Course Descriptions

This section provides course descriptions for all credit courses offered at Honolulu Community College. Courses are listed alphabetically according to discipline, with the exception of Special Studies and Experimental Courses which are described in SPECIAL PROGRAMS & COURSES. The first line in the course description identifies the Course Alpha (an abbreviation of the subject area), Course Number, Course Title, number of Credits (in parentheses), and General Education Code. Additional lines provide any Course Requirement(s) for enrollment, the Course Description, and Hours. Courses may not be offered every semester or every academic year. A schedule of courses offered each semester may be found on the Honolulu CC website (www.honolulu.hawaii.edu) Class Availability link. Further details are provided below.

Course Number:

**Numbering System for Courses:**

1-99 For classes numbered 1-99, credits generally do not transfer to baccalaureate degree colleges, but are transferable within the UH Community College System and may fulfill requirements for Certificates of Achievement, Competence, and Completion.

100-399 For classes numbered 100-399, credits are eligible for transferred to baccalaureate degree institutions including campuses within the University of Hawaii System. (Transfer is subject to receiving institution’s program requirements, therefore students are advised to plan accordingly as early as possible.)

**Course Numbers That Contain Letters:**

CHEM 100L – “L” is a laboratory class that is companion to a lecture course bearing the same number. In this example, CHEM 100 is the lecture course.

ENG 257H – “H” is a variation of a course. Course numbers followed by an alpha suffix such as B-K, M-U, and, X-Z, are variations of a course, each having a distinctive content such that students may earn credit for each variation taken.

PHYS 51V – “V” is a variable credit course. The number of credits is approved by the instructor prior to registration.
Course Requirements:
Some courses require that students meet certain conditions in order to be eligible to enroll. Explanations of the most common of these requirements follow. Additional requirements are listed as comments in the Catalog and on the Honolulu CC website Class Availability link. In exceptional cases, students may be able to enroll in a course even though their computerized record does not show that they meet a required condition. For questions regarding courses, qualifications to meet the prerequisites, co-requisites, etc., and special reasons for exceeding limits, students should see the instructor.

**Prerequisite:** Courses or other background that must be completed prior to enrollment. Prerequisites are REQUIRED for registration. Equivalent courses may also meet requirements (see CREDITS, GRADES & EXAMINATIONS for transfer and placement information). If the prerequisite is in ESL; ENG; or MATH, see the ENGLISH, ESL or MATH SEQUENCE CHARTS for more information on placement. Courses with higher numbers than the stated prerequisite are usually acceptable unless otherwise stated in the Catalog.

**Prerequisite or Co-requisite:** Courses that must be taken EITHER before the course or during the same term. REQUIRED for registration.

**Co-requisite:** Courses that must be taken during the same term. REQUIRED for registration.

**Recommended Preparation (Recommended Prep):** Courses or other background recommended for success in a course.

**Instructor Approval Required:** Courses that require a signed Instructor Approval Card prior to registration. REQUIRED for registration.

**Majors Only:** Courses that are restricted to declared majors, and usually those who have met program prerequisites. REQUIRED for registration.

Course Description Definitions:

**Cross-listing:** Courses with the same content and which meet the requirements of different disciplines/programs. The course number is usually the same, but the course alphas are different. Example: ASAN 241 and HIST 241 Civilizations of Asia. Unless otherwise specified, cross-listed courses count as repeats of one another.

**Repeatable:** Courses that may be taken again after the first successful completion. If the course can be repeated for additional credit, credits will appear on official transcripts up to the limit listed in the course description. Example: “Students may enroll 3 times for a maximum of 9 credits”. Students will not be permitted to exceed the credit limit at registration. Also see REPEATING A COURSE.

**Credit/No-Credit (CR/N):** Courses that are graded on the CR/N system will appear as “Satisfactory Completion” or “No Grade” on transcripts, and grade points will not be computed. Some courses allow students to choose between the CR/N and Letter Grade systems.

**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). Hours specified are weekly unless otherwise stated. The same course may be offered in several different formats, e.g. ENG 100 is offered 3 hours per week for a Fall/Spring term, 48 hours condensed into 6 weeks for a Summer term, and 10 weeks for an Off-Campus Education Program term.

More Course Options:
Courses may also be offered with the following options that are identified on the Honolulu CC website (www.honolulu.hawaii.edu) Class Availability link.

- **Cooperative Education Courses:** provide on the job experience in conjunction with classroom and laboratory instruction. (See also COOPERATIVE EDUCATION.)

- **Distance Education Courses:** offer delivery options including cable, online, and a combination of both. Distance Education courses are identified with Room designations “CABLE” or “WWW” in the Honolulu CC Class Availability website. (See also DISTANCE EDUCATION.)

- **Learning Community Courses:** provide shared learning support for 1st year students by combining two or more courses with a common cohort of students. (See also LEARNING COMMUNITY.)

- **Service Learning Courses:** combine service to the community with student learning. (See also SERVICE LEARNING COURSES.)
**Accounting (ACC)**

ACC 201 *Introduction to Financial Accounting* (3)  
**Prerequisite:** ENG 22/60 or ESL 23, OR Placement in ENG 100  
An introduction to accounting principles and practices used to record and communicate financial information. Analyze methods for valuing assets, liabilities, and equity of an organization. (3 hrs. lect. per week)

ACC 202 *Introduction to Managerial Accounting* (3)  
**Prerequisite:** "C" or higher in ACC 201  
An introduction to managerial accounting methods for evaluating performance including cost accounting, budgeting, break-even analysis, ratio analysis, standard cost systems, and reporting for internal decision making. (3 hrs. lect. per week)

**Administration of Justice (AJ)**

AJ 101 *Introduction to Administration of Justice* (3)  
**Prerequisite or Co-requisite:** AJ 101  
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 the criminal justice system, 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)

AJ 103 *Criminal Investigation* (3)  
**Prerequisite or Co-requisite:** 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, fingerprinting, casts, photographs and laboratory assistance. (3 hrs. lect. per week)

AJ 137 *Patrol Procedures* (3)  
**Prerequisite or Co-requisite:** 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)

AJ 138 *Criminal Justice System Reports and Communications* (3)  
**Prerequisite or Co-requisite:** 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)

AJ 139 *Computer Application in Criminal Justice* (3)  
**Prerequisite or Co-requisite:** 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)

AJ 150 *The Correctional Process* (3)  
**Prerequisite or Co-requisite:** 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)

AJ 180 *Introduction to Terrorism* (3)  
**Prerequisite or Co-requisite:** AJ 101  
This course provides a history of terrorism, focusing on the terrorists, their motivations and ideologies, and how they operate and execute terrorist attacks. The course examines the current responses to domestic and international terrorism along with analyzing future trends within the global war on terrorism. The course will discuss the theoretical perspectives of terrorism within criminology, criminal justice, sociology, and psychology. The course will present the use of the Internet, improvised explosives, and religious extremism found within modern terrorism. (3 hrs. lect. per week)

AJ 193V *Cooperative Education* (1-4)  
**Prerequisite:** "C" or higher in ENG 22/60 or ESL 23, OR Placement in ENG 100  
**Instructor approval required.**  
AJ majors only. This course provides students with the opportunity to acquire on-the-job experience related to classroom instruction in Administration of Justice. Students may enroll 4 times for a maximum of 12 credits. Four (4) credits can be applied to AJ elective requirements. (5 hours work experience per week per credit)

AJ 200 *Procedures in the Hawai‘i Justice System* (3)  
**Prerequisite or Co-requisite:** AJ 101  
This course provides an examination of the basic Fourth, Fifth, and Sixth Amendment procedural principles that govern the interaction of the police and suspects in the investigation of crime. Beginning with the initial encounter, the course will examine the constitutional guidelines developed to regulate police behavior in the areas of investigatory stops, searches and seizures, arrests, interrogations, *Miranda*, and electronic surveillance. The effects of failing to follow these judicially mandated guidelines will also be explored. (3 hrs. lect. per week)

AJ 208 *Introduction to Criminology* (3)  
**Prerequisite or Co-requisite:** 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
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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)

**AJ 210 Juvenile Justice (3)**  
*Prerequisite or Co-requisite: 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)

**AJ 220 Constitutional Law (3)**  
*Prerequisite or Co-requisite: AJ 101*  
This course provides an overview of the development of the doctrines of federalism, separation of powers, and checks and balances theories as well as judicial review. Specific topics include sources of federal legislative power, commerce, taxing, spending, presidential and military powers, power of states to regulate and tax interstate commerce, preemption, the due process clause of the Fourteenth Amendment, equal protection, and First Amendment rights. Selected Supreme Court cases interpreting the U.S. Constitution are also examined. (3 hrs. lect. per week)

**AJ 221 Introduction to Criminal Law (3)**  
*Prerequisite or Co-requisite: AJ 101*  
This course examines society’s control of unwanted behavior through laws. The particular focus is on the general principles of substantive criminal law. Topics include principles of criminal liability - *actus reus, mens rea*, causation, uncompleted crimes, and criminal defenses. General elements of crimes are covered including crimes against persons, habituation, property, and public order and morals. Applicable provisions of the Hawai’i Penal Code will also be discussed. (3 hrs. lect. per week)

**AJ 224 Rules of Evidence (3)**  
*Prerequisite or Co-requisite: AJ 101*  
This course is a thorough study of 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. (3 hrs. lect. per week)

**AJ 230 Principles of Police Supervision (3)**  
*Prerequisite or Co-requisite: 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)

**AJ 233 Police Organization and Management (3)**  
*Prerequisite or Co-requisite: 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)

**AJ 234 Community Policing (3)**  
*Prerequisite or Co-requisite: 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)

**AJ 235 Ethics in the Criminal Justice System (3)**  
*Prerequisite or Co-requisite: 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)

**AJ 280 Current Issues in the Administration of Justice (3)**  
*Prerequisite or Co-requisite: 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)

**AJ 283 Substance Abuse in Society (3)**  
*Prerequisite or Co-requisite: 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)

**Aeronautics Maintenance Technology (AERO)**

**AERO 93V Cooperative Education (1-4)**  
*Prerequisite: ENG 19 and/or ENG 21, OR ESL 13 &14, OR Placement in ENG 22/60 or ESL 23; “C” or higher in MATH 50/53, OR Placement in MATH 103  
Instructor approval required.  
AERO majors only. This course provides students with the opportunity to acquire on-the-job experience related to classroom and laboratory instruction in Aeronautics Maintenance. Students may enroll 4 times for a maximum of 12 credits. (5 hrs. of work experience per week per credit)
AERO 130 General Aircraft Maintenance I (7)
Prerequisite: ENG 19 and/or ENG 21, OR ESL 13 & 14, OR Placement in ENG 22/60 or ESL 23; “C” or higher in MATH 50, OR Placement in MATH 103
Co-requisite: AERO 131
AERO majors only. Fundamentals of applied mathematics, use of technical manuals and other maintenance functions as specified by Federal Aviation Regulation Part 147. (250 hrs. lect./lab. over 8 weeks)

AERO 131 Advanced General Aircraft Maintenance II (7)
Prerequisite: “C” in AERO 130
Co-requisite: AERO 130
AERO majors only. Fundamentals of direct and alternating current electricity, and fundamentals of applied physics; calculate and measure electrical power volts, amps, and resistance; use electrical diagrams; perform weight and balance operations in accordance with Federal Aviation Regulation Part 147. (250 hrs. lect./lab. over 8 weeks)

AERO 132 Powerplant Maintenance I (7)
Prerequisite: “C” in AERO 130 and in 131
Co-requisite: AERO 133
AERO majors only. Fundamentals of piston engine construction and operation and 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)

AERO 133 Airframe Maintenance I (7)
Prerequisite: “C” in AERO 130 and in 131
Co-requisite: AERO 132
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)

AERO 134 Powerplant Maintenance II (7)
Prerequisite: “C” in AERO 130 and in 131 and in 132
Co-requisite: AERO 135
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)

AERO 135 Airframe Maintenance II (7)
Prerequisite: “C” in AERO 130 and in 131 and in 133
Co-requisite: AERO 134
AERO majors only. Principles of construction of aircraft wooden structures and 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)

AERO 136 Powerplant Maintenance III (7)
Prerequisite: “C” in AERO 130 and in 131 and in 132 and in 134
Co-requisite: AERO 137
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)

AERO 137 Airframe Maintenance III (7)
Prerequisite: “C” in AERO in 130 and in 131 and in 133 and in 135
Co-requisite: AERO 136
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)
Students who place below ENG 22 and/or MATH 24 based on ACT Compass placement test scores, are required to enroll in Essential ENG and/or MATH classes in their first semester at Honolulu CC.

