, and quantitative analysis. May be taken on a CR/N basis. (3 hrs. lect./demo. plus open lab. per week)

## LINGUISTICS (LING)

#### 102 Introduction to the Study of Language (3)

Prerequisite: ENG 22 or 60 OR placement in ENG 100

A study of the nature and workings of language and its role in culture and history. (3 hrs. lect. per week)

#### MANAGEMENT (MGT)

## 20 Introduction to Management and Supervision (3)

Prerequisite: ENG 20 OR placement in ENG 20B & C & D & E OR in ESL 11 & 13 & 17

A study of small business operations and the economic and social environment within which they function. An examination will be made of major forms of business organizations, with emphasis placed upon management systems that are unique to small firms. (3 hrs. lect. per week)

#### MARINE BIOLOGY

See ZOOL 200

#### MARINE TECHNOLOGIES

BOAT MAINTENANCE AND REPAIR (MARR)

#### 20 Introduction to Marine Technology (1)

Introduces the student to career opportunities in the marine service and manufacturing industries. It also serves as an orientation to the Marine Education and Training Center (METC) and its policies. Students will be trained to fit personal protective equipment and to understand Material Safety Data Sheets. Marine nomenclature is also introduced with an emphasis on the terms used when vessels are hauled and secured on land. (30 hrs. lect./lab. per term)

#### 21 Boat Hauling Procedures (4)

Prerequisite: MARR 20

Trains students in boatyard skills. It covers the procedures followed in removing a mast from a sailboat, hauling and launching a vessel with a straddle-lift, pressure-washing a boat hull, waste water containment and treatment, moving a vessel with a marine hydraulic trailer and forklift, and blocking a boat. Personal safety is stressed throughout the course. (120 hrs. lect./lab. per term)

## 22 Portable Hand Tools and Machinery (1)

Prerequisite: MARR 20

Provides an introduction to hand tools and machinery used in the marine industry. The proper use of machinery such as a hydraulic prop and bearing remover, bead blaster and sandblaster will be demonstrated and practiced. The following woodworking tools will be introduced: table saw, bandsaw, power hand planer, and drill press. Hands-on training is emphasized. The proper utilization, safety procedures, and care of tools are stressed. (30 hrs. lect./lab. per term)

## 24 Introduction to Composite Technology (3)

Prerequisite: MARR 22

This course covers the fundamentals of working with resins, fabrics, and adhesives. Projects include the fabrication of solid and cored test panels. The methods used to insure quality control in the composites industry are also stressed. (90 hrs. lect./lab. per term)

#### 25 Composite Repair Techniques (3)

Prerequisite: MARR 24

This course covers the procedures employed in planning and executing repairs to composite vessels. Various common procedures used in the industry for composite repairs are covered in lecture, and projects dealing with these procedures are provided in the lab. (90 hrs. lect./lab. per term)

#### 29 Blueprint Reading for Marine Technicians (2)

Prepares the student to read and understand working drawings typical to the marine and cabinetry industries. Basic drafting techniques will be practiced but the emphasis is on interpretation of blueprints and understanding spatial relationships in orthographic projections. Blueprints of projects that will be built in Woodworking and Yacht Joinery will be studied. Sketching both orthographic and isometric views will be practiced. The student will attain a working knowledge of SI Metric and Imperial measurement systems. (60 hrs. lect./lab. per week)

#### 30 Woodworking (3)

Prerequisite: MARR 22 and 29

Covers the safe and proper use of power and hand woodworking tools. Procedures for sharpening, maintenance, and adjustment of tools are stressed. Rough wood stock is milled and the fabrication of proper wood joints is stressed. Instruction is also provided in the survey and repair of the wooden components of a vessel. (90 hrs. lect./lab. per term)

#### 31 Yacht Joinery (3)

Prerequisite: MARR 30

Advanced joinery projects are covered in this course. Projects include lamination techniques, biscuit joinery, and rabbeted moldings. In addition, lightweight composite furniture will be discussed and demonstrated. Hands-on instruction in the use of the radial arm and table saws, mortising machine, shaper, and router is also provided. (90 hrs. lect./lab. per term)

#### 33 Marine Finish Systems (4)

This course covers the fundamental techniques involved in the application of modern marine finishes. Projects stress proper and efficient surface preparation. Hands-on experience in the use of the siphon gun, pressure pot system, and HVLP systems is also included. (120 hrs. lect./lab. per term)

## 40 Marine Blueprint Reading and Lofting (3)

Prerequisite: MARR 29 or instructor approval

Covers the reading and interpretation of boat plans. The primary focus is on the Lines Plan. The Lines Plan describes the shape of the hull. An understanding of these lines is fundamental to any boat building, renovation, or major repair project. Projects in the drafting lab and on loft floor provide practical experience in relating the blueprints to the construction or renovation of a boat. (90 hrs. lect./lab. per term)

#### 41 Mold Station Construction (2)

Prerequisite: MARR 31 and 40 or instructor approval

Provides detailed instruction in creating a mold station and a stem form from the lofting completed in MARR 40. Station and stem bevels and skin deductions are emphasized. The end product of this course will be completed mold stations and a stem for the project boat. (60 hrs. lect./lab. per term)

#### 42 Marine Propulsion Service and Maintenance (3)

Prerequisite: PHYS 56

Provides instruction in the care, maintenance, and service of gasoline fueled outboard and sterndrive engines. Basic diesel service will be covered. (60 hrs. lect./lab. per term)

#### 43 Composite Tooling (4)

Prerequisites: MARR 41 or instructor approval

Uses the mold stations and stem form built in MARR 41 to erect a hull skeleton on a building form. Transoms are fabricated. A skin or planking of foam or wood is applied. Spiling techniques are emphasized. Fairing of the hull is practiced. (120 hrs. lect./lab. per term)

#### 50 Mold Fabrication (3)

Prerequisite: MARR 43 or instructor approval

This course uses the hull form constructed in earlier courses as a pattern to fabricate a production mold. Tooling gelcoat application is also covered. (90 hrs. lect./lab. per term)

#### 51 Composite Production (3) or instructor approval

Prerequisite: MARR 50 or instructor approval

This course uses a production mold to produce a boat hull. Chopper gun techniques, adjustment, and maintenance are covered and PVC foam cores are installed with vacuum bag techniques, (90 hrs. lect./lab. per term)

#### 52 Marine Electrical Systems (2)

Prerequisites: PHYS 56

Builds on the theory and practice learned in Physics 56, Fundamentals of Electricity. The emphasis is on DC systems. Troubleshooting a boats electrical system with a multi-meter will be practiced. Electrical installations per American Boat and Yacht Council standards will be emphasized. (60 hrs. lect./lab. per term)

## 53 Marine Plumbing (2)

Will include lecture and hands-on instruction in marine plumbing. The student will develop the necessary skills to perform the proper installation of marine sanitation and fresh water systems. This will include proper installation of heads, seacocks, thru-hulls, anti-siphon devices, accumulator tanks, holding tanks, check valves and a variety of electric and manual pumps. Nomenclature of plumbing components is stressed. (60 hrs. lect./lab. per term)

#### 54 Sailboat Rigging (2)

Provides an introduction to the maintenance of a sailboat's rigging system. Emphasis is placed on surveying a sailboat's rigging for potential failures caused by improper installation, corrosion or structural fatigue. Applying fittings to wire via cold-rolled swage, mechanical (Norseman type) fittings, and the nicro-press swage will be practiced. Installation of roller furling systems will be covered. (60 hrs. lect./lab. per term)

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

Instructor approval required. MARR majors only. This course will provide the student with the opportunity to acquire on-the-job experience related to class-room and laboratory instruction in Boat Maintnance and Repair. Student may enroll 4 time for credit up to a maximum of 12 credits (75 hrs. work experience per credit)

#### **MATHEMATICS (MATH)**

#### 20B Foundation Math (1)

The function of this course is to equip students with the foundation in math and problem-solving skills that allows them to enter their technical-occupational and liberal arts programs. It also provides opportunity for students already enrolled in programs to strengthen ability in areas of need. (2 hrs. lect. per week)

#### 20C Foundation Math (1)

The function of this course is to equip students with the foundation in math and problem-solving skills that allows them to enter their technical-occupational and liberal arts programs. It also provides opportunity for students already enrolled in programs to strengthen ability in areas of need. (2 hrs. lect. per week)

#### 20D Foundation Math (1)

The function of this course is to equip students with the foundation in math and problem-solving skills that allows them to enter their technical-occupational and liberal arts programs. It also provides opportunity for students already enrolled in programs to strengthen ability in areas of need. (2 hrs. lect. per week)

#### 20E Foundation Math (1)

Prerequisites: MATH 20B & C & D OR placement in MATH 24/50/53

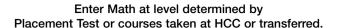
The function of this course is to equip students with the foundation in math and problem-solving skills that allows them to enter their technical-occupational and liberal arts programs. It also provides opportunity for students already enrolled in programs to strengthen ability in areas of need. (2 hrs. lect. per week)

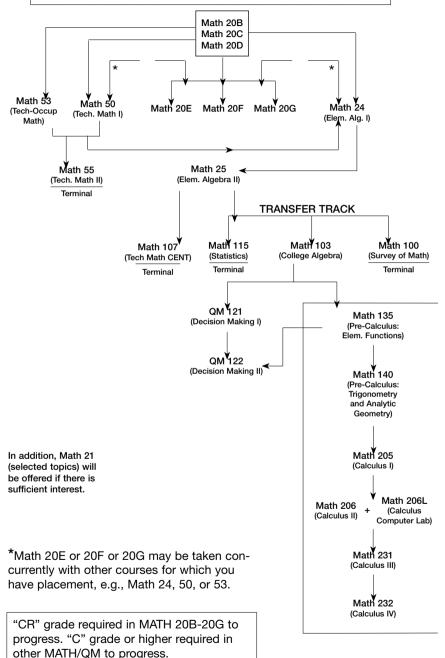
#### 20F Foundation Math (1)

Prerequisites: MATH 20B & C & D OR placement in MATH 24/50/53

The function of this course is to equip students with the foundation in math and problem-solving skills that allows them to enter their technical-occupational and liberal arts programs. It also provides opportunity for students already enrolled in programs to strengthen ability in areas of need. (2 hrs. lect. per week)

## Math Sequence





## 20G Foundation Math (1)

Prerequisites: MATH 20B & C & D OR placement in MATH 24/50/53

The function of this course is to equip students with the foundation in math and problem-solving skills that allows them to enter their technical-occupational and liberal arts programs. It also provides opportunity for students already enrolled in programs to strengthen ability in areas of need. (2 hrs. lect. per week)

## 21 Selected Topics in Mathematics (1)

Instructor approval required. A short course on one topic of special interest to students; for example, the use of calculators or a study of the metric system. Students or faculty may suggest topics. Graded on a CR/N basis. (1 hr. lect. per week)

### 24 Elementary Algebra I (3)

Prerequisite: MATH 20B & C & D OR "C" or higher in MATH 50/53 OR placement in MATH 24

This course is the first half of a standard one-year course in elementary algebra. Topics to be covered include the concept of a variable, signed numbers, evaluation of expressions, solution of equations and inequalities, graphing, and systems of equations. (3 hrs. lect. per week)

## 25 Elementary Algebra II (3)

Prerequisite: "C" or higher in MATH 24 OR placement in MATH 25

This course is the second half of a standard one-year course in elementary algebra. Topics to be covered include exponents, polynomials, factoring, rational expressions and equations, radical expressions and equations, Pythagorean Theorem, and quadratic equations. (3 hrs. lect. per week)

#### 50 Technical Mathematics I (3)

Prerequisite: MATH 20B & C & D OR placement in MATH 50

Basic algebra and basic geometry as applied to shop problems. Intended for students interested in vocational-technical programs. (3 hrs. lect. per week)

#### 53 Technical-Occupational Mathematics (4)

Prerequisite: MATH 20B & C & D OR placement in MATH 50

Basic algebra, geometry, and trigonometry as applied to shop problems. Intended for students in technical-occupational programs. May be taken on a CR/N basis. (4 hrs. lect. per week)

#### 55 Technical Mathematics II (3)

Prerequisite: "C" or higher in MATH 50 or in 53 OR placement in MATH 55 Basic numerical trigonometry and further applications of algebra and geometry to shop problems. Intended for students interested in vocational-technical programs. (3 hrs. lect. per week)

#### 100 Survey of Mathematics (3)

Prerequisite: "C" or higher in MATH 25 OR placement in MATH 100

Recommended Prep: Placement in ENG 22/60

A general survey of mathematics, with emphasis on its historical development and the role it plays in modern society. (3 hrs. lect. per week)

#### 103 College Algebra (3)

Prerequisite: "C" or higher in MATH 25 OR placement in MATH 103

An extension of the elementary algebra sequence designed to prepare students for precalculus. Topics include simplification of algebraic and radical expressions, factoring, solution of linear, quadratic, aboslute value and literal equations and inequalities, complex numbers, solution of linear and quadratic systems, logarithms and an introduction to functions and their graphs. (3 hrs. lect. per week)

#### 107 Technical Mathematics for the Information Age (4)

Prerequisite: "C" or higher in MATH 25 OR placement in MATH 27/103/107 A general survey of technical mathematics, with emphasis on the applications of mathematics to electronics, computers, and networking. Topics include: numbering systems for computers, Boolean algebra and logic gates for digital circuits, linear systems in three or more variables for DC circuits, trigonometry for AC circuits, exponential and logarithmic functions for AC circuits, rectangular and polar form of complex numbers for LRC circuits. (4 hrs. lect. per week)

#### 115 Statistics (3)

Prerequisite: "C" or higher in MATH 25 OR placement in MATH 115

Recommended Prep: Placement in ENG 22/60

A basic introduction to topics in statistics, with a brief look at probability. Emphasis on applications to physical and social sciences. (3 hrs. lect. per week)

## 135 Pre-Calculus: Elementary Functions (3)

Prerequisite: "C" or higher in MATH 27 or 103 OR placement in MATH 135 or QM 121

A study of elementary functions, including linear, quadratic, polynomial, rational, exponential, and logarithmic functions. Emphasis is placed on those topics which will prove useful to students who plan to take calculus. (3 hrs. lect. per week)

## 140 Pre-Calculus: Trigonometry and Analytic Geometry (3)

Prerequisite: "C" or higher in MATH 135 OR placement in MATH 140

A study of angles; trigonometric and circular functions; solution of triangles; graphical representation; identities; inverse trigonometric functions; polar coordinates; conic sections; graphs of exponential and logarithmic functions. (3 hrs. lect. per week)

## 205 Calculus I (4)

Prerequisite: "C" or higher in MATH 140 OR placement in MATH 205 Basic concepts, techniques and applications of differentiation; introduction to integration. (5 hrs. lect. per week)

#### 206 Calculus II (4)

Prerequisite: "C" or higher in MATH 205 OR placement in MATH 206

Corequisite: MATH 206L

Differentiation and integration of trigonometric, exponential, and logarithmic functions; introduction to hyperbolic functions; techniques and applications of integration; infinite sequences and series. (5 hrs. lect. per week)

#### 206L Calculus Computer Lab (1)

Prerequisite: "C" or higher in MATH 206 or concurrent with MATH 206 Introduction to symbolic computer software for solving calculus problems, graphic functions and experimenting with calculus concepts. No knowledge of computers required. (1 hr. lect, 1 hr. lab per week)

## 231 Calculus III (4)

Prerequisite: "C" or higher in MATH 206 OR placement in MATH 231

Prerequisite or Corequisite: MATH 206L

Functions of several variables, vectors and 3-dimensional analytic geometry, partial differentiation and applications, parametric equations, polar coordinates. (5 hrs. lect. per week)

## 232 Calculus IV (4)

Prerequisite: "C" or higher in MATH 231 OR placement in MATH 232 Multiple integrals, line integrals, surface integrals, and applications, introduction to ordinary differential equations. (5 hrs. lect. per week)

## **MECHANICAL ENGINEERING (ME)**

#### 113 Introduction to Engineering Design (3)

Prerequisites: MATH 205 OR placement in MATH 206

Recommended Preparation: High school Physics and mechanical drawing Introductory experience in analysis, synthesis, computer-aided drafting and communication in engineering. Other topics include professional ethics and social responsibility. (3 hrs. lect. per week)

#### METEOROLOGY (MET)

## 101 Introduction to Meteorology (3)

Prerequisite: ENG 20B & C & D & E OR ESL 11 & 13 & 17 OR placement in ENG 22/60

Meteorology 101 studies the physical principles governing the behavior of Earth's atmosphere, describes the characteristics of major weather systems and forecasting, sun-Earth-ocean-atmosphere interactions, and the impacts of weather on man and vice-versa, with special emphasis on Hawai'i. For non-science majors and prospective science teachers. (3 hrs. lect. per week)

#### 101L Introduction to Meteorology Lab (1)

Prerequisite or Corequisite: MET 101

This lab course includes exercises with meteorological data and measurement systems. Characteristics of Hawaiian winds, temperatures, and rainfall will be covered. (3 hrs. lab. per week)

#### MICROBIOLOGY (MICR)

#### 130 General Microbiology (3)

An introductory course to the world of micro-organisms, with emphasis on bacteria, but including algae, fungi, protozoa, and viruses; their structure, growth and development, reproduction, and classification; and their effects on people and their environment. Also included are selected topics in medical microbiology, immunology, and applied microbiology including food, industrial, sanitation, and public health microbiology. (3 hrs. lect. per week)

#### 140 General Microbiology Laboratory (2)

Prerequisite or Corequisite: MICR 130

Laboratory illustrating fundamental principles and techniques of microbiology. (4 hrs. lab. per week)

## **MILITARY SCIENCE (MSCI)**

## 105 Introduction to Military Science I (2)

Introduction to the Army ROTC program provides instruction in military-related subjects which is of general student interest. Topics include the organization and role of the Army, customs and courtesies of the Army, the Army writing style, and an introduction to military briefings. Basic skills including map reading, orienteering, rifle marksmanship, first aid, and tactics are also emphasized. May be taken on a CR/N basis. (2 hrs. lect. per week)

#### 105L-106L Introduction to Military Science I-II Lab (1)

105L Prerequisite or Corequisite: MSCI 105 106L Prerequisite or Corequisite: MSCI 106

Practical application of classroom instruction. Activities emphasized include drill and ceremony, first aid, rifle marksmanship, physical fitness, and small unit tactics. May be taken on a CR/N basis. (1.5 hrs. lab. per week)

#### 106 Introduction to Military Science II (2)

Continuation of MS 105. Topics covered previously are explored in more detail. In addition, instruction is given in military leadership, professional ethics, developing a physical fitness program, and the role of officers in the Army. Students have the opportunity to participate in adventure training activities including rapeling, helicopter operations, water operations, water survival, construction of one-rope bridges, and field training exercises. May be taken on a CR/N basis. (2 hrs. lect. per week)

#### 205 Intermediate Military Science I (4)

Introduction emphasizes the basic concepts of military leadership to include the military decision-making process and the types and styles of leadership. Basic skills to include map reading, first aid, and rifle marksmanship are further developed. Students are given the opportunity to experience a variety of leadership positions within the ROTC battalion and are encouraged to participate in field training exercises and other extracurricular activities. May be taken on a CR/N basis. (2 hrs. lect.; 2.5 hrs. lab. per week)

## 206 Intermediate Military Science II (3)

Continuation of MSCI 205. Topics introduced include military operations orders, wilderness survival skills, individual and squad level tactics, and the key jobs and responsibilities of Army officers. Further expertise in basic skills is developed. Students are encouraged to improve their physical conditioning, to seek a leadership position in the ROTC battalion, and to participate in field exercises and other extracurricular activities. May be taken on a CR/N basis. (2 hrs. lect.; 1.5 hrs. lab. per week)

#### MUSIC (MUS)

## 106 Introduction to Music Literature (3)

Recommended Preparation: Placement in ENG 22/60

This is a music appreciation course with an emphasis on developing listening skills. Music of all periods is surveyed. Concert attendance supplements discussion of various styles of music. (3 hrs. lect. per week)

#### 121D-122D Guitar I-II (2-2)

Recommended Preparation: Placement in ENG 22/60

Basic principles of classical guitar performance. Relevant problems in guitar literature at elementary level. May be taken on a CR/N basis. (2 hrs. lect./lab. per week)