Laboratory consists of activities that focus and promote the Air Force way of life. Instruction will include leadership and followership development, teamwork, physical fitness training, and activities designed to build camaraderie and esprit de corps. Course is open to all majors. Graded on a CR/N basis. (2 hrs. lab. per week and two 1 hr, sessions of Physical Training, total 4 hrs. per week)

**AS 102 FOUNDATIONS OF THE UNITED STATES AIR FORCE (1)**
Tuition is waived, classes are held at UH Mānoa. For more information call AFROTC at 956-7734/7762. Continuation of 101. A-F only. (1 hr. lect. per week)

**AS 102L INITIAL MILITARY TRAINING II (1)**
Supplement to AS 102, continuation of AS 101L. Tuition is waived, classes are held at UH Mānoa. For more information, call AFROTC at 956-7734/7762. Laboratory consists of activities that focus and promote the Air Force way of life. Instruction will include leadership and followership development, teamwork, physical fitness training, and activities designed to build camaraderie and esprit de corps. Course is open to all majors. Graded on a CR/N basis. (2 hrs. lab. per week and two 1 hr, sessions of Physical Training, total 4 hrs. per week)

**AS 201 EVOLUTION OF USAF AIR AND SPACE POWER (2)**
Tuition is waived, classes are held at UH Mānoa. For more information, call AFROTC at 956-7734/7762. Study of Air Force heritage, Quality Air Force principles, ethics, and an introduction to leadership and group leadership problems. Application of written and verbal communication skills is included. A-F only. (2 hr. lect. per week)

**AS 201L FIELD TRAINING PREPARATION I (1)**
Instructor approval required. Supplement to AS 201. Tuition is waived, classes are held at UH Mānoa. For more information, call AFROTC at 956-7734/7762. Laboratory consists of preparing second-year AFROTC cadets with the skills needed to successfully complete AFROTC Field Training. Students will learn basic military skills, Field Training skills, and participate in physical fitness training. Graded on a CR/N basis. (2 hrs. lab. per week and two 1 hr, sessions of Physical Training, total 4 hrs. per week)

**AS 202 EVOLUTION OF USAF AIR AND SPACE POWER (2)**
Tuition is waived, classes are held at UH Mānoa. For more information, call AFROTC at 956-7734/7762. Continuation of 201. A-F only. (2 hr. lect. per week)

**AS 202L FIELD TRAINING PREPARATION II (1)**
Instructor approval required. Continuation of 201L. Graded on a CR/N basis. (2 hrs. lab. per week and two 1 hr, sessions of Physical Training, total 4 hrs. per week)

**AS 251L LEADERSHIP LABORATORY (1)**
Prerequisite: 101, 102, 201, 202; or consent Tuition is waived, classes are held at UH Mānoa. For more information, call AFROTC at 956-7734/7762. Laboratory course on the basic skills of leadership and followership. Lab includes application of leadership/ followership skills, various field trips to military installations, group projects, and physical training. Repeatable one time. A-F only. (2 hrs. lab. per week and two 1 hr. sessions of Physical Training, total 4 hrs. per week)

**Agriculture (AG)**

**AG 100 INTRODUCTION TO AGRICULTURAL SCIENCES (3)**
Recommended Prep: High School Biology
Introduction to diverse disciplines of agricultural sciences, industry, and contemporary issues in agriculture. (3 hrs. lect. per week)

**American Studies (AMST)**

**AMST 150 AMERICA AND THE WORLD (3)**
Prerequisite or Co-requisite: ENG 22/60 or ESL 23
Recommended Prep: ENG 100
Examines America’s role in world history and the influence of world affairs on U.S. culture and society. Focuses on U.S. interdependence with Africa, European, Native American, Asian, and Polynesian civilizations, from 1492 to present. (3 hrs. lect. per week)

**AMST 201 THE AMERICAN EXPERIENCE (3)**
Prerequisite: ENG 22/60 or ESL 23, 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)

**AMST 202 DIVERSITY IN AMERICAN LIFE (3)**
Prerequisite: ENG 22/60 or ESL 23, 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)

**Anthropology (ANTH)**

**ANTH 135 PACIFIC ISLAND PEOPLES (3)**
Recommended Prep: Placement in ENG 22/60 or ESL 23
Introduction to the peoples and cultures of the Pacific Islands. Emphasis is on cultural change and comparisons with Hawaiian ancient and modern cultures. Cross-listed as SSCI 125. (3 hrs. lect. per week)

**ANTH 150 HUMAN ADAPTATIONS (3)**
Recommended Prep: ENG 22/60 or ESL 23, 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)
Students who place below ENG 22 and/or MATH 24 based on ACT Compass placement test scores, are required to enroll in Essential ENG and/or MATH classes in their first semester at Honolulu CC.

**Anthropology (ANTH)**

**ANTH 151 EMERGING HUMANITY (3)**
Recommended Prep: Placement in ENG 22/60 or ESL 23
Introduction to the paleontology of human biological evolution and the archaeology of culture in the world prior to AD 1500. (3 hrs. lect. per week)

**ANTH 200 CULTURAL ANTHROPOLOGY (3)**
Prerequisite: ENG 22/60 or ESL 23, 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)

**Arabic (ARAB)**

**ARAB 101 ELEMENTARY ARABIC I (4)**
Prerequisite: “C” or higher in ENG 22/60 or ESL 23, OR Placement in ENG 100, OR Instructor Approval
Instructor approval required.
This is the first half of Elementary Arabic courses, designed to provide students with basic knowledge of Modern Standard Arabic (MSA). Focuses on developing proficiency in the standard written Arabic language, as well as formal spoken Arabic. May be taken on a CR/N basis. (4 hrs. lect. per week)

**ARAB 102 ELEMENTARY ARABIC II (4)**
Prerequisite: “C” or higher in ARAB 101, OR Instructor Approval
Instructor approval required.
Focuses on developing proficiency in the standard written Arabic language as well as formal spoken Arabic. It introduces a wide range of situation-based texts and topics that build vocabulary, grammar, and general communicative competence. May be taken on a CR/N basis. (4 hrs. lect. per week)

**Applied Trades (APTR)**

**APTR 193V COOPERATIVE EDUCATION (1-6)**
Instructor approval required.
This course provides students with an opportunity to gain work experience related to the program major. This course was created according to an agreement between the Department of Navy and Honolulu CC for students under the SCEP Program through the Office of Personnel Management (OPM). Students must be recommended by the work supervisor in order to enroll. Students may enroll 4 times for a maximum of 16 credits. (75 hrs. of supervised work experience per credit)

**Architectural, Engineering and CAD Technologies (AEC)**

**AEC 81 BASIC CAD DRAFTING (3)**
A first course in technical drafting designed primarily for students planning to enroll in regular-program Architectural, Engineering and CAD Technologies courses upon completion of this course, but open to others as well. Topics include use of CAD software, scaling and plotting drawings, orthographic projection, sections, dimensions, pattern drawing, and pictorial drawing. (4 hrs. contact per week)

**AEC 110 BASIC AUTOCAD (4)**
Prerequisite: “C” or higher in AEC 81, or instructor approval based on high school drafting or other prior training/experience; “C” or higher in ENG 22/60 or ESL 23, OR Placement in ENG 100 or higher; MATH 9, OR Placement in MATH 50/53 or higher.
AEC majors 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. (4 hrs. lect. per week)

**AEC 111 INTRODUCTION TO PROFESSIONAL ETHICS (1)**
Prerequisite: “C” or higher in ENG 22/60 or ESL 23, OR Placement in ENG 100 or higher
AEC majors only. This course is designed for students preparing for employment or further training in architecture, engineering, or a related professional field and who will at some point work with others – colleagues, supervisors, clients, or the general public. Solving ethical problems is often more difficult than applying technical or other specialized skills that the greatest amount of time is spent on in training. The course makes solutions of issues and dilemmas easier, which leads to greater success both on and off the job. Its focus is principally on applied ethics with minimum theoretical terminology, that is very practical – and comes with a lifetime benefit guarantee. (1 hr. lect. per week)

**AEC 114 ARCHITECTURAL GRAPHICS (3)**
Prerequisite: “C” or higher in AEC 81, or instructor approval based on high school drafting or other prior training/experience; “C” or higher in ENG 22/60 or ESL 23, OR Placement in ENG 100 or higher; MATH 9, OR Placement in MATH 50/53 or higher.
AEC majors only. This is a first course in graphics that is followed by other courses in the AEC program that involve graphical conceptualization and representation. It is comprised of three components: (1) computer architectural modeling in SketchUp or similar program, (2) visualization using AutoCAD and specialized software, and (3) freehand drawing. Perspective drawing, entourage, shadows, descriptive geometry, and sections and rotations, are walkthrough simulations are some of the topics included in the course. (3 hrs. lect. per week)

**AEC 118 CONSTRUCTION MATERIALS (3)**
Prerequisite: “C” or higher in ENG 22/60 or ESL 23, OR Placement in ENG 100 or higher
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
Students who place below ENG 22 and/or MATH 24 based on ACT Compass placement test scores, are required to enroll in Essential ENG and/or MATH classes in their first semester at Honolulu CC.

AEC 120 Introduction to Construction Drawings (4)
Prerequisite: "C" or higher in AEC 110
Recommended Prep: AEC 118
AEC majors 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.
(4 hrs. lect. per week)

AEC 123 Residential Planning and Design (3)
Prerequisite: "C" or higher in AEC 114
AEC majors 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. (3 hrs. lect. per week)

AEC 124 Building Information Modeling Software (3)
Prerequisite: "C" or higher in AEC 110 and in AEC 114
AEC majors only. This course provides students with the opportunity to work on a medium-size modeling/drafting project using the latest architectural software. Emphasis is on the three-dimensional drawing tools of the Revit 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. (3 hrs. lect. per week)

AEC 130 Residential Working Drawings (4)
Prerequisite: "C" or higher in AEC 120 and in AEC 124
Co-requisite: AEC 131 or instructor approval
AEC majors 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. (4 hr. lect. per week)

AEC 131 Construction Codes (3)
Prerequisite: "C" or higher in AEC 120; "C" or higher in ENG 100
Co-requisite: AEC 130
AEC majors 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. (3 hrs. lect. per week)

AEC 135 Introduction to the Built Environment (3)
Prerequisite: "C" or higher in ENG 250-257(A-Z)
This course explores the evolution of society's physical fabric as revealed by place, climate, culture, technology and time. The work of several well-known architects will be examined to study the impact of scientific knowledge and architectural design theory on history, culture, sociology and built form. Students will prepare several oral presentations to validate their understanding of the course content. Fall semester only. Open to non-majors. (3 hrs. lect. per week)

AEC 136 Structural Drawing (3)
Prerequisite or Co-requisite: MATH 197, or MATH 140 or higher, OR Placement in MATH 205
Recommended Prep: AEC 118
AEC majors 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 CAD software. Emphasizes 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. (3 hrs. lect. per week)

AEC 138 Construction Estimating and Bidding (3)
Prerequisite: AEC 118; "C" or higher in AEC 120; "C" or higher in ENG 100
AEC majors 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. (3 hrs. lect. per week)

AEC 139 Field Shadow Experience (1)
Prerequisite: "C" or higher in AEC 120; "C" or higher in ENG 250-257(A-Z)
AEC majors 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 for 7 weeks)

AEC 140 Commercial Working Drawings (4)
Prerequisite: "C" or higher in AEC 130
Co-requisite: AEC 141
AEC majors 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. (4 hr. lect. per week)
Students who place below ENG 22 and/or MATH 24 based on ACT Compass placement test scores, are required to enroll in Essential ENG and/or MATH classes in their first semester at Honolulu CC.