## 253 Basic Experiences of Music (3)

Prerequisites: Placement in ENG 22/60 and in MATH 25

An exploration of theory and practice of music for prospective school teachers. Examines the elements of music-pitch, time, form and performance media. These elements are explored and applied thru singing, playing of ukulele, piano and percussion instrument, listening, movement, notation of music, performing from notation and analysis of music both aurally and from musical scores. The creative use of musical elements is emphasized in this course. (3 hrs. lect. per week)

# OCCUPATIONAL AND ENVIRONMENTAL SAFETY MANAGEMENT (OESM)

#### 101 Introduction to Occupational Safety and Health (3)

An overview of the development and implementation of basic safety and health principles and techniques; identification of factors of causation, techniques of investigation and reporting and environment effects; survey of regulations and professional guidelines. Required for OESM majors. (3 hrs. lect. per week)

#### 102 Safety and Health Standards, Codes and Regulations (3)

Recommended Preparation: OESM 101

History of the enactment of OSHA and other implementing legislation; an overview of professional trends and career opportunities in occupational safety and health; occupational injuries and illness—scope of the problem, cost factors and causal factors of safety; concepts and techniques of inspections; emphasis on HIOSH standards for general industry. Required for OESM majors. (3 hrs. lect. per week)

#### 103 Introduction to Ergonomics (3)

Prerequisite: OESM 101

An introduction to the basic issues of ergonomics and their occupational applications, focusing on how to adapt the tasks to the workers. Topics include work station design, man and machine interaction, lighting, load handling, and shift work. (3 hrs. lect. per week)

#### 104 Occupational-Related Diseases (3)

Recommended Preparation: ENG 22/60 OR placement in ENG 100

Basic information on major occupational diseases, how toxic materials and harmful physical agents affect the body, and methods of prevention. The course will cover required occupational health program and other related laws and regulations. Required for OESM majors. (3 hrs. lect. per week)

#### 105 Introduction to Industrial Hygiene (3)

Recommended Preparation: CHEM 100 and OESM 104

This course will acquaint students with the recognition, evaluation and control of hazards related to air contaminants, skin irritants, noise, temperature extremes, illumination and radiation. Required for OESM majors. (3 hrs. lect. per week)

#### 106 Introduction to Environmental Health (3)

Recommended Preparation: ENG 22/60 OR placement in ENG 100

This course will help students develop understanding on the extent of environmental problems, how they affect the ecosystem and the workplace, how to investigate environmental problems, and pertinent environmental laws and regulations. Required for OESM majors. (3 hrs. lect. per week)

#### 145 Occupational Safety and Health in Construction (3)

Recommended Preparation: OESM 101

Comprehensive overview of techniques and procedures to insure effective control of hazards and accidents in construction and allied industries; with emphasis on the applicable OSHA and HIOSH standards and related codes. (3 hrs. lect. per week)

## 147 Electrical Safety (3)

Prerequisite or Corequisite: OESM 102

Overview of the hazards, safe practices and methods in working with electrical energy; including the review and application of OSHA and HIOSH standards. (3 hrs. lect. per week)

## 150 Industrial Fire Protection (3)

Prerequisites: OESM 101 and 102

Basic fire protection-prevention course for industry. Includes planning, managing and training for fire emergencies. Cross-listed with FIRE 150. Credit may be received for FIRE 150 or for OESM 150 but not both. (3 hrs. lect. per week)

## 153 Accident Investigation Techniques (3)

Prerequisites: OESM 101 and 102

Professional and scientific approach to accident investigation; including accident causation, discovering hazardous conditions and practices, how to establish relevant facts. (3 hrs. lect. per week)

## 160 Labor and Management: Safety Partners (3)

Prerequisite: OESM 101

Interaction of labor-management relations/laws with the education, implementation, and enforcement of occupational safety and health. Prepares students for the world of labor relations, labor laws, contract provisions, grievances, complaints, liability, and other challenges. (3 hrs. lect. per week)

#### 193V Cooperative Education (1-4)

Instructor approval required. OESM majors only. This course will provide the student with the opportunity to acquire on-the-job experience related to class-room and laboratory instruction in Occupational and Environmental Safety Management. Students may enroll 4 times for credit up to a maximum of 12 credits. It will not fulfill OESM electives. A minimum of one credit is required for the Associate in Science degree. (5 hrs. work experience per week per credit)

## 200 Managing Workers Compensation (3)

Prerequisite: OESM 101

An introduction to the principles of Workers Compensation and Management of this responsibility. Survey course covering the principles and techniques of Workers Compensation. (3 hrs. lect. per week)

#### 205 Physical Hazards Control (3)

Prerequisite: OESM 101

Recommended Preparation: ENG 22 or 60 OR placement in ENG 100

Scope and application of systems safety; application of human engineering concepts and techniques with emphasis on human reliability and error; application of occupation safety and health requirements in purchasing and contracting, plant and job layout; principles and application of electrical and electronic safety; principles and application of manual and mechanical equipment, elevators, chemical safety; high pressure and compressed gas system; hand and portable power tools; shop production, tools and equipment; introduction to construction safety; special industry hazards unique to the Hawaiian industrial environment. (3 hrs. lect. per week)

## 208 Techniques of Industrial Hygiene (3)

Prerequisite: OESM 105

An overview of the basic principles of industrial hygiene monitoring instruments and the principles governing their selection and uses; practical applications under professional supervision. Required for OESM majors. (3 hrs. lect. per week)

#### 210 Safety Program Management (3)

Prerequisite: OESM 101

Recommended Preparation: OESM 102

Course will acquaint the student with the fundamentals of management and their application to safety program development and organization. Emphasis will be given to the concepts of responsibility, accountability and authority as applied to occupational safety and health. Required for OESM majors. (3 hrs. lect. per week)

#### 212 Hazardous Waste Management Applications (4)

Prerequisite: OESM 106

This course is an in-depth study of the application of hazardous waste regulations with an emphasis on generator compliance, site investigation & remediation, permitting, enforcement, and liability. The Resource Conservation and Recovery Act (RCRA), HIOSH/OSHA hazardous waste worker safety laws, ground water discharge permitting, and Hawai'i hazardous waste laws are included. (4 hrs. lect. per week)

#### 215 Hazardous Materials Management Applications (4)

Prerequisite: OESM 106

A study of the requirements and application of federal, state, and local laws and regulations relating to hazardous materials, including the Right-to-Know laws, transportation regulations, underground storage tank laws, and air quality standards. (4 hrs. lect. per week)

#### 218 Emergency Response for Hazardous Materials (4)

Recommended Preparation: OESM 106

This course provides students with hands-on instruction in safety and emergency response to chemical and physical exposures in industrial and field settings. Topics discussed include: hazard analysis, contingency planning, proper use and selection of PPE, site control and evaluation, field sampling and monitoring, and proper use of instruments. This course satisfies the requirements for generalized employee training under OSHA (1910.120). Cross-listed with FIRE 218. Credit may be received for FIRE 218 or for OESM 218 but not both. (4 hrs. lect. per week)

#### 225 Environmental Sampling and Analytical Techniques (3)

Prerequisite: OESM 106

Hands-on training on developing an effective field sampling program; on selecting appropriate sampling instruments and techniques; on sample handling; and on laboratory analytical methods. Focuses on methods which are accepted as reputable techniques by the U.S. Environmental Protection Agency. (3 hrs. lect.)

## 208 Techniques of Industrial Hygiene (3)

Prerequisite: OESM 105

An overview of the basic principles of industrial hygiene monitoring instruments and the principles governing their selection and uses; practical applications under professional supervision. Required for OESM majors. (3 hrs. lect. per week)

#### 210 Safety Program Management (3)

Prerequisite: OESM 101

Recommended Preparation: OESM 102

Course will acquaint the student with the fundamentals of management and their application to safety program development and organization. Emphasis will be given to the concepts of responsibility, accountability and authority as applied to occupational safety and health. Required for OESM majors. (3 hrs. lect. per week)

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#### OCEANOGRAPHY (OCN)

#### 180 Introduction to Aquaculture & Aquarium Management (3)

This course introduces students into two fields of fish culture: aquaculture which is the farming of aquatic organisms for increasing food production and aquarium management which will help aquarium hobbyist to keep ornamental fishes healthy for long periods of time. Topics include fish cultivation, biology and life-cycle of species cultivated, aquatic ecosystem, pond and aquarium construction and management and filtration techniques. (3 hrs. lect. per week)

#### 190 World Aquaculture (3)

OCN 190 is designed to provide a general background in aquaculture methods and systems as practiced in different parts of the world. The course will examine the old and new systems of cultivation on a country by country and species by species basis. The course will provide information on scientific and economic aspects of aquaculture. A discussion on biology, life-history and nutrition of cultivated species is provided. (3 hrs. lect. per week)

#### 201 Science of the Sea (3)

This course offers a descriptive and non-mathematical survey of geological, physical, chemical and biological oceanography, providing the student with a broad understanding of the sea floor and its features; chemical properties of sea water and its motions; life in the sea and its interaction with the environment. (3 hrs. lect. per week)

#### 201L Science of the Sea Laboratory (1)

Corequisite: OCN 201

OCN 201 is designed as a lab course to provide experiential education in basic oceanography. Through lab experiments, computer-aided data collection and analysis, field trips and visual observations, students will learn about earth, ocean and atmospheric interactions, ecological concepts, ocean resource utilization and management, environmental pollution and its impacts on world oceans. It will complement lectures in OCN 201 class. (3 hrs. lab. per week)

#### 230 Ocean Resources and Ecology (3)

Prerequisite: OCN 201

OCN 230 deals with the application and extension of oceanographic principles to problems of marine ecology, resource management and environmental conservation. This course will examine a variety of potentially available ocean resources such as food, energy, minerals, oil and natural gas. Methods of extraction of these resources and their impact on marine environment will be analyzed. (3 hrs. lect. per week)

Also see ZOOLOGY (ZOOL) for Marine Biology

#### PHARMACOLOGY (PHRM)

#### 203 General Pharmacology (3)

Prerequisite: ZOOL 141

Recommended Preparation: Chemistry

Drugs discussed with emphasis on sites and mechanism of action, toxicity, fate, and uses of major therapeutic agents. A very wide scope of drugs is discussed. This course is intended for undergraduates in the health sciences and related fields.

## PHILOSOPHY (PHIL)

#### 50 Introduction to Reasoning (3)

Recommended Preparation: Placement in ENG 22/60

Learning to avoid black and white thinking with special emphasis on persuasive appeals and scientific conclusions popularized by the mass media. (3 hrs. lect. per week)

## 100 Introduction to Philosophy: Survey of Problems (3)

Recommended Preparation: Placement in ENG 22/60

Great philosophical issues, theories, and controversies. (3 hrs. lect. per week)

## 101 Introduction to Philosophy: Morals and Society (3)

Recommended Preparation: Placement in ENG 22/60

Social and individual values, obligations, rights, and responsibilities. (3 hrs. lect. per week)

#### 110 Introduction to Logic (3)

Recommended Preparation: ENG 22/60 OR placement in ENG 100

Development of basic techniques of analysis and an understanding of the principles and concepts involved in clear thinking. Emphasized will be logical validity, deductive and inductive reasoning, fallacious arguments, symbolic logic, and scientific method as applied to criteria of reasonable evidence. (3 hrs. lect. per week)

## 120 Science, Technology, and Values (3)

Prerequisite: ENG 100 OR placement in ENG 209-260

An Introductory course addressing the relationship between science, technology, and human values with a focus on contemporary problems posed by developments in modern science. May be taken on a CR/N basis. (3 hrs. lect. per week)

#### 200 History of Philosophy (To 1600) (3)

Prerequisite: "C" or higher in ENG 100

Western Philosophy from the Greeks to the Renaissance. (3 hrs. lect. per week)

#### 201 History of Philosophy (From 1600) (3)

Prerequisite: "C" or higher in ENG 100

Western Philosophy from Renaissance to present. (3 hrs. lect. per week)

#### 202 Introduction to Philosophy: Asian Tradition (3)

Universal themes and problems, with an emphasis on the Asian perspective. (3 hrs. lect. per week)

## 255 Cosmology: Science and the Human Prospect (3)

Prerequisite: ENG 100 OR placement in ENG 209-260

An interdisciplinary study of science and philosophy from a humanistic perspective. A scientific description of the Universe and its constituents and its implications for human life will be discussed. Also, the central philosophical problems of cosmology will be discussed: the problem of understanding the world — including ourselves, and our knowledge, as part of the world. (3 hrs. lect. per week)

## PHYSICS (PHYS)

#### 51V Technical Physics (1-4)

Prerequisite: MATH 20B & C & D OR placement in MATH 50/53

Introductory applied physics (computer-based). Subjects covered will vary with the student's major and may include measurements, simple machines, rotary motion, hydraulics and fluids, statics and equilibrium, force and motion, energy, thermodynamics and gases. Credit varies with student's major. (2 hours lecture/tutorial; 4 hours computer time per week) Length of course varies with number of credits.

#### 53 Fundamentals of Electricity (4)

Prerequisites: ENG 20B & C & D & E OR ESL 11 & 13 & 17 OR placement in ENG 22/60

MATH 24/50/53 OR placement in MATH 25/55

Fundamentals of AC and DC electricity. Topics include: physics of the electron; Ohm's law; electrical nomenclature; circuit laws and computations; electrical energy and power; magnetism and electromagnetic induction; chemical energy of batteries. (3 hrs. lect; 3 hrs. lab. per week)

#### 55 Metallurgy and Plastics (4)

Introductory lecture/lab course covering the basic science of metallurgy & plastics. Topics will vary with student's major. Topics include shop identification, classification, properties, structures effects & usage of metals & plastics in industry. (3 hrs. lect., 3 hrs. lab. per week)

#### 56 Basic Electrical Theory and Lab (4)

Prerequisite: MATH 24/50/53 OR placement in MATH 25/55

AMT, DIESL, and MARMR majors only. A comprehensive study of the fundamentals of electrical and electronic principles, covering basic laws that describe electrical phenomena to principles of semiconductor devices like transistors and diodes. Use of meters and oscilloscope are also covered. Course is designed for AMT, ABRP, DIESL and MARMR majors. (3 hrs. lect.; 3 hrs. lab. per week)

#### 100 Survey of Physics (3)

Corequisite: PHYS 100L

An introductory course in physics for the nonscience major, covering basic concepts and principles as related to everyday life, with emphasis on the interaction between society and physics—the most basic of all the sciences. (3 hrs. lect. per week)

#### 100L Survey of Physics Laboratory (1)

Corequisite: PHYS 100

Simple experiments in the basic concepts of physics, illustrating the role of physics in society to the nonscientist. (3 hrs. lab. per week)

#### 122 Introduction to Physical Sciences (4)

Science and modern society. A survey of physics, astronomy, chemistry, and geology, with greater emphasis on the first two disciplines. (3 hrs. lect.; 3 hrs. lab. per week)

#### 130 Introduction to Fiber Optics

Prerequisite: CENT 112 and CENT 113 and MATH 107 or MATH 135

This course serves as an introduction to both the theory and practice of fiber optics. It is intended for Computer or Electronics students. The course explores how fiber optics works, how it is being used, and what are its advantages and disadvantages. (3 hrs. lect.; 3 hrs. lab. per week)

## 151-152 College Physics (3-3)

151 Prerequisite: MATH 58 or 135 OR placement in MATH 140

152 Prerequisite: PHYS 151

Recommended Preparation for 152: MATH 140

151 Corequisite: PHYS 151L 152 Corequisite: PHYS 152L

A noncalculus, two-semester, transfer level course for preprofessional or nonengineering majors. Study of the basic concepts of physics, including fundamental principles, theories, and experimental methods in mechanics, thermodynamics, electricity, magnetism, optics, and modern physics. (3 hrs. lect. per week)

## 151L-152L College Physics Laboratory (1-1)

151L Corequisite: PHYS 151 152L Corequisite: PHYS 152

Lab for PHYS 151. (3 hrs. lab. per week)

## 170 General Physics I (4)

Prerequisite or Corequisite: MATH 206 OR placement in MATH 231

Mechanics of particles and rigid bodies; wave motion; thermodynamics and kinetic theory. (4 hrs. lect. per week)

## 170L General Physics I Lab (1)

Prerequisite or Corequisite: PHYS 170

A lab course designed to complement PHYS 170. (3 hrs. lab. per week)

#### 272 General Physics II (3)

Prerequisites: PHYS 170 and PHYS 170L

Corequisite: PHYS 272L

Electricity and magnetism; geometrical optics. (3 hrs. lect. per week)

#### 272L General Physics II Lab (1)

Prerequisite or Corequisite: PHYS 272

Experimental analysis in electricity and magnetism and optics. (3 hrs. lab. per week)

#### 274 General Physics III (3)

Prerequisites: PHYS 272 and 272L OR PHYS 152 and 152L

Prerequisite or Corequisite: MATH 231 OR placement in MATH 232

Relativity, introduction to quantum mechanics, atomic and nuclear physics,

physical optics. (3 hrs. lect. per week)

## **POLITICAL SCIENCE (POLS)**

#### 24 Issues of Hawaiian Politics (3)

A study of the major issues concerning contemporary Hawai'i politics at both the state and local level. This course includes a survey of problems involving political responsibility, political participation, civil liberties, and the role of governmental agencies and other political groups and organizations in the social and economic life of the community. Problems which students will face in their day-to-day life in the Hawai'i community will be emphasized. (3 hrs. lect. per week)

#### 110 Introduction to Political Science (3)

Prerequisite: Placement in ENG 22/60

An introduction to political problems, systems, ideologies and processes. (3 hrs. lect. per week)

#### 120 Introduction to World Politics (3)

Prerequisite: Placement in ENG 22/60

Power and contemporary world politics since 1945 with emphasis on the U.S.

role. (3 hrs. lect. per week)

#### 130 Introduction to American Politics (3)

Prerequisite: Placement in ENG 22/60

American political processes and institutions as seen through alternate interpretations. Emphasis on opportunities and limitations for practical political participation. May be taken on a CR/N basis. (3 hrs. lect. per week)

#### 171 Introduction to Political Futures (3)

Recommended Preparation: Placement in ENG 22/60

Introduction to political futures studies. Using science fact and fiction shows how past and present images of the future influence people's actions. May be taken on a CR/N basis. (3 hrs. lect. per week)

## 180 Introduction to Hawai'i Politics (3)

Prerequisite: Placement in ENG 100 Recommended Preparation: ENG 22/60

An examination of contemporary Hawai'i political institutions, processes, issues, and personalities at the State and County levels. Hawaii's place in the national and international political arenas, and the future of politics in Hawai'i. Emphasis is placed on citizen roles and responsibilities in local politics. (3 hrs. lect. per week)

#### 221 Problems of War and Peace (3)

Prerequisite: Placement in ENG 100 Recommended Preparation: ENG 22/60

Introduction to the contemporary socio-political dilemmas faced by political communities and individuals with respect to war, peace, and international conflicts. Includes questions of human nature, political economy, morality, genocide, terrorism, ethnic/religious violence, and alternatives to conflicts. (3 hrs. lect per week)

#### **PSYCHOLOGY (PSY)**

#### 100 Survey of Psychology (3)

Prerequisite: Placement in ENG 22/60

Principles of human behavior, individual differences, motivation, emotion, perception, learning, (3 hrs. lect. per week)

#### 170 Psychology of Adjustment (3)

Prerequisite: Placement in ENG 22/60

Understanding, evaluating and improving adjustment. Ideas and techniques concerning behavior change and personal growth. (3 hrs. lect. per week)

#### 180 Psychology of Work (3)

Prerequisite: Placement in ENG 22/60

Introduction to psychological aspects of work-related phenomena with emphasis on importance of human relations in work settings. Focuses on application of industrial organizational theory to understanding problems in worker morale, impression management, career assessment, organizational versus individual goals. (3 hrs. lect. per week)

#### 240 Developmental Psychology (3)

Prerequisite: PSY 100

Emotional, mental, physical, social development from infancy to adulthood; interests and abilities at different age levels. (3 hrs. lect. per week)