**AEC 141 BUILDING SERVICES (3)**
Co-requisite: AEC 140
Recommended Prep: AEC 118
AEC majors 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. (3 hrs. lect. per week)

**AEC 146 ADVANCED MODELING AND PRESENTATION (3)**
Prerequisite: “C” or higher in AEC 110 and in AEC 124
AEC majors only. Advanced 3D modeling and rendering techniques using a high-end computer modeling program aimed primarily at building design. Topics 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. (3 hrs. lect. per week)

**AEC 148 CIVIL ENGINEERING DRAWING (3)**
[FORMERLY AEC 127]
Prerequisite: “C” or higher in AEC 130; “C” or higher in MATH 197, or Placement in MATH 205
AEC majors only. Introduction to civil engineering drawing with AutoCAD and AutoCAD Civil 3D. Maps, surveys, scales and conventions, contours and profiles, site plans, site utilities, topographic models, excavation, retaining walls, highway layout, subdivision and block plans. (3 hrs. lect. per week)

**AEC 149 PREPARATION FOR EMPLOYMENT IN THE AEC FIELD (2)**
Prerequisite or Co-requisite: “C” or higher in AEC 146
AEC majors only. A 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. The other half of the course is devoted to designing and creating a professional portfolio. (2 hrs. lect. per week)

**AEC 193V COOPERATIVE EDUCATION (1-4)**
Prerequisite: “C” or higher in AEC 81 or high school CAD drafting course, or instructor approval based on other prior CAD training/experience; ENG 22/60 or ESL 23, OR Placement in ENG 100 or higher; MATH 9, OR Placement in MATH 50/53 or higher
Instructor approval required.
AEC majors only. This course provides students 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 a maximum of 12 credits. (5 hrs. work experience per week per credit)

**ART 101 INTRODUCTION TO THE VISUAL ARTS (3)**
Prerequisite: ENG 22/60 or ESL 23, OR Placement in ENG 100
Nature of visual art and its expression in various forms. Lectures, demonstrations. (3 hrs. lect. per week)

**ART 107D INTRODUCTION TO DIGITAL PHOTOGRAPHY (3)**
Students are required to have access to a working digital camera (10+ MP, SLR preferred) plus their camera’s operating instructions and application CD.
Recommended Prep: ART 112; ENG 22/60 or ESL 23
This course covers the basic history and practice of digital photography. Students will learn basic camera techniques, the specific features of their own camera, and how to convert their images to digital formats. The course will provide students with basic aesthetic principles as well as specific practical techniques needed for artistic expression and/or entry into the photographic workplace. Students may enroll 2 times for a maximum of 6 credits. (3 hrs. lect./lab. per week)

**ART 111 INTRODUCTION TO WATERCOLOR PAINTING (3)**
Recommended Prep: ENG 22/60 or ESL 23
ART 111 provides a foundation in the materials and techniques of Watercolor Painting through lectures, field trips, demonstrations and in-class painting sessions. May be taken on a CR/N basis. (6 hrs. lect./lab. per week)

**ART 112 INTRODUCTION TO DIGITAL ART (3)**
Recommended Prep: ICS 100; ENG 22/60 or ESL 23, and MATH 22/50
Introduction to the technology, vocabulary, and procedures of computer produced images; the use of computer graphics as an artist’s tool. Students may enroll 2 times for a maximum of 6 credits. (2 hrs. lect.; 4 hrs. lab. per week)

**ART 113 INTRODUCTION TO DRAWING (3)**
Prerequisite: ENG 22/60 or ESL 23, 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)

**ART 115 INTRODUCTION TO 2D DESIGN (3)**
Recommended Prep: ENG 22/60 or ESL 23; and MATH 22/50 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)

**ART 123 INTRODUCTION TO PAINTING (3)**
Prerequisite Co-requisite: ENG 19 and/or ENG 21, or ESL 13 & 14, OR Placement in ENG 22/60 or ESL 23; MATH 9
Recommended Prep: ART 113
Theory and practice of painting; basic material and technical procedures will be addressed. (2 hrs. lect.; 4 hrs. lab. per week)

**ART 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)
Students who place below ENG 22 and/or MATH 24 based on ACT Compass placement test scores, are required to enroll in Essential ENG and/or MATH classes in their first semester at Honolulu CC.

**Asian Studies (ASAN)**

**ASAN 100 Cross Culture Perception & Awareness (3)**
Prerequisite: Placement in ENG 22/60 or ESL 23
Recommended Prep: Placement in ENG 100

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 students will acquire through this course should enable them to confront and interact with any other non-American culture. (3 hrs. lect. per week)

**ASAN 241 Civilizations of Asia I (3)**
Prerequisite: ENG 22/60 or ESL 23, OR Placement in ENG 100
Recommended Prep: ENG 100 or Placement in ENG 201-296

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. per week)

**ASAN 242 Civilizations of Asia II (3)**
Prerequisite: ENG 22/60 or ESL 23, OR Placement in ENG 100
Recommended Prep: ENG 100 or Placement in ENG 201-296

Continuation of ASAN 241. Cross-listed as HIST 242. (3 hrs. lect. per week)

**ASAN 250 Asian Politics Since 1900 (3)**
Prerequisite: ENG 22/60 or ESL 23, OR Placement in ENG 100

This course will focus on ten Asian countries with the largest economics and populations, in order to familiarize students with the development of their politics, economics, and society. Cross-listed as POLS 250. (3 hrs. lect. per week)

**Astronomy (ASTR)**

**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)**

**ABRP 62 Metal Straightening Body Filler Techniques (2)**
Prerequisite or Co-requisite: ENG 19 and/or ENG 21, OR ESL 13 & 14, OR Placement in ENG 22/60 or ESL 23; MATH 9, OR Placement in MATH 24/50/53
Co-requisite: ABRP 63, 64, 65, 66, 67

**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.)

**ABRP 63 Welding and Cutting Techniques (2)**
Prerequisite or Co-requisite: ABRP 62
Co-requisite: ABRP 64, 65, 66, 67

**ABRP majors only.** This course will introduce the student to basic oxyacetylene 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.)

**ABRP 64 Corrosion Repair Techniques (2)**
Prerequisite or Co-requisite: ABRP 63
Co-requisite: ABRP 62, 65, 66, 67

**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 their 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.)

**ABRP 65 MIG Welding (2)**
Prerequisite or Co-requisite: ABRP 64
Co-requisite: ABRP 62, 63, 66, 67

**ABRP majors only.** This course will emphasize the use, care and proper operation of the MIG welder. The course will allow students to learn, practice, and demonstrate their 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.)

**ABRP 66 Refinishing Safety and Vehicle Preparation (3)**
Prerequisite or Co-requisite: ABRP 62
Co-requisite: ABRP 63, 64, 65, 67

**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)

**ABRP 67 Detailing (1)**
Co-requisite: ABRP 62, 63, 64, 65, 66

**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 their 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)

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ABRP 68 Corrosion Protection Principles (1)
Prerequisite: ABRP 65
Co-requisite: ABRP 69, 70, 71, 72
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)

ABRP 69 Color Mixing and Matching (3)
Prerequisite: ABRP 66
Co-requisite: ABRP 68, 70, 71, 72
ABRP majors only. This course introduces students 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)

ABRP 70 Paint Blending Techniques (3)
Prerequisite or Co-requisite: ABRP 69
Co-requisite: ABRP 68, 71, 72
ABRP majors only. This course will introduce students 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)

ABRP 71 Paint Application Problems (2)
Prerequisite or Co-requisite: ABRP 70
Co-requisite: ABRP 68, 69, 72
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)

ABRP 72 Automotive Composite Repairs (3)
Co-requisite: ABRP 68, 69, 70, 71
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. Students will have the opportunity to learn, practice, and demonstrate their skills as they relate to composite repair. (90 hrs. total. 6 hrs. lect.; 18 hrs. lab. per week over 3.75 weeks)

ABRP 73 Collision Prep and Panel Alignment (4)
Co-requisite: ABRP 74, 75, 76, 77
ABRP majors only. This course will introduce students 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 students 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)

ABRP 74 Quarter Panel Replacement Techniques (2)
Prerequisite: ABRP 65
Co-requisite: ABRP 73, 75, 76, 77
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)

ABRP 75 Door Skin Alignment and Replacement (2)
Co-requisite: ABRP 73, 74, 76, 77
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)

ABRP 76 Advanced Welding Methods (2)
Prerequisite: ABRP 65
Co-requisite: ABRP 73, 74, 75, 77
ABRP majors only. Students will be introduced to the theory of advanced welding employed in welding different metal alloys. (60 hrs. total. 6 hrs. lect.; 18 hrs. lab. per week over 2.5 weeks)

ABRP 77 Estimating Vehicle Damage (2)
Co-requisite: ABRP 73, 74, 75, 76
ABRP majors only. The focus of this course will be to give students the opportunity to learn the basic skills and understanding needed to read and interpret a damage report. Students 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)

ABRP 78 Collision Damage Analysis (3)
Co-requisite: ABRP 79, 80
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. Students will also move from basic structural measuring principles, 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)

ABRP 79 Structural Straightening Techniques (3)
Prerequisite: ABRP 65
Co-requisite: ABRP 78, 80
ABRP majors only. Students will learn, practice, and demonstrate their skills as they relate to different anchoring systems, and their set-up. This course will further introduce students 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)

ABRP 80 Panel Replacement (6)
Prerequisite: ABRP 65
Co-requisite: ABRP 78, 79
ABRP majors only. This course will expose students to factory attachment methods of structural/non-structural components and the proper procedures for replacing these components. The method of sectioning structural/non-structural components will
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also be explored. (180 hrs. total. 6 hrs. lect.; 18 hrs. lab. per week over 7.5 weeks)

ABRP 93V COOPERATIVE EDUCATION (1–4)
Prerequisite: ENG 19 and/or ENG 21, OR ESL 13 & 14, OR Placement in ENG 22/60 or ESL 23; MATH 9, OR Placement in MATH 24/50/53
Instructor approval required.
ABRP majors only. This course will provide students 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 a maximum of 12 credits. (5 hrs. work experience per week per credit.)

Automotive Technology (AMT)

AMT 20 INTRODUCTION TO AUTOMOTIVE MECHANICS (2)
Prerequisite: Valid driver’s license; ENG 19 and/or ENG 21, OR ESL 13 & 14, OR Placement in ENG 22/60 or ESL 23; “C” in MATH 25 or in 50/53, OR Placement in higher MATH
Co-requisite: AMT 53 and AMT 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)

AMT 22 SURVEY OF AUTOMOTIVE TECHNOLOGY (4)
Prerequisite: Valid driver’s license
Recommended Prep: Auto Academy Participant
Administrative approval required.
This course covers the same content as AMT 20 - Introduction to Automotive Mechanics, but includes an internship and an overview of automotive technology. Topics included are: an overview of the eight areas in automotive technology, policies and procedures in the Automotive Mechanics program, career opportunities, shop safety, identification of automotive components and systems, use of technical reference manuals, proper identification and safe use of basic hand tools and precision measuring instruments, fastener identification and repair, and scheduled maintenance. This course is restricted to high school students in the summer Hawai‘i High School Auto Academy partnership. (20 hrs. lect./lab. per week)

AMT 30 ENGINES (8)
Prerequisite: AMT 46 and AMT 50
Co-requisite: 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)

AMT 40 ELECTRICAL SYSTEMS I (4)
Prerequisite: AMT 46 & 50; PHYS 100 & 100L, or PHYS 197E
Co-requisite: 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)

AMT 42 ELECTRICAL SYSTEMS II (8)
Prerequisite: AMT 30 and AMT 40
Co-requisite: AMT 43
AMT majors only. This Electrical Systems II course deals with the systematic approach to diagnosing and repairing electrical, electronic, and ignition systems. The course focuses on small motor devices, relay controls, instrument clusters, and ignition systems found in the modern vehicle. Students will be introduced to common symptoms and pinpoint test procedures used to evaluate various circuits. They will demonstrate awareness of the safety aspects, operation, and characteristics of Hybrid/Electric Vehicles. Other subject areas include basic electrical repairs, shop safety, and the proper utilization of tools and equipment. Course may include live work.
(240 hrs. lect./lab. per term)

AMT 43 AIR CONDITIONING (4)
Prerequisite: AMT 30 and AMT 40
Co-requisite: 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)

AMT 46 POWERTRAIN AND MANUAL TRANSMISSIONS (5)
Prerequisite: AMT 53 and AMT 55
Co-requisite: 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 transaxes 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)

AMT 50 AUTOMATIC TRANSMISSIONS/TRANSAXLES (7)
Prerequisite: AMT 53 and AMT 55
Co-requisite: AMT 46
Recommended Prep: Employed in the automotive industry
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Aviation
(See Commercial Aviation)

Biochemistry (BIOC)

BIOC 141 Fundamentals of Biochemistry (3)
[FORMERLY BIOC 241]
Prerequisite: MATH 25
Biological chemistry stressing integration of concepts of general, inorganic, and biochemistry and applications to life chemistry. (3 hrs. lect. per week)

BIOC 142 Elements of Biochemistry (3)
[FORMERLY BIOC 251]
Prerequisite: BIOC 141 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)

BIOL 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)

BIOL 103 Principles of Zoology (3)
Recommended Prep: High School Biology
Structure, development, physiology, reproduction, evolution, behavior, and ecology of animals. Cross-listed as ZOOL 101. (3 hrs. lect. per week)

BIOL 103L Principles of Zoology Lab (1)
Recommended Prep: High School Biology
Structure, development, physiology, reproduction, evolution, behavior, and ecology of animals. Cross-listed as ZOOL 101L. (3 hrs. lab. per week)

BIOL 123 Hawaiian Environment Science (3)
Recommended Prep: High School Biology
Characteristics of science and interaction with society illustrated by topics in geology, astronomy, oceanography, and biology of Hawaiian Islands. (3 hrs. lect. per week)

BIOL 124 Environment and Ecology (3)
Co-requisite: BIOL 124L
Biological and physical principles affecting human/environment interaction; impact of science, technology, value and perceptions on global society and ecology; projections and options about human ecology. (3 hrs. lect. per week)

BIOL 124L Environment and Ecology Lab (1)
Co-requisite: BIOL 124
Laboratory experiments, field surveys/studies, demonstrations and projects illustrating topics in human ecology. (3 hrs. lab. per week)
Students who place below ENG 22 and/or MATH 24 based on ACT Compass placement test scores, are required to enroll in Essential ENG and/or MATH classes in their first semester at Honolulu CC.