## 250 Social Psychology (3)

Prerequisite: PSY 100

Cognitive, behavioral and emotional effects of people: interpersonal relations, attribution, attitudes, group behavior, stereotypes, social roles, aggression, helping, self-concept; and applications. (3 hrs. lect. per week)

#### 260 Psychology of Personality

Prerequisite: PSY 100

Scientific study of personality, its meaning, assessment, development, and relation to cultural-social determinants. (3 hrs. lect. per week)

## QUANTITATIVE METHODS (QM)

#### 121 Mathematics for Decision Making I (3)

Prerequisite: "C" or higher in MATH 27 or 103 OR placement in MATH 135/QM 121

Precalculus mathematical operations related to business and economics; functions, equations and inequalities in one and two variables, interest formulas, systems of equations, matrix operations, linear programming. (3 hrs. lect. per week)

#### 122 Mathematics for Decision Making II (3)

Prerequisite: "C" or higher in QM 121 or in MATH 135 OR placement in MATH 140/QM 122

Applications of calculus to business and economics; limits, derivatives, definite integrals and indefinite integrals, partial derivatives, Lagrange multipliers. (3 hrs. lect. per week)

#### REFRIGERATION AND AIR CONDITIONING (RAC)

#### 20 Fundamentals of Refrigeration (5)

Corequisites: RAC 22L

RAC majors only. Principles of physics applicable to mechanical and absorption cycles. Heat energy, heat transfer, properties of matter, change of state, laws of gases, temperature-pressure relationship, thermodynamic principles in the mechanical cycle, compressors, condensers, receivers, refrigerant controls, evaporators and accessories. (5 hrs. lect. per week)

## 22L Refrigeration Laboratory I (5)

Corequisites: RAC 20

RAC majors only. Hand tools, fasteners, special refrigeration tools, tube bending, flaring, soldering, compressor, overhaul, condensing unit overhaul, refrigeration system construction, operation, test and repair. (15 hrs. lab. per week)

## 23 Advanced Refrigeration (5)

Prerequisite: RAC 20

Corequisites: RAC 24L and 27

RAC majors only. Commercial systems: application, installation, servicing, heat loads and piping. Absorption principles and special refrigeration devices and application. (5 hrs. lect. per week)

## 24L Refrigeration Laboratory II (5)

Prerequisite: RAC 22L

Corequisites: RAC 23 and 27

RAC majors only. A continuation of RAC 22L. Advanced maintenance, trouble-shooting and repair of domestic and commercial units. (15 hrs. lab. per week)

#### 27 Electrical Fundamentals I (5)

Prerequisites: RAC 20 and 22L Corequisites: RAC 23 and 24L

RAC majors only. A course designed to introduce students to the concepts, theories and application of electricity as they apply to refrigeration and air conditioning. (5 hrs. lect. per week)

#### 28 Electrical Fundamentals II (5)

Prerequisite: RAC 27

Coreguisites: RAC 41 and 42L

*RAC majors only.* This course is the second half of a one-year course in electrical fundamentals. Topics include motors, control devices, control systems and troubleshooting. (5 hrs. lect. per week)

#### 41 Psychometry and Cooling Load (5)

Prerequisite: RAC 23

Corequisites: RAC 28 and 42L

RAC majors only. Chemistry of air, air and human comfort, psychrometric properties of air, the psychrometric chart, problems for the conditioned air supply, conduction, solar transmission, occupancy and equipment heat gains and losses, coil load and total air supply. (5 hrs. lect. per week)

## 42L Air Conditioning Machinery Lab I (5)

Prerequisite: RAC 24L

Corequisites: RAC 28 and 42L

RAC majors only. Equipment installation, check-out and start-up procedures. Routine maintenance procedures, field work on campus installation and operations of a maintenance shop. (15 hrs. lab. per week)

#### 43 Air Distribution and Air Conditioning Systems (5)

Prerequisite: RAC 42L Corequisite: RAC 44L

RAC majors only. Duct sizing, duct devices, system design, system balance, control systems, double-duct systems, hydraulic systems, centrifugal systems, and heat pumps. (5 hrs. lect. per week)

## 44L Air Conditioning Machinery Lab II (5)

Prerequisite: RAC 42L Corequisite: RAC 43

*RAC majors only.* A continuation of RAC 42L. Advanced maintenance, trouble-shooting, system balance, control setup, water testing and engineering studies on central station chill water air conditioning system and operation of a maintenance shop. (15 hrs. lab. per week)

## 93V Cooperative Education (1-4)

Instructor approval required. RAC majors only. This course will provide the student with the opportunity to acquire on-the-job experience in conjunction with classroom and laboratory instruction in Refrigeration and Air Conditioning. Students may enroll 4 times for credit up to a maximum of 12 credits. (5 hrs. work experience per week per credit)

#### **RELIGION (REL)**

#### 150 Introduction to the World's Major Religions (3)

Recommended Preparation: Placement in ENG 22/60

Introduction to the world's living religions: Hinduism, Buddhism, Shintoism, Confucianism, Taoism, Judaism, Christianity, Islam. (3 hrs. lect. per week)

#### 151 Religion and the Meaning of Existence (3)

Recommended Preparation: Placement in ENG 22/60

Introduction to basic ideas and issues of contemporary religious thought related to the question: "What is the meaning of existence?" May be taken on a CR/NC basis. (3 hrs. lect. per week)

#### 200 Understanding the Old Testament (3)

Recommended Preparation: Placement in ENG 22/60

Study of developing beliefs and practices of Hebrew religion as set forth in the Old Testament. Emphasis on meaning of its faith for the modern world. (3 hrs. lect. per week)

#### 201 Understanding the New Testament (3)

Recommended Preparation: Placement in ENG 22/60

Origin and development of early Christian message as set forth in New Testament, with special attention to Jesus and Paul. (3 hrs. lect. per week)

#### 203 Understanding Chinese Religions (3)

Recommended Preparation: Placement in ENG 22/60

Taoist, Confucian, Buddhist, Maoist and folk beliefs and practices in social and historical context. (3 hrs. lect. per week)

#### 204 Understanding Japanese Religions (3)

Recommended Preparation: Placement in ENG 22/60

A survey of major aspects of Japanese religion including Shinto, Buddhism and modern new religions. The various traditions will be viewed within their historical and social contexts. Emphasis will be placed on issues of contemporary significance. (3 hrs. lect. per week)

## 205 Understanding Hawaiian Religion (3)

Recommended Preparation: Placement in ENG 22/60

Major Hawaiian religious teachings and practices from ancient times to the present. Cultural influence of Hawaiian religious beliefs; analysis of religious texts. Relation to other traditions of Oceania and to Christianity. (3 hrs. lect. per week)

## 207 Understanding Buddhism (3)

Recommended Preparation: ENG 22/60 OR placement in ENG 100 Survey of major forms and practices. (3 hrs. lect. per week)

## 210 Understanding Christianity (3)

Recommended Preparation: Placement in ENG 22/60

History of Ideas concentrating on those events, persons, and issues which have had the greatest impact on the evolution of Christianity. May be graded on a CR/NC basis. (3 hrs. lect. per week)

## SCIENCE (SCI)

#### 60 Introduction to Materials Science (4)

This course introduces the student to the basic understanding of the chemical and physical principles underlying the nature and behavior of materials. It seeks to give answers to questions such as why glass is transparent and brittle while steel is opaque and strong, or why copper conducts heat and electricity while plastic and rubber do neither but are elastic. (3 hrs. lect.; 3 hrs. lab. per week)

#### 101 Environmental Science (3)

This course will introduce students into principles of ecology and ecosystem dynamics in order to understand how our biosphere works and how the environmental pollution deteriorates the delicate balance of nature. A survey will be made on all current pollution problems resulting from over-population, urbanization and technology that use our finite natural energy resources and produce excessive amount of wastes. The course will also analyze current national and international policies developed to curb all environmental pollution problems. (3

hrs. lect. per week)121 Introduction to Science — Biological Sciences (4) Scientific approaches, life characteristics, ecological principles, people and environment, science and society. (3 hrs. lect.; 3 hrs. lab. per week)

#### 122 Introduction to Physical Sciences (4)

Science and modern society. A survey of physics, astronomy, chemistry, and geology, with greater emphasis on the first two disciplines. (3 hrs. lect.; 3 hrs. lab. per week)

#### 193V Cooperative Education (1–4)

Instructor approval required. This course will provide the student with the opportunity to acquire on-the-job experience related to classroom and laboratory instruction in Science. Students may enroll 4 times for credit up to a maximum of 12 credits. (5 hrs. work experience per week per credit)

#### SHEET METAL AND PLASTICS TECHNOLOGY (SMP)

#### 20 Hand Tool and Machine Processes (4)

Corequisites: SMP 21 and 22 and 23

SMP majors only. Develop skills and safety practices in the use of hand tools and machines. The techniques of soldering, drilling, punching, riveting, seaming, and other tools and machine operations. The characteristics and uses of sheet metal, supplies, fastening devices and plastics. (2 hrs. lect.; 6 hrs. lab. per week)

#### 21 Shop Problems (3)

SMP majors only. To provide the student with the essential principles and concepts related to sheet metal work to enable him/her to understand and solve everyday problems encountered in the shop. The student will develop the necessary skills and knowledge through the study and practice of actual sheet metal shop problems using terminologies and standards in current use throughout the country. (3 hrs. lect. per week)

## 22 Fabrication Processes (Architectural) (4)

Corequisites: SMP 20 and 21 and 23

SMP majors only. Emphasis on variously shaped gutters, gutter miters, hangers, flashing of all types, downspout, expansion joints and other similar work. Standard installation practices. (2 hrs. lect.; 6 hrs. lab. per week)

## 23 Introduction to Surface Development (2)

Corequisites: SMP 20 and 21 and 22

SMP majors only. Construction of geometrical figures. Concept of multi-view drawings and the planes of projection. Principles of parallel and radial line development and triangulation. Simple patterns. (1 hr. lect., 3 hrs. lab. per week)

## 24 Advanced Fabrication Processes (Architectural) (4)

Prerequisite: SMP 23

Corequisites: SMP 25 and 26

*SMP majors only.* Skills in the fabrication of mitered transitional roof jacks, cornices, skylights, louvers, roof ventilators and complex roofing seams. Different methods of installation. (2 hrs. lect.; 6 hrs. lab. per week)

## 25 Air Conditioning Fabrication (4)

Corequisites: SMP 24 and 26

SMP majors only. Training in fabricating air conditioning and ventilating duct work. Seams, locks, hangers, fastening devices, vaned turned elbows and other basic fittings that are commonly used. Standard installation practices. (2 hrs. lect.; 6 hrs. lab. per week)

#### 26 Pattern Development I (2)

Coreguisites: SMP 24 and 25

SMP majors only. Patterns for various types of transitions. Square to round, oval to round and other fittings in this area. Patterns for the basic fittings that are commonly used. Standard installation practices. (1 hr. lect., 3 hrs. lab. per week)

#### 41 Advanced Air Conditioning Fabrication (4)

Prerequisite: SMP 26

SMP majors only. Fabrication of complex fittings in both high and low velocity air conditioning systems. Various types of reinforcing and transverse seams, sealants and insulation. (2 hrs. lect.; 6 hrs. lab. per week)

#### 43 Pattern Development II (2)

Prerequisite: SMP 26

SMP majors only. In this course patterns are developed for low, medium and high pressure air conditioning systems. Patterns for fittings used in blow pipe work are included in this course. (1 hr. lect., 3 hrs. lab. per week)

#### 44 Blow Pipe Fabrication (4)

Prerequisite: SMP 43

SMP majors only. The emphasis is on round work in such areas as blow pipe, air conditioning duct, and ventilation systems. Included in this course is the fabrication of canopies and hoods for machines. (2 hrs. lect.; 6 hrs. lab. per week)

## 45 Advanced Fabrication (General) (4)

Prerequisite: SMP 41

Corequisites: SMP 44, 46 and 49

SMP majors only. The emphasis of this course is on fabricating complex work in all areas of sheet metal. Field trips to shops that specialize in kitchen equipment; spiral pipe and other specialty shops are part of this course. (2 hrs. lect.; 6 hrs. lab. per week)

## 46 Pattern Development III (2)

Prerequisite: SMP 43

*SMP majors only.* Pattern development, emphasizing complex, intersecting problems and short-cut methods that are practical in industry. (1 hr. lect., 3 hrs. lab. per week)

## 49 Advanced Shop Problems (2)

Prerequisite: SMP 21

*SMP majors only.* To provide the second-year sheet metal majors with the specialized technical knowledge and problem solving techniques to be able to understand and find effective solutions to advanced shop problems expected to be encountered in the sheet metal industry. (2 hrs. lect. per week)

#### 93V Cooperative Education (1-9)

Instructor approval required. SMP majors only. This course will provide the student with the opportunity to acquire on-the-job experience related to classroom and laboratory instruction in Sheet Metal and Plastics. Students may enroll 4 times for credit up to a maximum of 12 credits. (5 hrs. work experience per week per credit)

#### SOCIAL SCIENCES (SSCI)

#### 120 Hawai'i's People (3)

A survey of ethnic subcultures in America, with emphasis on Hawai'i's ethnic mosaic. The critical framework covers dominant-subordinate relationships in both a historical and modern setting. The processes of prejudice, discrimination, identity, cyclical patterns of ethnic relations, acculturation, assimilation, contention, submission, revitalization and the psychology of racism will be applied to the major ethnic minorities of Hawai'i. (3 hrs. lect. per week)

#### 125 Pacific Island Peoples (3)

Recommended Preparation: ENG 22/60 OR placement in ENG 100

This course is a survey of Pacific Island Societies, using social science perspectives to analyze the effects of environmental constraints, cultural tradition, historical experience, political and economic development, and social change upon the peoples of Melanesia, Micronesia, and Polynesia. It will give students an understanding of the major problems and alternative futures which Pacific island communities now face. (3 hrs. lect. per week)

## 193V Cooperative Education (1-4)

Instructor approval required. This course will provide the student with the opportunity to acquire on-the-job experience related to classroom and laboratory instruction in the Social Sciences. Students may enroll 4 times for credit up to a maximum of 12 credits. (5 hrs. work experience per week per credit)

## 220 Japanese-American Studies (3)

A survey of Japanese-American experience, with particular emphasis on the application of social theory to analyze the frustration, anxiety, resolve, depression, success, failure, and inspiration of the Japanese Americans of Hawai'i. (3 hrs. lect. per week)

## 221 Hawaiian-Americans (3)

The course is designed to give the individual an understanding of Hawaiians and their sociocultural world. Significant contributions of the anthropological, demographic, political, psychological and sociological perspectives will be utilized to present a holistic social science approach. Topics covered include the group position of Hawaiians in the class structure, learning strategies, family structure, lifestyle, land issues, and political and cultural revitalization. (3 hrs. lect. per week)

### 225 Filipino-American Studies (3)

An analysis of the history, culture, and major problems of the Filipino-American community, with special emphasis on Hawai'i. The course covers the process of immigration, cultural transition and acculturation, family and social organizations, educational problems and achievements, housing and job availability, and conflict with existing ethnic communities. A historical analysis of the transition from plantation paternalism to urban competition will also be included. (3 hrs. lect. per week)

#### 250 Gender and Society (3)

An introduction to social socience perspectives and research findings on the effect of sex/gender roles on individuals, their communities and larger social institutions such as family, education, employment and government. (3 hrs. lect. per week)

#### SOCIAL SERVICES (SOSE)

#### 21 Family Dynamics and the Social Work Interview (3)

Provides an introductory overview of social work and the roles of paraprofessionals. Focuses on understanding family dynamics and on developing basic social work interviewing skills. (3 hrs. lect. per week)

#### 22 Social Work with Groups (3)

Relates social work group principles and practice for practical application for paraprofessionals in human services programs. Previous and/or current group work experience is helpful. (3 hrs. lect. per week)

#### 51 Practicum Seminar (1)

Corequisites: SOSE 91V

This seminar course provides an opportunity for students to discuss problems experienced in work practicum and to develop counseling, guidance, problemsolving, and evaluation competencies. This course may be repeated. Students must be concurrently enrolled in SOSE 91V Work Practicum (1 credit). (1 hr. lect. per week)

## 55 Individual Counseling (3)

Focuses on developing basic individual counseling and problem-solving skills, potential and limitations of paraprofessionals in counseling. (3 hrs. lect. per week)

#### 91V Work Practicum/Community Service (1-3)

Supervised work experience. Individualized in-service training in community service. May be repeated until 9 credits are earned. Responsibilities increase with each repeat. Concurrent enrollment in SOSE 51 (Practicum Seminar) is recommended. (1 cr.-5 hrs.; 2 cr.-10 hrs.; 3 cr.-15 hrs. per week for practicum)

## 270 Substance Abuse Counseling (3)

Prerequisite: SOSE 55 and ENG 22 or higher or consent of the instructor Designed for people interested in pursuing work as a substance abuse counselor. Covers physical, psycho-social effects of substance abuse; screening, assessment, counseling, and referral skills; and ethical and legal issues. (3 hrs. lect. per week)

## SOCIAL WORK (SW)

#### 200 The Field of Social Work (3)

Prerequisite: ENG 22/60 OR placement in ENG 100

Orientation to the profession of social work; the nature and scope of social work, historical development, values and philosophy, methods of practice, and selected fields of practice. (3 hrs. lect. per week)

## SOCIOLOGY (SOC)

#### 22 Introduction to Marriage and Family (3)

This is a course about you, sex, love, dating, marriage and family formation. It will help you understand yourself, your relationship with others whether they are your parents, your friends, or your children. It will help you understand where our values about family life come from and where the family is going as an institution. What does the increasing divorce rate mean, and what effects will such life styles as "living together" and "communalism" have on family life? Finally, the class will talk about your situation in your family and give you the ability to place your experiences in a sociological perspective. (3 hrs. lect. per week)

#### 100 Survey of General Sociology (3)

Prerequisite: Placement in ENG 22/60

Basic social relationships, norms, social structures and processes affecting social change. (3 hrs. lect. per week)

#### 200 Introduction to the Principles of Sociology (3)

Introduction to basic theory, methods and analytic techniques used in sociology. (3 hrs. lect. per week)

#### 214 Introduction to Race and Ethnic Relations (3)

Prerequisite: "C" or higher in ENG 100

This course will acquaint the student with the problems and dynamics of race and ethnic relations in comparative local, national, and world perspectives. Theory and research related to the social, economic, and political problems of ethnic and racial groups, and their existence and accommodation within societies will be reviewed and analyzed. (3 hrs. lect. per week)

#### 218 Introduction to Social Problems (3)

Prerequisite: ENG 22/60 OR placement in ENG 100

Introduction to social problems will acquaint the student with the variety of social problems facing our society today. Local social problems will be emphasized. Sociological research and theories related to crime and delinquency, drug and alcohol abuse, sexual deviance, ethnic relations, economic disruption and unemployment, social consequences of sexism, and family disorganization will be discussed and students will be required to conduct a small research project in a selected area. (3 hrs. lect. per week)

## 231 Introduction to Juvenile Delinquency (3)

Prerequisite: ENG 22/60 OR placement in ENG 100

Forms of juvenile deviance; conditions and processes that result in the alienation and deviance of youth. Juvenile corrections as an institutionalized societal response. May be taken on a CR/N basis. (3 hrs. lect. per week)

#### 251 Introduction to Sociology of the Family (3)

Prerequisite: ENG 22/60 OR placement in ENG 100

Family patterns, mate selection, parent-child interaction, socialization of roles, legal sanctions, and current trends in family organization and functions. (3 hrs. lect. per week)

#### SPANISH (SPAN)\*

#### 101-102 Elementary Spanish I-II (4-4)

101 Prerequisite: ENG 20B & C & D & E OR ESL 11 & 13 & 17 OR placement

in ENG 22/60

102 Prerequisite: SPAN 101

Development of listening, speaking, reading, writing. Drill and practice empha-

sized. Laboratory work required. (4 hrs. lect. per week)

#### 201-202 Intermediate Spanish I-II (3-3)

201 Prerequisite: SPAN 102 202 Prerequisite: SPAN 201

Continuation of oral practice and grammar study; increasing emphasis on read-

ing and written composition. Laboratory drill. (3 hrs. lect. per week)

\*Native speakers may not take language courses for credit.