**Botany (BOT)**

**BOT 101 GENERAL BOTANY I (3)**
Co-requisite: BOT 101L
This course will cover introduction to plant biology; structures and functions of plant cells, tissues, and organs such as roots, stems, leaves and flowers; concepts of biological evolution and classification; the diversity of plants; genetics; ecology; and current topics of interest: biotechnology, agriculture and pollution effects on plants. (3 hrs. lect. per week)

**BOT 101L GENERAL BOTANY I LABORATORY (1)**
Co-requisite: BOT 101
Laboratory sessions will involve specific application of lecture material. Laboratory observations, experiments and field trips will illustrate the basic principles of plant biology, plant propagation and environmental issues affecting plant growth. Students will be exposed to diverse farming technologies for sustainable food production. (3 hrs. lab. per week)

**Botany (BOT)**

**BOT 105 MEA KANU: HAWAIIAN PLANTS & THEIR USES (3)**
Prerequisite: ENG 19 and/or ENG 21, OR ESL 13 & 14, OR Placement in ENG 22/60 or ESL 23
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 HWST 105. (3 hrs. lect. per week)

**Business (BUS)**

**BUS 300 FUNDAMENTALS OF MANAGEMENT FOR IT (3)**
Prerequisite: ENG 100 and A.S. degree in CENT or equivalent
Recommended Prep: ENG 209
This course provides an introduction to the world of business and organizations and examines the functions and relationships of marketing, human resources, accounting, information systems and law, with specific application to the field of Information Technology. (3 hrs. lect. per week)

**Business Law (BLAW)**

**BLAW 200 LEGAL ENVIRONMENT OF BUSINESS (3)**
Prerequisite: ENG 100 or Placement in ENG 201-296; MATH 25 or Placement in 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/N basis. (3 hrs. lect. per week)
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Carpentry Technology (CARP)

CARP 20 CARPENTRY BASICS (3)
Prerequisite or Co-requisite: ENG 19 and/or ENG 21, OR ESL 13 & 14, OR Placement in ENG 22/60 or ESL 23; MATH 9, OR Placement in MATH 24/50/53
Co-requisite: CARP 26 and CARP 30
CARP majors only. This course provides an overview of the tools, materials, and safety practices currently used in the industry. The safe use, care and maintenance of hand and power tools is emphasized. (6 hrs. lect./lab. per week)

CARP 22 CONCRETE FORM CONSTRUCTION (11)
CARP majors 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)

CARP 26 CARPENTRY I (9)
Co-requisite: CARP 20 and CARP 30
This course provides students with an opportunity to acquire basic skills required for success in the Carpentry Trade. Students will complete projects using appropriate tools, materials, procedures and safety practices currently used in the industry. (18 hrs. lect./lab. per week)

CARP 30 BLUEPRINT READING FOR CARPENTERS (3)
Co-requisite: CARP 20 and CARP 26
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. (3 hrs. lect. per week)

CARP 41 ROUGH FRAMING AND EXTERIOR FINISH (11)
Co-requisite: IS 106
CARP majors only. This course is designed to show students 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)

CARP 42 FINISHING (11)
CARP majors only. This course is designed to show students 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)

CARP 93V COOPERATIVE EDUCATION (1–4)
Prerequisite: ENG 19 and/or ENG 21, OR ESL 13 & 14, OR Placement in ENG 22/60 or ESL 23; MATH 9, OR Placement in MATH 24/50/53
Instructor approval required.
CARP majors only. This course will provide students with the opportunity to acquire on-the-job experience related to classroom and laboratory instruction in carpentry. Students may enroll 4 times for a maximum of 12 credits. (5 hrs. work experience per week per credit)

Chemistry (CHEM)

CHEM 55 FUNDAMENTALS OF COSMETIC CHEMISTRY (3)
Prerequisite or Co-requisite: COSM 30 and 31L
COSM 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)

CHEM 100 CHEMISTRY AND SOCIETY (3)
Co-requisite: 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)

CHEM 100L CHEMISTRY AND SOCIETY LABORATORY (1)
Co-requisite: CHEM 100
Experiments illustrating the role of chemistry in society to the nonscientist. (3 hrs. lab. per week)

CHEM 105 ENVIRONMENTAL CHEMISTRY (4)
Prerequisite: ENG 19 and/or ENG 21, OR ESL 13 & 14, OR Placement in ENG 22/60 or ESL 23; Placement in MATH 24/50/53
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)

CHEM 105C COSMETIC CHEMISTRY (3) DP
Prerequisite: “C” or higher in ENG 19 and/or ENG 21, OR ESL 13 & 14, OR Placement in ENG 22/60 or ESL 23; MATH 9, OR Placement in MATH 24/50/53
Co-requisite: COSM 30 and COSM 31L
COSM 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)
Students who place below ENG 22 and/or MATH 24 based on ACT Compass placement test scores, are required to enroll in Essential ENG and/or MATH classes in their first semester at Honolulu CC.

CHEM 105E ESTHETICIAN CHEMISTRY (4) DP+DY
Prerequisite: “C” or higher in ENG 19 and/or ENG 21, OR ESL 13 & 14, OR Placement in ENG 22/60 or ESL 23;
MATH 9, OR Placement in MATH 24/50/53
COSM majors only. Application of chemical principles to an esthetician specialty. The course content will include: atomic structure, chemical bonding, acids and bases, hair structure, skin structure, shampoos, and chemical nature of skin products. (3 hrs. lect.; 3 hrs. lab. per week)

CHEM 151 ELEMENTARY SURVEY OF CHEMISTRY (3)
Prerequisite: MATH 25 OR Placement in MATH 103
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)

CHEM 151L ELEMENTARY SURVEY OF CHEMISTRY LABORATORY (1)
Prerequisite: MATH 25 OR Placement in MATH 103
Co-requisite: CHEM 151
Experiments introducing laboratory techniques and illustrating chemical principles. (3 hrs. lab. per week)

CHEM 152 SURVEY OF ORGANIC & BIOORGANIC CHEMISTRY (3)
Prerequisite: (CHEM 151 & 151L) OR (CHEM 162 or 171)
Structure, nomenclature, properties, reactions of organic compounds emphasizing those of practical importance in related fields. May be taken on a CR/N basis. (3 hrs. lect. per week)

CHEM 152L SURVEY OF ORGANIC & BIOORGANIC CHEMISTRY LABORATORY (1)
Prerequisite: CHEM 151L or 171L
Prerequisite or Co-requisite: CHEM 152
Techniques of preparation, purification, identification of organic compounds. May be taken on a CR/N basis. (3 hrs. lab. per week)

CHEM 161 GENERAL CHEMISTRY I (3)
Prerequisite: MATH 103, OR Placement in MATH 135
Co-requisite: CHEM 161L
Basic principles of chemistry including stoichiometry. Introduction to solution phase chemistry. Gas phase chemistry. Introduction to thermodynamics, including enthalpies of formation and reaction. Introduction to atomic structure, periodic trends, chemical bonding, molecular structure. (3 hrs. lect. per week)

CHEM 161L GENERAL CHEMISTRY I LABORATORY (1)
Prerequisite: MATH 103, OR Placement in MATH 135
Co-requisite: CHEM 161
Laboratory experiments illustrating concepts of chemistry discussed in CHEM 161. (3 hrs. lab. per week)

CHEM 162 GENERAL CHEMISTRY II (3)
Prerequisite: CHEM 161 and MATH 135 OR Placement in MATH 140
Co-requisite: CHEM 162L
(Continuation of CHEM 161) Liquids and solids.

CHEM 162L GENERAL CHEMISTRY II LABORATORY (1)
Prerequisite: CHEM 161L and MATH 135 OR Placement in MATH 140
Co-requisite: CHEM 162
Laboratory experiments illustrating concepts of chemistry discussed in CHEM 162. (3 hrs. lab. per week)

CHEM 272 ORGANIC CHEMISTRY I (3)
Prerequisite: CHEM 162
Co-requisite: CHEM 272L
CHEM 272 is the first semester of a comprehensive introduction to organic chemistry including molecular structure, nomenclature, stereochemistry, spectroscopy, reactions and reaction mechanisms, synthesis, and applications to biology. (3 hrs. lect. per week)

CHEM 272L ORGANIC CHEMISTRY I LAB (2)
Prerequisite: CHEM 162L
Co-requisite: CHEM 272
CHEM 272L is a comprehensive introduction to laboratory principles of organic chemistry including molecular structure, nomenclature, stereochemistry, spectroscopy, reactions and reaction mechanisms, synthesis, and applications to biology. (4 hrs. lab. per week)

Chinese (CHN) *

CHN 30 ELEMENTARY CONVERSATIONAL MANDARIN CHINESE (3)
Instructor approval required.
There is no required prerequisite and this course can be taken concurrently with CHN 101.
An elementary Mandarin Chinese language course for basic conversation skills and cultural awareness. Materials are presented in the official romanization, pinyin, used in the PRC. May be taken on a CR/N basis. (3 hrs. lect. per week)

CHN 101 ELEMENTARY MANDARIN I (4)
Prerequisite: ENG 19 and/or ENG 21, OR ESL 13 & 14, OR Placement in ENG 22/60 or ESL 23
This course is the first half of Elementary Chinese that teaches basic listening, speaking, reading, and writing skills. Supplemental online or computer-based instruction is required. (4 hrs. lect. per week)

CHN 102 ELEMENTARY MANDARIN II (4)
Prerequisite: CHN 101
This course is the second half of Elementary Chinese that teaches basic listening, speaking, reading, and writing skills. Supplemental online or computer-based instruction is required. (4 hrs. lect. per week)

* Native speakers may not take language courses for credit.
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### Civil Engineering (CE)

**CE 211 Surveying I (3)**
Prerequisite: 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)

### Commercial Aviation (AVIT)

**AVIT 102 Private Pilot Course (5)**
Prerequisite: Placement in ENG 22/60 or ESL 23; Placement in MATH 103
**AVIT majors only.** This course enables students to develop the knowledge and skills needed to safely exercise the privileges and responsibilities of a Private Pilot acting as Pilot-in-Command of a single-engine airplane. Students must complete the appropriate flight lessons with the college’s designated flight provider, complete the academic lessons, plus pass the FAA Private Pilot knowledge and practical tests. (5 hrs. lect. per week)

**AVIT 102L Private Pilot Simulation Lab I (1)**
(formerly AVIT 197A)
Prerequisite or Co-requisite: AVIT 102
**AVIT majors only.** This course provides a bridge between the theory presented in AVIT 102 and the practical application of that theory in aircraft operated by the flight program. AVIT 102L utilizes PC-based simulation devices in which students will perform all maneuvers required by the FAA’s Practical Test Guide for Private Pilots, with a requirement that maneuvers performed on the simulation devices meet the standards of that guide. Additional tasks such as advanced emergency procedures will be included as well. Students may enroll 2 times for a maximum of 2 credits. May be taken on a CR/N basis. (3 hrs. lab. per week)

**AVIT 104 Aviation History (3)**
Prerequisite or Co-requisite: AVIT 102
**AVIT majors only.** This course will cover the history of aviation from its very beginnings through the space program. It will be a composite of lecture and videos and will also require written research papers. (3 hrs. lect. per week)