#### SPECIAL STUDIES

See Special Courses, Special Studies.

## SPEECH (SP)

#### 20 Speech Communication (3)

Recommended Preparation: Placement in ENG 22/60

Designed for students interested in basic speech. Emphasis will be based on developing self-confidence, poise, and oral fluency in practical situations where communication is important. (3 hrs. lect. per week)

## 50 Working with Clients (3) (Formerly COMUN 50)

Prerequisite: ENG 20B & D & E OR ESL 11 & 13 & 17 OR placement in ENG 22/60

Corequisites: COSME 20 and 21L

COSME majors only. Includes knowledge and skills in communicating with and helping people in professional and personal relationships. Techniques of communicating and helping will be discussed and practiced in class. (3 hrs. lect. per week)

## 151 Personal and Public Speech (3)

Recommended Preparation: Placement in ENG 22/60

This basic course introduces students to the principles of communication. In addition to discussing theoretical materials, students have opportunities to experience speech in a variety of informal and formal activities, including person-toperson, small group, and public address situations. (3 hrs. lect. per week)

#### 200 Speaking Skills for Prospective Teachers (3)

Recommended Preparation: Placement in ENG 22/60

Theory and activities for competence in the speaking skills useful in the class-room, especially interview, discussion and lecture. (3 hrs. lect. per week)

### 251 Principles of Effective Speaking (3)

Prerequisite: SP 151 OR "C" or higher in ENG 100

Designed to help students prepare and present speeches; the steps necessary and the rhetorical theory behind public speaking. (3 hrs. lect. per week)

## 253 Argumentation and Debate (3)

Prerequisite: SP 151

Argument as a technique in the investigation of social problems; formal and informal practice in the use of evidence, proof, refutation, and argument. (3 hrs. lect. per week)

#### STUDENT DEVELOPMENT (SD)

#### 20B Career Decision Making (1) (Formerly SD 85B)

Prerequisite: ENG 20 OR placement in ENG 20B & C & D & E

Personal evaluation of interests, skills, values and personality traits as a basis for self-awareness in career/life planning and decision making. Must be taken on a CR/N basis (1 hr. lect. per week)

## 20C Work Exploration (1) (Formerly SD 85C)

Prerequisite: ENG 20 OR placement in ENG 20B & C & D & E

Exploration of occupations utilizing experiences such as field interviews, career shadowing, guest speakers and "hands-on" activities in the use of tools and instruments. (1 hr. lect. per week)

#### 20D Job placement (1) (Formerly SD 90C)

Prerequisite: ENG 20 OR placement in ENG 20B & C & D & E

Preparation for job seeking through the development of job search skills and job retention skills. Module will include training in application procedures, interviewing, resume and letter writing and competitive job placement. Designed for all job seekers regardless of work history or experience. Must be taken on a CR/N basis. (1 hr. lect. per week)

# 21 Orientation to College (1)

Prerequisites: ENG 20 OR placement in ENG 20B & C & D & E

Orientation to college life. This course focuses on information, skills and attitudes needed for a successful college career. Must be taken on a CR/N basis.

(1 hr. lect. per week)

# 85 Career/Life Planning (3)

Prerequisite: ENG 20 OR placement in ENG 20B & C & D & E

A course utilizing a variety of processes to assist in the formulation and attainment of career goals. Students have the opportunity to evaluate their interests, skills, personality traits and values as a basis for occupational choice. Students are exposed to a variety of occupations and are made aware of labor market trends and projections. Effective job search skills, interview techniques, and resume writing are covered. (3 hrs. lect. per week)

# 95 Confirming Your Major (1)

Prerequisite: ENG 20 OR placement in ENG 20B & C & D & E

This course is designed to assist students in confirming their selected majors. With the guidance of a career counselor, students explore program and career realities on an individualized basis. Graded on a CR/N basis. (1 hr. individualized instruction per week)

#### TAGALOG (TAG)

See FILIPINO (FIL)

### THEATRE (THEA)

#### 101 Introduction to Drama and Theatre (3)

Prerequisite: Placement in ENG 22/60

Representative plays studied as illustrative of changing forms in the theatre and dramatic literature. (3 hrs. lect. per week)

#### 201 Introduction to the Art of the Film (3)

Recommended Preparation: Placement in ENG 22/60

Introduction to aesthetic aspects of silent and sound movies. Technical subjects analyzed only as they relate to theme and style. (3 hrs. lect. per week)

# WELDING (WELD)

#### 16 Welding for AMT Majors (1)

Introduction to oxyacetylene welding and cutting, MIG welding, and Plasma arc cutting. Safe work practices, proper care and use of equipment, and welding terminology will be covered. (2 hrs. lect. per week)

#### 18 Introduction to Metal Sculpture (3)

Theory and practices of gas and electric welding toward practical application to creative designs. (2 hrs. lect.; 3 hrs. lab. per week)

#### 19 Welding for Trades and Industry (3) (For Non-majors)

Comment: Can be substituted for WELD 17B and/or WELD 17C Introduction to the various methods of welding, including electric, oxyacetylene, and oxyacetylene cutting. Cross-listed with IEDW 102 (6 hrs. lab. per week)

# 21 Hand and Shop Tools (2)

WELD majors only. Instruction in the care and use of hand and power tools. Safe operation of metal shears, abrasive cutters, sanders, grinders, and hydraulic benders. (1 hr. lect.; 3 hrs. lab. per week)

#### 52 Introduction to Arc I (3)

Prerequisite or Corequisite: BLPR 22 WELD majors only. Fundamentals of oxyacetylene and arc welding. Proper use and operation of oxyacetylene equipment. Operation and use of various types of welding machines. Electrode identification and arc welding terminology. Welding on carbon steel in the flat fillet position. (20 hrs. lect. per week)

# 54 Introduction to Arc II (2)

Prerequisite: WELD 52

WELD majors only. Introduction to the horizontal position. Single and multi-pass fillet welding on carbon steel using E6010 or E6011, and E7018 electrodes. (20 hrs. lect. per week)

# 55 Computations with Smoley Tables (3)

Prerequisite: MATH 20B & C & D OR placement in MATH 24/50

An introduction to the use and application of the Smoley Tables by the carpentry and ironworker trades. The Smoley tables will be used to determine slopes, rises, rivet spacing, bevels, circumferences, squaring and decimal equivalents in designing and constructing trusses, rafters, railings, stairs, and other structural layouts. (3 hrs. lect. per week)

#### 56 Introduction to Arc III (2)

Prerequisite: WELD 54

WELD majors only. Introduction to the vertical position. Single and multi-pass fillet welding on carbon steel using E6010 or E6011, and E7018 electrodes. (20 hrs. lect. per week)

#### 58 Introduction to Arc IV (2)

Prerequisite: WELD 56

WELD majors only. Introduction to the overhead position. Single and multi-pass fillet welding on carbon steel using E6010 or E6011, and E7018 electrodes. (20 hrs. lect. per week)

#### 60 Advanced Arc Welding I (2)

Prerequisite: WELD 58

WELD majors only. Single and multi-pass groove welding, on carbon steel, using E7018 electrodes. Welding to be done in the 1G (flat) and 2G (horizontal) positions. (20 hrs. lect. per week)

#### 62 Advanced Arc Welding II (3)

Prerequisite: WELD 60

WELD majors only. Single and multi-pass groove welding on carbon steel using E7018 electrodes. Welding to be done in the 3G (vertical up) position. Limited thickness Guided Bend Test will be administered. (20 hrs. lect. per week)

#### 64 Advanced Arc Welding III (3)

Prerequisite: WELD 62

WELD majors only. Single and multi-pass groove welding on carbon steel plate using E7018 electrodes in the 4G (overhead) position. Limited thickness Guided Bend Test will be administered. (20 hrs. lect. per week)

#### 66 Plasma and Air Carbon Arc Cutting (1)

WELD majors only. Care and safe use of plasma and air carbon arc cutting process will be covered. Cutting operations will be done on carbon steel, aluminum, and stainless steel. (2 hrs. lect. per week)

#### 68 Blueprint Reading for Welders (3)

Prerequisite: BLPR 22

WELD majors only. A basic course in blueprint interpretation designed primarily for Welding Technology majors. Emphasis will be placed on welding symbols and their significance. Basic instruction in structural shapes and estimating will also be covered. (3 hrs. lect. per week)

# 70 Oxyacetylene Welding I (2)

WELD majors only. Care and use of oxyacetylene equipment. Fusion welding on steel in the flat and horizontal positions. (20 hrs. lect./lab. per week)

#### 72 Oxyacetylene Welding II (2)

WELD majors only. Care and use of oxyacetylene equipment. Braze welding on steel in the flat and horizontal positions. (20 hrs. lect./lab. per week)

# 74 TIG Welding I (2)

WELD majors only. Theory, practice and application of the TIG welding process. Welding of carbon steel and stainless steel. (20 hrs. lect./lab. per week)

#### 76 TIG Welding II (2)

WELD majors only. Theory, practice and application of the TIG welding process in the welding of aluminum (20 hrs. lect./lab. per week)

#### 78 Fabrication Techniques (4)

WELD majors only. Introduction to the layout and fabrication of welded structures, jigs, and fixtures. Interpretation and practical applications of blueprints and sketches. Miter cuts and the identification and processing of metals. (8 hrs. lect./lab. per week)

# 80 Gas Metal and Flux Cored Arc Welding (5)

WELD majors only. Theory, practice, and applications of Gas Metal and Flux Cored Arc Welding processes including safety and manipulative skills. Welding of carbon steel and aluminum. (9 hrs. lect./lab. per week)

#### 82 Welding Inspection and Testing Principles (1)

Weld majors only. Introduction to welding codes and qualifications. Visual, destructive, and nondestructive methods will be covered. (2 hrs. lect./lab. per week)

#### 84 Advanced Fabrication Techniques (4)

WELD majors only. Emphasis on the use of various types of equipment together with the interpretation of blueprints and sketches to perform practical work assignments. (8 hrs. lect./lab. per week)

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

Instructor approval required. WELD majors only. This course will provide the student with the opportunity to acquire on-the-job experience related to classroom and laboratory instruction in Welding. Students may enroll 4 times for credit up to a maximum of 12 credits. (5 hrs. work experience per week per credit)

#### WOMEN'S STUDIES (WS)

#### 151 Introduction to Women's Studies (3)

Prerequisite: Placement in ENG 22/60

This is an introduction to Women's Studies, an interdisciplinary study of the world of women. The concept of gender permits the examination of various facets of women and men's experiences, corrects misconceptions and assists thinking about the future of women. (3 hrs. lect. per week)

#### 218 Survey of Women and Work (3)

Prerequisites: ENG 22/60 OR placement in ENG 100

Recommended Preparation: ECON 120 or SOC 100 or WS 151

Survey of historical and contemporary issues in women's work, with an emphasis on U.S. labor history. Impact of gender, race and class on workplace conditions and issues. (3 hrs. lect.)