**AVIT 208 Aviation Safety (3)**
Prerequisite or Co-requisite: 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)

**AVIT 222 Instrument Rating Course (5)**
Co-requisite: AVIT 222L
**AVIT majors only.** This course will include study necessary to earn an Instrument Rating – Airplane. Instruction includes aeronautical subject areas including Instrument Flight Regulation (IFR) considerations, flight instruments, basic altitude instrument flying, radio navigations and flight navigation aids. The initial training will involve programming the G1000 for IFR flight planning and instrumentation. The operation, interpretation and practical use of VOR, ADF, DME, RNAV, ILS, RMI, HSI, and Flight Director Systems will be presented. Related Federal Air Regulations (FAR), procedures and publications necessary for operating IFR in the national airspace system are studied along with en route and terminal procedures, operation, interpretation and practical use of SID, STARs, and GPS. Important is acquiring the understanding, fundamental skills and confidence to safely operate an aircraft under instruments conditions, utilizing the available navigational equipment. The student must complete the appropriate flight lessons with the college’s flight provider, complete the appropriate academic lessons, plus pass FAA Instrument Pilot-Airplane knowledge and practical examinations to satisfactorily complete the course. Repeatable one time. (5 hrs. lect. per week)

**AVIT 222L Instrument Pilot Simulation Lab I (1)**
(formerly AVIT 197B)
Prerequisite or Co-requisite: AVIT 222
**AVIT majors only.** This course provides a bridge between the theory presented in AVIT 222 and the practical application of that theory in aircraft operated by the flight program. AVIT 222L utilizes PC-based simulation devices in which students will perform all maneuvers required by the FAA’s Practical Test Guide for Instrument Pilots, with a requirement that maneuvers performed on the simulation devices meet the standards of that guide. Additional tasks such as advanced emergency procedures will be included as well. Students may enroll 2 times for a maximum of 2 credits. May be taken on a CR/N basis. (3 hrs. lab. per week)

**AVIT 228 Aviation Weather (3)**
Prerequisite or Co-requisite: AVIT 102 or Private Pilot Certificate
**AVIT majors only.** This course studies atmospheric and weather phenomenon associated with flight operations. Studies include the cause of weather, thermal effects, atmospheric patterns, air masses, moisture horizontal and vertical pressure patterns, circulation, wind, atmospheric stability, and fronts. Emphasis is placed on weather hazards, thunderstorms, fog, icing, turbulence and safe flight operations. Use of weather reports and forecasting in flight planning and the effects of weather on aircraft equipment and human factors under instrument flight conditions is presented. (3 hrs. lect. per week)

**AVIT 250 Human Factors and Crew Management (3)**
Prerequisite or Co-requisite: AVIT 102
**AVIT majors only.** This course introduces the student to the human element of the "human machine
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interface” in aviation. The course is designed to provide students 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. The significance of flight crew management, operations and interaction in developing a professional flight management team is emphasized through studies and practical application. Repeatable one time. (3 hrs. lect. per week)

AVIT 290 AIRPLANE PILOT QUALIFICATION (5)
Prerequisite: Must have a FAA commercial pilot’s certificate, Rotorcraft Category, Helicopter Class ratings with an Instrument rating, and current FAA medical clearance
Recommended Prep: 250 hours flight time
This course is designed for helicopter pilots. A pilot applicant must hold the level of pilot certificate for the additional aircraft category and class rating desired. The Part 141 course provides qualified rotorcraft pilots instruction to add a FAA Commercial Airplane Multi-engine Land Category and class rating with an Instrument Airplane rating to their existing commercial certificate. An optional FAA Commercial Airplane Single Engine additional class certificate may be immediately added under Part 61 after completion of AVIT 290. The student must complete the appropriate flight lessons with the college’s flight provider, complete the appropriate academic lessons, and pass the FAA commercial airplane multi engine knowledge and practical examinations to satisfactorily complete the course. (5 hrs. lect. per week)

AVIT 305 AIRLINE OPERATIONS AND MANAGEMENT (3)
Prerequisite or Co-requisite: AVIT 102
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)

AVIT 323 COMMERCIAL PILOT COURSE (3)
Co-requisite: AVIT 323L
Instructor approval based on Instrument Rating required.
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. Students must complete the appropriate flight lessons with the college’s flight provider, complete the appropriate academic lessons, plus pass the Commercial Pilot-Airplane knowledge and practical tests. (3 hrs. lect. per week)

AVIT 323L COMMERCIAL PILOT SIMULATION LAB I (1)
Prerequisite or Co-requisite: AVIT 323
AVIT Majors only. This course provides a bridge between the theory presented in AVIT 323 and the practical application of that theory in aircraft operated by the flight program. AVIT 323L utilizes PC-based simulation devices in which students will perform all maneuvers required by the FAA’s Practical Test Guide for Commercial Pilots, with a requirement that maneuvers performed on the simulation devices meet the standards of that guide. Additional tasks such as advanced emergency procedures will be included as well. Students may enroll 2 times for a maximum of 2 credits. May be taken on a CR/N basis. (3 hrs. lab. per week)

AVIT 324 AIRCRAFT SYSTEMS AND INSTRUMENTS (3)
Prerequisite or Co-requisite: AVIT 102
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)

AVIT 325 ADDITIONAL AIRCRAFT CLASS RATING - MULTIENGINE (3)
Prerequisite or Co-requisite: AVIT 324
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. Repeatable one time. (3 hrs. lect. per week)

AVIT 344 CFI CERTIFICATION (5)
Prerequisite: AVIT 325 or FAA Commercial Pilot Certification and Instrument Rating
This course provides students 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 student must complete the appropriate academic and flight lessons to satisfactorily complete the course. (5 hrs. lect. per week)

Communication Arts (CA)

CA 100 SURVEY OF GRAPHIC STYLES (3)
Prerequisite: ENG 22/60 or ESL 23, 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. The course will include an overview of production methods used in the communication arts today. (3 hrs. lect. per week)

CA 101 POWER OF ADVERTISING (3)
Prerequisite: ENG 22/60 or ESL 23, 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)
Students who place below ENG 22 and/or MATH 24 based on ACT Compass placement test scores, are required to enroll in Essential ENG and/or MATH classes in their first semester at Honolulu CC.

CA 121 ART AND MEDIA PREPARATION I (4)  
CA majors only. Art and Media Preparation I focuses on the preparation and the creation of media assets of art work for printing and web delivery. Emphasis is on Illustrator and PhotoShop for direct and indirect input to include drawing, tracing, manipulating, and motion imaging for importing/exporting. (4 hrs. lect./demo. per week)

CA 122 COPY PREPARATION (4)  
CA majors only. Copy Preparation focuses on preparing text for print production and web delivery using appropriate programs in combination with applicable hardware. Emphasis is on skill development in typesetting to include understanding type fundamentals, fonts, typographic imaging for special effects, as well as type for the web. (4 hrs. lect./demo. per week)

CA 123 COLOR THEORY AND ISSUES (4)  
CA majors only. Color is the study of basic color theories that focuses on understanding hue, value and saturation as it applies to the perception of color and color mixing to control contrasts, illusions, and spatial effects. Some of the issues include: digital color and its differences from pigment-based color; color spaces; hexadecimal colors on through digital display concerns on resolution and its effect on color. (4 hrs. lect. per week)

CA 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 solve 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 delivery formats. Students may enroll 2 times for a maximum of 8 credits. (4 hrs. lect. per week)

CA 131 ART AND MEDIA PREPARATION II (4)  
Prerequisite: CA 121  
Art and Media Preparation II focuses on the preparation and the creation of media assets of art work for printing and web delivery. Emphasis is on digital photographs and basic video editing to prepare video clips for use as assets in other media. Topics to also include color and color correction, calibration and compression issues. (4 hrs. lect. per week)

CA 132 PAGE COMPOSITION (4)  
Prerequisite: CA 121 and CA 122  
CA majors only. Page Composition is a design and layout course for preparing digital files primarily for offset print production while addressing web layout differences. Emphasis is on composing layouts for brochures, newspaper ads and other print formats incorporating special effects, as well as single, spot and full color separations and trapping. (4 hrs. lect. per week)

CA 134 DIGITAL PHOTOGRAPHY (4)  
Introduction to digital photography. Emphasis on tools, techniques, and software used to acquire and manipulate digital images. Digital camera required. (4 hrs. lect. per week)

CA 135 TYPOGRAPHIC DESIGN (4)  
Prerequisite: CA 122  
Prerequisite or Co-requisite: CA 125  
CA majors only. A design course emphasizing the function of type to convey a message, establish a mood, attract attention, and/or create emphasis through typographic design projects that use type as the primary element in composition. Topics to include historical and contemporary type issues as well as web specific issues. Students may enroll 2 times for a maximum of 8 credits. (4 hrs. lect./demo. per week)

CA 142 PAGE AND WEB LAYOUT (4)  
Prerequisite: CA 131 and CA 132  
CA majors only. A composing course for preparing and managing digital media assets and layouts for web delivery and print production. Emphasis is on multiple deliveries and encompasses understanding of internet technologies and services. (4 hrs. lect. per week)

CA 143 PREPRESS AND DIGITAL PRINTING (4)  
Prerequisite: CA 123 and CA 132  
CA majors only. Prepress and Digital Printing focuses on correcting and printing composited page layout files. Emphasis is on the preparation of the mechanical to successfully output to a digital device. Topics include color management, preflighting, printing, line conversion, full color separation, as well as hard and soft proofing. Students may enroll 2 times for a maximum of 8 credits. (4 hrs. lect. per week)

CA 145 GRAPHIC DESIGN (4)  
Prerequisite: CA 100, 101, 123, 132, 135  
CA majors only. An advanced course in design solutions for various print related needs such as posters, brochures, publications, symbols and corporate systems. Topics to include web design principles as well. Communication skills to include oral, written and visual presentation. Students may enroll 2 times for a maximum of 8 credits. (4 hrs. lect. per week)

CA 146 ADVERTISING DESIGN (4)  
Prerequisite: CA 100, 101, 123, 132, 135  
CA majors only. An 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 is on art direction and techniques used in the development of an ad campaign. Topics will include web and social media issues. Students may enroll 2 times for a maximum of 8 credits. (4 hrs. lect. per week)

CA 150 SPECIAL PROJECTS (4)  
Prerequisite: CA 132  
CA majors only. An advanced course that provides students with on-the-job experience in a classroom environment. Emphasis is on producing posters,
Students who place below ENG 22 and/or MATH 24 based on ACT Compass placement test scores, are required to enroll in Essential ENG and/or MATH classes in their first semester at Honolulu CC.

- **CENT 110 INTRODUCTION TO INFORMATION SYSTEMS (3)**
  Prerequisite: ENG 22/60 or ESL 23, OR Placement in ENG 100; “C” or higher in MATH 25, OR Placement in MATH 103 or MATH 135 or higher; and ICS 100 or ICS 101
  This course provides an overview of Information Technology and introduces Internet resources and the fundamental concepts and skills of software development. Topics related to Internet resources include terminology, file formats, naming conventions, and current issues related to the Internet. Students will also learn basic programming skills and software development including discussion of compilers, interpreters, clients and servers, naming issues, programming languages and syntax. Another course may be substituted if ICS 111 has already been completed. Cross-listed as ICS 110. (2 hrs. lect.; 3 hrs. lab. per week)

- **CENT 112 FUNDAMENTALS OF ELECTRONICS (4)**
  Prerequisite: “C” or higher in ENG 22/60 or ESL 23, OR Placement in ENG 100; AND “C” or higher in MATH 24, OR Placement in MATH 25
  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. Students will build and test their own electronic circuits. (3 hrs. lect.; 3 hrs. lab. per week)

- **CENT 116 SECURITY AWARENESS CONCEPTS AND PRINCIPLES (1)**
  Prerequisite: ICS 100 or ICS 101
  This course provides a basic survey of IT security awareness and data confidentiality, using a broad, easy to understand approach that explains the value of securing data, both for individuals and organizations. The class provides an overview of legislation, local, state, and federal privacy policies and liability of individuals and institutions related to data confidentiality and integrity. The course introduces risk management, security policies, and common threats and countermeasures. The course also presents best practices in access control and password policies. (1 hr. lect. per week)

- **CENT 130 MICROCOMPUTER OPERATING SYSTEMS (4)**
  Prerequisite: ENG 22/60 or ESL 23, OR Placement in ENG 100; “C” or higher in MATH 25, OR Placement in MATH 103 or MATH 135 or higher; and ICS 100 or ICS 101
  This course introduces features of microcomputer operating systems, providing students with a solid background in installation, configuration, and management of operating systems. (3 hrs. lect.; 3 hrs. lab. per week)

- **CENT 131 MICROCOMPUTER HARDWARE (4)**
  Prerequisite: ENG 22/60 or ESL 23, OR Placement in ENG 100; “C” or higher in MATH 25, OR Placement in MATH 103 or MATH 135 or higher; and ICS 100 or ICS 101
  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 130 and CENT 232, will help prepare the student to take the A+ Certification Exam. (3 hrs. lect.; 3 hrs. lab. per week)

- **CENT 132 ICT SUPPORT (4)**
  Prerequisite: ENG 22/60 or ESL 23, OR Placement in ENG 100; “C” or higher in MATH 25, OR Placement in MATH 103 or MATH 135 or higher; AND ICS 100 or ICS 101
  This course provides the student with an introduction to Information and Communication Technology (ICT) support. The student will learn how to install, configure and maintain devices, PCs and software. Additional topics in wired and wireless networking, security and troubleshooting are also covered in this course. This course is based upon ICT industry certification standards. (3 hrs. lect.; 3 hrs. lab. per week)

- **CENT 140 COMPUTER NETWORKING I (4)**
  Prerequisite: CENT 132
  This course introduces the OSI and TCP/IP models, industry standards, commonly used network topologies, IPv4 and IPv6 addressing, basic network copper cabling, routing and switching concepts, VLANs, distance vector and link state routing protocols, ACLs, DHCP, NAT, and the configuration and use of routers and switches in the network. This course
Students who place below ENG 22 and/or MATH 24 based on ACT Compass placement test scores, are required to enroll in Essential ENG and/or MATH classes in their first semester at Honolulu CC.