#### 275 Women in Art (3)

Prerequisite: ENG 100 OR placement in ENG 209-260 AND (WS 151 and ART 101 and (SOC 100 or PHIL 100)

An interdisciplinary survey of the role of women as subject/object in the visual arts, their activity as creators of art and as participants in the art world. This course is cross-listed as ART 275, and credit may be received for only WS 275 OR ART 275 but not both. (3 hrs. lect. per week)

# WORK CYCLE (WORK)

#### 94V Federal Work Cycle (1–12)

Instructor approval required. Acceptance in Federal Coop Ed Program required. This course is for students accepted in a Federal Cooperative Education program. During the Work Cycle, students are assigned work experiences related to academic studies or career goals. Students may enroll 6 times for credit with instructor approval, up to a total of 24 credits. (5 hrs. work experience per week per credit)

## WORD PROCESSING (WPRO)

#### 20 Keyboarding (1)

Prerequisites: ENG 20B & C & D & E OR ESL 11 & 13 & 17 OR placement in ENG 22/60

A course to develop skills on the computer keyboard including alphabets, numbers, and symbols as applicable to computer terminals, word processors, and keypunch machines. To be taken CR/N. Recommended for non-Business majors. (3 hrs. lect./lab. over 5 weeks)

#### ZOOLOGY (ZOOL)

### 101 Principles of Zoology (4)

Living animals, their structure, physiology, development, reproduction, evolution, habits, ecology, and their relationship to other living organisms and the environment. (3 hrs. lect.; 3 hrs. lab. per week)

#### 141-141L Human Anatomy and Physiology I (3-1) (formerly ZOOL 240)

Prerequisites: College Chemistry and one course in college Biology or Zoology

The structure and function of the human body which includes the study of its embryology, gross anatomy, micro-anatomy, physiology, pathology, and homeostatic relationships. (Part I) (3 hrs. lect.; 1 hr. lab. per week)

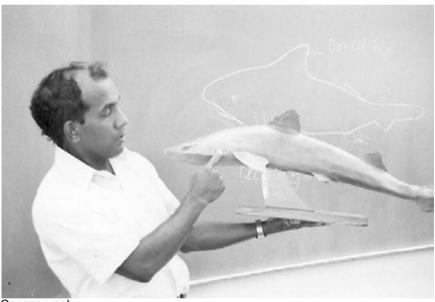
# 142-142L Human Anatomy & Physiology II (3-1) (formerly ZOOL 241)

Prerequisites: ZOOL 240 OR ZOOL 141 and ZOOL 141L

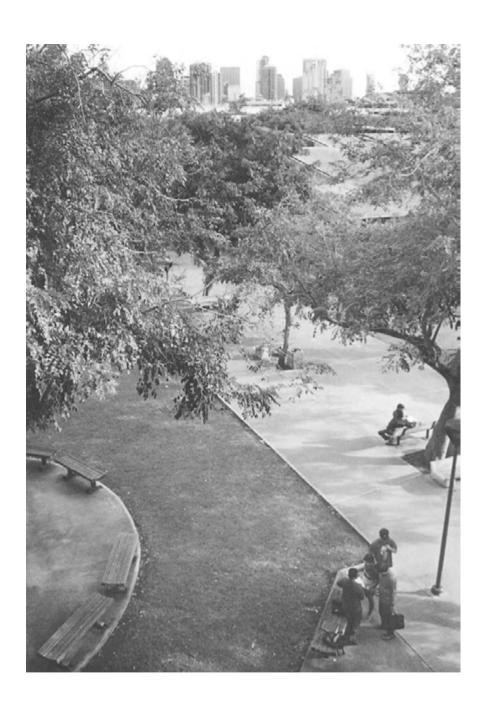
The structure and function of the human body which includes the study of its embryology, gross anatomy, micro-anatomy, physiology, pat hology, and homeostatic relationships. (Part II) (3 hrs. lect.; 1 hr. lab. per week)

# 200 Marine Biology (3)

Lectures in this course provide an introduction to the marine flora and fauna, including those of the Hawaiian waters. A knowledge of the physical, biological and ecological characteristics of the marine environment is important for understanding the life systems of the ocean. The course will cover coral reef organisms, deep sea life, fisheries, farming the ocean, marine resources and the effects of pollution on marine life. (2 hrs. lect.; 3 hrs. lab. per week) See also OCEANOGRAPHY.



Oceanography



# **Excellence in Teaching Award Recipients**



Bob Eddinger Biology, 1975



Terry Haney Humanities, 1977



Doric Little Speech, 1980



Beng Poh Yoshikawa The Learning Center, 1987



David Cleveland Sociology, 1988



Ronald Pine Logic & Philosophy of Science, 1990



James Niino Counseling, 1991



Frank Mauz Mathematics, 1992



Cynthia Smith History, 1994



Kathleen Kamakaiwi Cosmetology, 1995



Tom Mikulski Electrical Installation & Maintenance Technology, 1996



Muriel Fujii English, 1997



Craig Ohta
Automotive Mechanics
Technology, 1998



Clifford Yamashiro Automotive Mechanics Technology, 1999



Rick Ziegler Humanities, 2000



Robert Vericker
Administration of Justice,
2001



Aaron Tanaka Computing, Electronics, & Networking Technology, 2002

# Administration

# University of Hawai'i Board of Regents

Byron Bender Charles K. Kawakami Walter Nunokawa
Everett R. Dowling Duane K. Kurisu Edward Sultan
Shelton Jim On Catherine Lagareta Alvin Tanaka
Trent Kakuda Patricia Y. Lee Myron Yamasato

### University of Hawai'i Central Administration

Evan S. Dobelle President, University of Hawai'i

Walter Kirimitsu

Deane Neubauer

Pete Englert

Rose Tseng

Joyce S. Tsunoda

Chief of Staff and University General Counsel
Interim Vice President for Academic Affairs
Chancellor, University of Hawaii at Manoa
Chancellor, University of Hawai'i at Hilo
Vice President for International Development

William Pearman Chancellor, UH-West O'ahu

James "Wick" Sloane Vice President for Administration and Chief Financial

Officer

Paul Costello Vice President for External Affairs and University

Relations

Colleen O. Sathre Vice President for Planning and Policy
Doris China Vice President for Student Affairs

Elizabeth Sloane President, University of Hawai'i Foundation

# Honolulu Community College Administration



Front (I. to rt.) Kathy Jaycox, Executive Director of United for Learning Hawaii P-20 Initiative; Janice Petersen, Dean of University College; Sharon Ota, Dean of Academic Affairs; Harriet Miyasaki, Director of Management Information and Research. Back (I. to rt.) Ralph Hiatt, Director of Pacific Aerospace Technology Center; on Bourassa, Director of Pacific Center for Advanced Technology Training; Chad Taniguchi, Dean of Transportation and Trades; Theron Craig, Dean of Student Services; Ramsey Pedersen, Chancellor; Ken Kato, Director of Administrative Services; Dallas Shiroma, Dean of Communications and Services.

ADMINISTRATION 259

# College Executive Advisory Committee

To insure the future viability of our training programs it is essential for HCC to work closely with industry in the State. Only through the active support of employers can the college hope to keep pace with rapidly changing training needs. The Executive Advisory Committee provides the crucial input required to guide the College in the design of new training programs, as well as the modification of existing training programs, to meet both the current and future needs of industry in the State of Hawaii and in our nation as a whole.

#### William F. Anonsen

Vice President Maritime Affairs & Training American-Hawai'i Cruises

#### Momi Cazimero

President Graphic House, Inc.

#### Lloyd Char

Retired Businessman

# William Emmsley

SSPA

#### Eric Fukunaga

President & CEO Servco Pacific, Inc.

#### Michael I. Goodish

Vice President

Networking and Technical Quality,

Oceanic Cable

#### Dan Ishii

Vice Chancellor
University of Hawai'i Community Colleges

#### Gary Kai

President and CEO
Continental Pacific Mortgage

#### Peter R. Kessinger, Ph.D.

Retired Provost

#### Kent Leong

Account Manager Cisco Systems, Inc.

#### Fujio Matsuda, Sc.D.

Chairman, President, and CEO PICHTR

# Glenn K. Miyataki, Ph.D.

President JAIMS

#### Fred Moore

Vice President and General Manager
HSI Mechanical

#### Karen Nakamura

Executive Vice President
Building Industry Assn. of Hawai'i

#### Carol Pregill

President
Retail Merchants of Hawai'i

#### Scott Seaburn

President
Advanced Design Systems

# **Clint Taylor**

**Taylor Associates** 

# Tin Myaing Thein, Ph.D.

Executive Director
Pacific Gateway Center

#### Ron Wright

Managing Director Sales & Marketing, Hawai'i, Continental Airlines, Inc.

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| PANISNICK, G. David Prof, CC, Religion/Philosophy B.A., M.A., Ph.D., University of Hawai'i at Manoa; M.R.E., B.D., Pacific School of Religion, Berkeley. |
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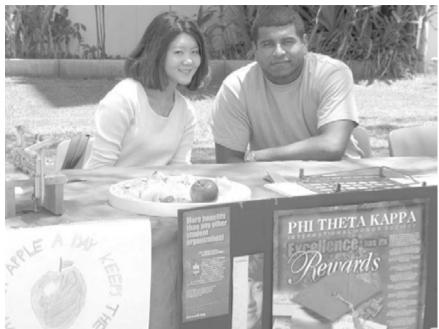
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