CENT 227 NETWORKING WITH TCP/IP (4)
Prerequisite: CENT 140
This course covers the essentials of networking computers using the TCP/IP protocol. Students examine the OSI model layers 2 through 7 in great detail. Lab work includes using a protocol analyzer to view and analyze network traffic. Credit may be received for only CENT 227 or for ICS 227, but not for both. (3 hrs. lect.; 3 hrs. lab. per week)

CENT 228 SYSTEM ADMINISTRATION & TCP/IP NETWORKING WITH UNIX/LINUX (4)
Prerequisite: CENT 110
Prerequisite or Co-requisite: CENT 140
The System Administration part of this course introduces essentials of maintaining a computer that uses UNIX or Linux operating systems. Students install the operating system, maintain user accounts, manage file systems and processes, install and configure software, and perform routine system maintenance and backup functions. The TCP/IP Networking with UNIX/Linux part of the course examines the TCP and IP protocols. Students will review networking principles and TCP/IP network architecture. Students will use a protocol analyzer to examine data packets at the bit level for a variety of protocols including Ethernet; Address Resolution Protocol (ARP); IP routing; Internet Control Messaging Protocol (ICMP); the User Datagram Protocol (UDP); Transmission Control Protocol (TCP); and the Domain Name System (DNS). (3 hrs. lect.; 3 hrs. lab. per week)

CENT 231 TELECOMMUNICATIONS (4)
Prerequisite: CENT 140 and PHYS 105
This course provides an introduction to telecommunication systems with an emphasis on digital data communication. Topics 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)

CENT 232 PC DESKTOP AND PRINTER SUPPORT (4)
Prerequisite: CENT 140
This course will provide a basic understanding of computer printers and multifunction device technologies, installation and troubleshooting. Students will learn and use technical and customer service skills to perform hardware and software installation, hardware and software configuration, troubleshoot interoperability problems, support and educate end users on the client desktop environment. The Windows platform is emphasized. (3 hrs. lect.; 3 hrs. lab. per week)

CENT 240 COMPUTER NETWORKING II (4)
Prerequisite: CENT 140
This is an intermediate course in computer networking. Hierarchical and scalable network design concepts are introduced. Topics include LAN redundancy, link aggregation, wireless LANs, OSPF, EIGRP, WAN technologies, point to point connections, Frame Relay, NAT, options for broadband WAN connections, remote access connections and security using VPNs and IPSec, and network monitoring and troubleshooting. This course helps to prepare the student for the Cisco Certified Network Associate (CCNA) Routing and Switching exam. (3 hrs. lect.; 3 hrs. lab. per week)

CENT 253 SYSTEM ADMINISTRATION WITH UNIX/LINUX II (4)
Prerequisite: CENT 130
This course introduces essentials of maintaining a computer that uses the UNIX or Linux operating systems. Students install the system, maintain user accounts, manage file systems and processes, install and configure software and hardware, and perform routine system maintenance and backup functions. Students learn accepted practices and responsibilities of system administrators. (3 hrs. lect.; 3 hrs. lab. per week)

CENT 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)

CENT 272 NETWORK OPERATING SYSTEMS II (4)
(Changed to CENT 372, effective Fall 2008)

CENT 275 SECURITY ESSENTIALS (3)
Prerequisite: CENT 228
Prerequisite or Co-requisite: CENT 240 and CENT 270
This course will provide the student an introduction to the basics of information security. Topics include risk identification and mitigation; security controls used to maintain confidentiality, integrity and availability; and the identification of appropriate technologies and products used to secure an information system. Awareness of applicable policies, laws and regulations, infrastructure, application, and information security are also discussed in this course. (2 hrs. lect.; 3 hrs. lab. per week)

CENT 280 DATABASE SYSTEMS I (3)
Prerequisite: CENT/ICS 110 and CENT 132
CENT 280 is a prerequisite for the CENT APC Program. CENT and ICS majors only. This course will introduce the student to the field of database systems. Students will learn concepts, principles, and types of database models including: flat file, relational, object relational and object-oriented. Extensive coverage of modeling and design of common database systems like relational databases will be the major focus of this course. Students will learn concepts and principles of database query languages, such as structured query language (SQL). (2 hrs. lect.; 3 hrs. lab. per week)
Students who place below ENG 22 and/or MATH 24 based on ACT Compass placement test scores, are required to enroll in Essential ENG and/or MATH classes in their first semester at Honolulu CC.

**CENT 285 Introduction to Internet Applications/Web Applications (3)**  
**Prerequisite:** ICS 111 and CENT 280  
This course will introduce the student to the fields of Internet applications and Web applications. Students will learn concepts, technologies, and principles that support these applications including the development of an application architecture, an interface design, implementation of business rules and storage of data necessary for modern interactive applications. Students will also become familiar with special considerations to be accounted for when developing these types of applications including performance, security, and other related issues. (2 hrs. lect.; 3 hrs. lab. per week)

**CENT 290V CENT Internship (1-4)**  
**Prerequisite:** CENT 140  
**Instructor approval required.**  
**CENT majors only.** CENT Internship provides instruction and hands-on work experience related to the major field of interest, under the guidance of an Honolulu CC faculty member and a work site 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, CENT 290V/293V may be repeated for up to 8 credits. However, only 2 credits can be applied toward CENT program requirements. (5 hrs. work experience per week per credit)

**CENT 293V Cooperative Education (1-4)**  
**Prerequisite:** CENT 140  
**Instructor approval required.**  
**CENT majors only.** Cooperative Education provides instruction and paid hands-on work experience related to the major field of interest, under the guidance of an Honolulu CC faculty member and a work site 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, CENT 290V/293V may be repeated for up to 8 credits. However, only 2 credits can be applied toward CENT program requirements. (5 hrs. work experience per week per credit)

**CENT 300 Systems Analysis and Design (3)**  
**Prerequisite:** CENT 280  
**Prerequisite or Co-requisite:** CENT 275  
This course will provide the student with a practical approach to systems analysis and design using a blend of traditional developments and current technologies. The student will learn how to apply the five phases of the systems development life cycle. (2 hrs. lect.; 3 hrs. lab. per week)

**CENT 305 Information Systems Security (3)**  
**Prerequisite or Co-requisite:** CENT 275  
This course is designed to introduce students to the fundamental concepts of information systems security. Students will learn the basics of developing a security policy, network security, security software tools, layered security, incident handling, intrusion detection and legal issues. Network security devices such as firewalls and packet filters will also be featured. (3 hrs. lect. per week)

**CENT 310 Network Security (3)**  
**Prerequisite or Co-requisite:** CENT 275  
This course introduces the student to the various methodologies for defending a network. Security is presented from the perspective of Defense in Depth. The students will be exposed to information system vulnerabilities and threats along with various methods of mitigation. The student will be introduced to the concepts, principles, types and topologies of firewalls including: packet filtering, proxy firewalls, application gateways, and stateful inspection. This course will expose the student to the various defense methodologies associated with Virtual Private Networks (VPN), Host Intrusion Detection Systems (HIDS) and Network Intrusion Detection Systems (NIDS). The student will also be introduced to securing wireless, voice, and video systems. Securing Internet and collaborative applications will also be discussed. (2 hrs. lect.; 3 hrs. lab. per week)

**CENT 315 Network Management (3)**  
**Prerequisite or Co-requisite:** CENT 275  
This course is designed to introduce students to the basics of managing a computer network. This course will cover the role of the network manager in developing and maintaining a computer networking environment. Concepts such as network planning, network administration, traffic monitoring, and network performance will be covered. Students will learn how to use network management tools. (2 hrs. lect.; 3 hrs. lab. per week)

**CENT 331 Telecommunications II (3)**  
**Prerequisite:** CENT 231 and CENT 140  
**Recommended Prep:** CENT 345  
This course will provide the student with a foundation in connection-oriented networks. SONET, ATM, MPLS and Carrier Ethernet are the featured technologies of this course. Traffic Engineering, Quality of Service, Virtual Private Networks and Transitional Technologies are also covered in this course. (2 hrs. lect.; 3 hrs. lab. per week)

**CENT 340 Advanced Routing (3)**  
**Prerequisite:** CENT 240  
**Recommended Prep:** CCNA  
CENT 340 is a lecture/lab course focusing on advanced networking topics related to routing such as RIP version 2, EIGRP, OSPF, and BGP, route optimization and path control techniques, IPv6, and support for branch offices and mobile workers. This course prepares the student for the CCNP ROUTE certification exam. (2 hrs. lect.; 3 hrs. lab. per week)
Students who place below ENG 22 and/or MATH 24 based on ACT Compass placement test scores, are required to enroll in Essential ENG and/or MATH classes in their first semester at Honolulu CC.

CENT 345 MULTILAYER SWITCHING (3)
Prerequisite: CENT 240
This course covers the features and operation of multilayer switching. Topics include: VLANs, VTP, STP, InterVLAN routing, Multilayer switching features, redundancy, QoS, and LAN security. This course is designed to help prepare the student for the Multilayer Switching CCNP Certification exam. (2 hrs. lect.; 3 hrs. lab. per week)

CENT 350 JUNOS ROUTING (3)
Prerequisite: CENT 240
This course will introduce the student to the Junos Operating System. Routing protocols such as OSPF and BGP, as well as routing instances are featured in this course. Routing policies, filters and class of service are also covered in this course. (2 hrs. lect.; 3 hrs. lab. per week)

CENT 370 INTEGRATED NETWORK APPLICATIONS (3)
Prerequisite or Co-requisite: CENT 275
This course provides an introduction to installing, configuring, and administering various network applications using a variety of network operating systems, such as Windows and Linux. Examples of network applications include messaging systems, naming systems, and other network management systems. (2 hrs. lect.; 3 hrs. lab. per week)

CENT 372 NETWORK OPERATING SYSTEMS II (3)
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. Window server operating systems are emphasized. (2 hrs. lect.; 3 hrs. lab. per week)

CENT 375 VIRTUALIZATION (3)
Prerequisite: CENT 240 and CENT 270
This course will provide the student with a foundation in server and client virtualization. The student will install, configure and manage a server virtual environment. Virtual machines, live motion, monitoring, resource management, virtual networking, data recovery, high availability and fault tolerance are also covered in this course. Data center storage is also a featured topic of this course. Students may enroll 2 times for a maximum of 6 credits. (2 hrs. lect.; 3 hrs. lab. per week)

CENT 377 CLOUD INFRASTRUCTURE AND SERVICES (3)
Prerequisite: CENT 240 and CENT 270
This course will provide the student with an introduction to the technologies used to support traditional, virtualized, and cloud data center environments. Cloud deployment and service models, cloud infrastructure, and the key considerations in migrating to a cloud environment, are covered in this course. Backup/recovery, business continuity, security, and management of cloud environments are topics also covered in this course. (2 hrs. lect.; 3 hrs. lab. per week)

CENT 390 SPECIAL TOPICS IN CENT (3)
Prerequisite or Co-requisite: ENG 209 or 210 or 200; AND MATH 103 or 135 or higher.
Instructor approval required.
This course will provide the student with the opportunity to develop skills in a specialized field of Information Technology. The content of this course will change as technology changes. The student should check with the instructor beforehand to determine the specific content of this course. (2 hrs. lect.; 3 hrs. lab. per week)

Construction Management (CMGT)

CMGT 100 INTRODUCTION TO CONSTRUCTION MANAGEMENT (3)
Prerequisite: ENG 22/60 or ESL 23, OR Placement in ENG 100; Placement in MATH 103 or higher.
CMGT majors only. Introduction to the construction process, including a general overview of organization, relationships, practices, terminology, project types, procurement methods, industry standards, contract documents and career opportunities. (3 hrs. lect. per week)

CMGT 112 AUTOCAD FOR CONSTRUCTION MANAGEMENT (3)
Prerequisite: ENG 22/60 or ESL 23, OR Placement in ENG 100; Placement in MATH 103 or higher.
Instructor approval required.
CMGT majors only. This course is an introduction to basic computer aided drafting and blueprint reading skills based on a residential project as a learning tool. Students will be able to produce a complete set of residential drawings using AutoCAD commands, techniques, tools and principles. Blueprint reading skills will be taught to enhance visualization skills as students learn to produce a set of drawings. (3 hrs. lect. per week)

CMGT 114 MATERIALS AND METHODS IN CONSTRUCTION (3)
Prerequisite: ENG 22/60 or ESL 23, OR Placement in ENG 100; Placement in MATH 103 or higher.
CMGT majors only. An examination of basic framing systems in wood, concrete, and steel. The course is designed to provide an understanding of the materials and methods of construction in residential and commercial type buildings. Additional content includes a survey of the advantages and disadvantages of different types of construction. (3 hrs. lect. per week)

CMGT 122 CONSTRUCTION DRAWING FOR CONSTRUCTION MANAGEMENT (3)
Prerequisite: CMGT 112, CMGT 114.
CMGT majors only. This course introduces the knowledge, skills, and abilities necessary to prepare a complete and comprehensive set of 2D Construction Drawings. Further exploration of materials and methods of construction will be included along with an introduction to building codes and basic design guidelines. There will be a concentration in the use of AutoCAD software. (3 hrs. lect. per week)
Students who place below ENG 22 and/or MATH 24 based on ACT Compass placement test scores, are required to enroll in Essential ENG and/or MATH classes in their first semester at Honolulu CC.

CMGT 123 Building Information Modeling Basics for Construction Management (3)
Prerequisite: CMGT 112
Recommended Prep: CMGT 114
CMGT majors only. This course provides students with a well-rounded knowledge of Autodesk Revit software. All three platforms of Revit will be introduced; Revit Architecture, Revit Structure and Revit MEP (Mechanical, Electrical and Plumbing). (3 hrs. lect. per week)

CMGT 145 Occupational Safety and Health in Construction (3)
Prerequisite: “C” or higher in ENG 22/60 or ESL 23, OR Placement in ENG 100; “C” or higher in MATH 25, OR Placement in MATH 100/103/115; CMGT 100
Recommended Prep: OESM 101
CMGT majors only. Comprehensive overview of techniques and procedures to insure effective control of hazards and accidents in construction and allied industries; emphasis on applicable OSHA and HIOSH standards and related codes. Cross-listed as OESM 145. (3 hrs. lect. per week)

CMGT 193V Cooperative Education (1-4)
Prerequisite: ENG 22 60 or ESL 23, OR Placement in ENG 100; Placement in MATH 103 or higher
Instructor approval required.
CMGT majors only. This course will provide students with the opportunity to acquire on-the-job experience related to classroom and laboratory instruction in carpentry. Students may enroll 4 times for a maximum of 12 credits. (5 hrs. work experience per week per credit)

CMGT 210 Building Information Modeling in Construction Management (3)
Prerequisite: CMGT 123
CMGT majors only. This course provides students with a well-rounded knowledge of BIM Software. Platforms to be covered are AutoDesk Revit and Trimble Sketchup. 3-D printing applications will also be covered. Add on software such as Navisworks, Constructware and their applications in the day-to-day operations of Construction Management will also be studied. (3 hrs. lect. per week)

CMGT 211 Land Surveying for Construction (3)
Prerequisite: “C” or higher in MATH 103
CMGT majors only. This course is a basic course on land surveying. It provides the basic skills of plane surveying, using instruments for distance measurements, angular measurements, and determining elevations. The course provides experience with completing closed traverses and topographic surveying. Computer spreadsheets are utilized to facilitate common calculations associated with plane surveying. (2 hrs. lect.; 3 hrs. lab. per week)

CMGT 214 Building Systems for Construction Management (3)
Prerequisite: CMGT 123
CMGT majors only. This course provides a comprehensive look at building systems, as required by Construction Managers, giving students a thorough understanding of mechanical, electrical and plumbing systems. (3 hrs. lect. per week)

CMGT 216 Construction Law and Contracts (3)
Prerequisite: CMGT 145
CMGT majors only. This course focuses on understanding the relationship between contract documents and the construction process. Students will explore contractual relationships, legal roles and responsibilities, and contract types. General condition clauses that affect levels of decision making authority, project close-out, and the superintendents role as an agent of the contractor will be studied. Students will study legal issues that often result in construction disputes including differing site conditions, time and schedule impacts, change orders, and changed conditions. Students will also study contract dispute resolution including negotiations, alternatives dispute resolutions, and litigation of dispute. (3 hrs. lect. per week)

CMGT 220 Construction Documentation (3)
Prerequisite: CMGT 216
CMGT majors only. Proper construction documentation is essential to an economical and effective system for planning, operating, and controlling a construction project. This course will guide the student in proper forms, form development, and how to adapt forms for your organization. How to write and prepare the various plans required by government agencies is also covered. (3 hrs. lect. per week)

CMGT 224 Introduction to Structural Design (3)
Prerequisite: CMGT 214
CMGT majors only. Introduction to basic knowledge of structural engineering that includes principles of analysis of structures and their application, behavior of materials under loading, selection of construction materials and design fundamentals for RCC and steel structures. Emphasis will be kept on the determination of the nature and amount of stress developed under loads, and the way structures offer resistance to it. Being the most widely used construction materials, Reinforced Concrete (RC) and steel will be covered in detail, though masonry and timber will also be described briefly. Principles of statics and strength of materials including properties of materials, forces, equilibrium, stresses and strains are studied. Emphasis is placed on understanding the behavior or structural components associated with the construction process. (3 hrs. lect. per week)

CMGT 226 Construction Planning and Scheduling (3)
Prerequisite: CMGT 216
CMGT majors only. The theory and practice of planning, scheduling, and reporting for a project through the use of bar chart and Critical Path Methodology. The course provides students with a thorough understanding of project planning and scheduling principles in the construction industry. It introduces various planning and control techniques in an integrated planning and control system. It helps students develop understanding of time, cost, and...
resource management principles as well as the ethical issues involved. The course also provides an overview of advanced project planning concepts. (3 hrs. lect. per week)

CMGT 228 Estimating and Bidding for Construction Management (3)
Prerequisite: CMGT 216
CMGT majors only. This course provides a comprehensive introduction to the estimating practices used in the construction industry. The content is organized around the CSI MasterFormat™ 2004. Students will have the opportunity to provide and prepare estimates using information extracted from BIM software, using ledger sheets, electronic spreadsheets, and others like Sage Timberline Office estimating software. (3 hrs. lect. per week)

Cosmetology (COSM)

COSM 20 Elementary Cosmetology Theory (3)
Prerequisite: High School diploma or equivalent; ENG 19 and/or ENG 21, OR ESL 13 & 14, OR Placement in ENG 22/60 or ESL 23; MATH 9, OR Placement in MATH 24/50/53
Co-requisite: COSM 21L and FAMR 296
COSM majors only. A basic foundation of practical skills in shampooing, hair cutting, styling, hair coloring, permanent waving, nails, and the Hawai‘i State Board Rules and Regulations. (3 hrs. lect. minimum per week)

COSM 21L Elementary Cosmetology Laboratory (10)
Prerequisite: High School diploma or equivalent ENG 19 and/or ENG 21, OR ESL 13 & 14, OR Placement in ENG 22/60 or ESL 23; MATH 9, OR Placement in MATH 24/50/53
Co-requisite: COSM 20 and FAMR 296
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. minimum per week)

COSM 30 Intermediate Cosmetology Theory (3)
Prerequisite: “C” or higher in COSM 20 and in 21L
Co-requisite: COSM 31L and CHEM 105C
COSM majors only. Continuation of scientific theory that acquaints the student with anatomy and physiology, electricity, hair coloring and chemical texturing in correlation to the practical skills of cosmetology. Theoretical knowledge on wigs and hair additions and the Hawai‘i Revised Statues for Cosmetology. (3 hrs. lect. minimum per week)

COSM 31L Intermediate Cosmetology Laboratory (10)
Prerequisite: “C” or higher in COSM 20 and in 21L
Co-requisite: COSM 30 and CHEM 105C
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

COSM 40 Advanced Cosmetology Theory (3)
Prerequisite: “C” or higher in COSM 30 and in 31L
Co-requisite: COSM 41L and PHIL 101
COSM majors only. Theory of salon business and management, decision-making, chemistry and State Board Laws and the review of principles of hair styling, hair cutting, hair coloring, permanent waving, nails, facials and make-up. (3 hrs. lect. minimum per week)

COSM 41L Advanced Cosmetology Laboratory (10)
Prerequisite: “C” or higher in COSM 30 and in 31L
Co-requisite: COSM 40 and PHIL 101
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. minimum per week)

COSM 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 for Cosmetology to qualify for the State Board Examination. Repeatable 3 times. (33 hrs. lect./lab. minimum per week)

COSM 60 Basic Esthetician Theory (5)
Prerequisite: High school diploma and Placement in ENG 22/60 or ESL 23
Co-requisite: 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)

COSM 61L Basic Esthetician Laboratory (5)
Prerequisite: High school diploma and Placement in ENG 22/60 or ESL 23
Co-requisite: 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. minimum per week)

COSM 70 Advanced Esthetician Theory (5)
Prerequisite: “C” or higher in COSM 60 and in 61L
Co-requisite: 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)

COSM 71L Advanced Esthetician Laboratory (5)
Prerequisite: “C” or higher in COSM 60 and in 61L
Co-requisite: 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)

COSM 72V Esthetician Theory and Practice (1–6)
Prerequisite: “C” or higher in COSM 70 and in 71L
Instructor approval required.
COSM majors only. Continuation of esthetician theory and lab. Hours apply toward the 600 hours required for Esthetician to qualify for the State Board Examination. Repeatable 3 times. (20 hrs. lect./lab. minimum per week)

COSM 80V Cosmetology Instructor Training (1–13)
Prerequisite: Valid Cosmetology license, one year Cosmetology full-time work experience and meet all the Hawai‘i State Cosmetology Board Teacher Training requirements; AND ENG 19 and/or ENG 21, OR ESL 13 & 14, OR Placement in ENG 22/60 or ESL 23
Instructor approval required.
COSM majors only. 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. lect./lab. maximum per week)

COSM 93V Cooperative Education (1–4)
Instructor approval required.
Prerequisite: COSM 20, 21L, 30 and 31L; and, 1200 clock hours in Cosmetology
Proof of medical insurance required.
COSM majors only. This course will provide students with the opportunity to acquire on-the-job experience related to classroom and laboratory instruction in Cosmetology. Students may enroll 2 times for a maximum of 4 credits. (5 hrs. work experience per week per credit)

Diesel Mechanics Technology (DISL)
(Course hours are expressed as total hours for a term.)

DISL 20 Technical Practices (2)
Prerequisite: ENG 19 and/or ENG 21, OR ESL 13 & 14, OR Placement in ENG 22/60 or ESL 23; MATH 9, OR Placement in MATH 24/50/53
DISL majors only. Classroom instruction and laboratory training in the identification, 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)

DISL 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)

DISL 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)

DISL 27 Preventative Maintenance (5)
Prerequisite: DISL 20
Classroom instruction and laboratory training in correct procedures and practices of medium/heavy duty truck inspection. Students will learn to perform entry-level technician inspection tasks. (150 hrs. lect./lab. per term)

DISL 31 Drive Train (4)
Prerequisite: DISL 20
Classroom instruction and laboratory training covering both standard (single and multiple countershaft) manual 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. Also included will be 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 component manuals. (120 hrs. lect./lab. per term)

DISL 34 Brakes - Air and Hydraulic (5)
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
Students who place below ENG 22 and/or MATH 24 based on ACT Compass placement test scores, are required to enroll in Essential ENG and/or MATH classes in their first semester at Honolulu CC.

**DISL 36 SUSPENSION AND STEERING (5)**

**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, and computerized wheel alignment. (150 hrs. lect./lab. per term)

**DISL 41 DIESEL ENGINES (8)**

**Prerequisite:** DISL 20  
Instruction will center around the theory and operation of two and four cycle diesel engines. Instruction will include the disassembly, reassembly, maintenance, and repair of Detroit Diesel, Cummins Diesel, Caterpillar Diesel, and International Diesel engines. Cooling systems, lubrication, air and exhaust systems, fuel delivery and injection systems, and starting systems will also be covered. (240 hrs. lect./lab. per term)

**DISL 52 ELECTRICAL/ ELECTRONIC SYSTEMS (8)**

**Prerequisite:** DISL 20  
**Prerequisite or Co-requisite:** PHYS 100 & 100L, or PHYS 197E  
**DISL majors only.** Classroom instruction and laboratory training covering the purpose, design, theory, and operating principles of electrical/electronic systems. Special emphasis will be placed on developing the skills required to test, service, and repair electrical/electronic components and associated systems. (240 hrs. lect./lab. per term)

**DISL 56 HYDRAULICS (2)**

**Prerequisite:** DISL 20  
**DISL majors only.** Instruction beginning with the fundamentals 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)

**DISL 61 HEATING, VENTILATION, AND AIR CONDITIONING (4)**

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, and refrigeration circuits, along with computer controlled climate control systems. (120 hrs. lect./lab. per term)

**DISL 93V COOPERATIVE EDUCATION (1–4)**

**Prerequisite:** ENG 19 and/or ENG 21, OR ESL 13 & 14, OR Placement in ENG 22/60 or ESL 23; MATH 9, OR Placement in MATH 24/50/53  
Instructor approval required.

**DISL majors only.** This course will provide students 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 a maximum of 12 credits. (5 hrs. work experience per week per credit)

**Early Childhood Education (ECED)**

**ECED 105 INTRODUCTION TO EARLY CHILDHOOD EDUCATION (3)**

**Prerequisite or Co-requisite:** ENG 22/60 or ESL 23, OR Placement in ENG 100  
Introduces and explores the historical and fundamental principles of early childhood care and education programs, the variety and scope of programs in the community, issues confronting the field, and career options. Students learn about and practice using observation and assessment tools to record children’s growth and learning. May be taken on a CR/N basis. (3 hrs. lect. per week)

**ECED 110 DEVELOPMENTALLY APPROPRIATE PRACTICES (3)**

**Prerequisite or Co-requisite:** ENG 22/60 or ESL 23, OR Placement in ENG 100  
Provides an overview of the basic attitudes, knowledge and skills necessary for working with children birth through age eight, including those with special needs. Introduces concepts of developmentally appropriate practices including health and safety, the value of play, safe and healthy learning environments and appropriate child guidance. May be taken on a CR/N basis. (3 hrs. lect. per week)

**ECED 127 ISSUES IN DIVERSITY (3)**

**Recommended Prep:** ENG 22/60 or ESL 23  
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)

**ECED 131 EARLY CHILDHOOD DEVELOPMENT: THEORY INTO PRACTICE (3)**

**Prerequisite or Co-requisite:** ENG 22/60 or ESL 23, OR Placement in ENG 100  
Covers principles of human development from conception through early childhood. Focuses on the interrelation of physical, cognitive, emotional and social aspects of the individual during this period and
Students who place below ENG 22 and/or MATH 24 based on ACT Compass placement test scores, are required to enroll in Essential ENG and/or MATH classes in their first semester at Honolulu CC.

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)

**ECED 140 GUIDING YOUNG CHILDREN IN GROUP SETTINGS (3)**
Prerequisite: “C” or higher in ECED 131 and ENG 100
Prerequisite or Co-requisite: ENG 22/60 or ESL 23, OR Placement in ENG 100
Addresses positive ways to support children’s social-emotional development. Focuses on adult-child and child-child interactions and relationships. May be taken on a CR/N basis. (3 hrs. lect. per week)

**ECED 151 FIELD EXPERIENCE PRACTICUM #1 IN EARLY CHILDHOOD EDUCATION SEMINAR (1)**
Prerequisite: “C” or higher in ECED 131 or FAMR 231, and ECED 110
Prerequisite or Co-requisite: ENG 22/60 or ESL 23, OR Placement in ENG 100
Instructor approval required.
A discussion seminar designed to accompany ECED 191 and to support students as they integrate knowledge with practice. May be repeated. Students must be concurrently enrolled in ECED 191. (1 hr. lect. per week)

**ECED 152 EARLY LITERACY DEVELOPMENT (3)**
Prerequisite or Co-requisite: ENG 22 or ESL 23, OR Placement in ENG 100
This course begins with a survey of the history and contemporary issues and trends in early literacy development. It includes an in-depth exploration of how young children learn to read and write and what teachers and caregivers need to know and be able to do to support literacy development from birth through the primary years. (3 hrs. lect. per week)

**ECED 155 CREATIVE ART FOR YOUNG CHILDREN (3)**
Prerequisite: “C” or higher in ECED 110
Prerequisite or Co-requisite: ENG 22/60 or ESL 23, OR Placement in ENG 100
Principles and practices in planning, implementation and assessment of appropriate creative art and aesthetics experiences in early childhood settings. Students will experience diverse art and aesthetics activities that are appropriate for young children. Individual and as a group, the students will then develop appropriate activities and experiences for young children. May be taken on a CR/N basis. (3 hrs. lect. per week)

**ECED 156 MUSIC AND MOVEMENT FOR YOUNG CHILDREN (3)**
Prerequisite: “C” or higher in ECED 110
Prerequisite or Co-requisite: ENG 22/60 or ESL 23, OR Placement in ENG 100
Principles and practices in planning, implementation and assessment of appropriate music and creative movement experiences in early childhood settings. Students will experience diverse activities that are appropriate for young children. Individual and as a group, the students will then develop appropriate activities and experiences for young children. May be taken on a CR/N basis. (3 hrs. lect. per week)

**ECED 157 PUPPETRY FOR YOUNG CHILDREN (3)**
Prerequisite: “C” or higher in ENG 110
Prerequisite or Co-requisite: ENG 22/60 or ESL 23, OR Placement in ENG 100
This course 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. It includes designing meaningful puppetry activities and evaluating those activities when implemented. (3 hrs. lect. per week)

**ECED 158 THE HAWAIIAN CULTURE FOR YOUNG CHILDREN (3)**
Prerequisite or Co-requisite: ENG 22/60 or ESL 23, OR Placement in ENG 100
This course gives an overview of the culture of Hawai‘i that can be brought into the preschool classroom. Students will explore and study different aspects of the culture to identify understandings of the culture that are appropriate for young children. Individually and as a group, the students will develop appropriate activities and experiences for young children. May be taken on a CR/N basis. (3 hrs. lect. per week)

**ECED 170 INTRODUCTION TO WORKING WITH INFANTS AND TODDLERS (3)**
Prerequisite or Co-requisite: ENG 22/60 or ESL 23, OR Placement in ENG 100
Provides an overview of the basic skills needed for working with infants and toddlers their families in group care settings. The course focuses on the pivotal role of the family in supporting each child’s individual development and includes strategies for promoting strong relationships between caregivers and families. Knowledge of development of very young children, infant-toddler caregiving routines, caregiver practices that enrich experiences, and caregiver roles are emphasized. May be taken on a CR/N basis. (3 hrs. lect. per week)

**ECED 191 FIELD EXPERIENCE PRACTICUM #1 IN EARLY CHILDHOOD (3)**
Formerly ECED 191
Prerequisite: “C” or higher in ECED 131 or FAMR 231, and ECED 110
Prerequisite or Co-requisite: ENG 22/60 or ESL 23, OR Placement in ENG 100
Instructor approval required.
A field-based practicum that serves as a mid-program supervised work experience in an early childhood education and care setting. It is designed to support students in integrating content knowledge with practice. (15 hrs. practicum per week)

**ECED 215 HEALTH, SAFETY AND NUTRITION FOR THE YOUNG CHILD (3)**
Prerequisite: “C” or higher in ECED 131 or FAMR 231, AND in ENG 22/60 or ESL 23, OR Placement in ENG 100
Introduces theories and practices for creating and maintaining a safe, healthy learning environment for young children and adults in group settings. Introduces guidelines and practices for providing for
Students who place below ENG 22 and/or MATH 24 based on ACT Compass placement test scores, are required to enroll in Essential ENG and/or MATH classes in their first semester at Honolulu CC.

the nutritional needs of young children and adults in group settings. May be taken on a CR/N basis. (3 hrs. lect. per week)

**ECED 234 Observation and Assessment (2)**
Prerequisite: “C” or higher in ECED 105, ECED 131 AND in ENG 22/60 or ESL 23, OR Placement in ENG 100
Advanced skills in methods of observing and recording behavior and assessing children. May be taken on a CR/N basis. (2 hrs. lect. per week)

**ECED 245 Child, Family and Community (3)**
Prerequisite: ENG 22/60 or ESL 23, OR Placement in ENG 100; and “C” or higher in ECED 105
Develops communication skills for establishing effective relationships with diverse families and other adults. Introduces students to the local resources available for family referral. (3 hrs. lect. per week)

**ECED 257 Early Mathematical Development (3)**
Prerequisite: ECED 110 and MATH 9
This course gives an overview of the theoretical foundations and contemporary practices that support mathematical thinking in young children. The Principles and Standards for School Mathematics by the National Council of Teachers of Mathematics (2000) serve as a guide for the content and inquiry processes that are essential to an effective mathematics curriculum. May be taken on a CR/N basis. (3 hrs. lect. per week)

**ECED 263 Language and Creative Expression Curriculum (3)**
Prerequisite: “C” or higher in ECED 110 and in ENG 22/60 or ESL 23, OR Placement in ENG 100
Theoretical foundation and practice in the planning, implementation and assessment of the language arts and creative expression curriculum. Students must have regular contact with preschool children for implementation of course assignments in a setting approved by the instructor. May be taken on a CR/N basis. (3 hrs. lect. per week)

**ECED 264 Inquiry and Physical Curriculum (3)**
Prerequisite: “C” or higher in ECED 110 AND in ENG 22/60 or ESL 23, OR Placement in ENG 100
Theoretical foundation and practice in the planning, implementation and assessment of the inquiry and physical curriculum. Students must have regular contact with preschool children for implementation of course assignments in a setting approved by the instructor. May be taken on a CR/N basis. (3 hrs. lect. per week)

**ECED 265 Introduction to Children’s Literature (3)**
Prerequisite: ENG 22/60 or ESL 23, OR Placement in ENG 100
Theoretical foundation and practice in the planning, implementation and assessment of the language arts and creative expression curriculum. Students must have regular contact with preschool children for implementation of course assignments in a setting approved by the instructor. May be taken on a CR/N basis. (3 hrs. lect. per week)

**ECED 269 Integrated Curriculum in Early Education (3)**
Prerequisite: “C” or higher in ENG 22/60 or ESL 23, OR Placement in ENG 100
Prerequisite or Co-requisite: “C” or higher in ECED 263 or ECED 264
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)

**ECED 274 Infant-Toddler Environments and Relationships (3)**
Prerequisite: “C” or higher in ECED 170; AND in ENG 22/60 or ESL 23, OR Placement in ENG 100
Recommended Prep: ENG 100
Focuses on the inter-relatedness of and the connections between the care and education environment, teaching and caregiving styles, personal and professional development, curriculum and relationships with parents, families, and co-workers. Current issues and trends in the field of infant and toddler education and care are examined. (3 hrs. lect. per week)

**ECED 275 Including Children with Special Needs (3)**
Prerequisite: “C” or higher in ECED 131
Recent legislation, including the Americans with Disabilities Act and research pertaining to early childhood services suggest a growing emphasis in full inclusion of children with special needs in all early childhood settings (family childcare, preschools, kindergarten, etc.). The research indicates that inclusion with their typically developing peers has significant benefits for young children who are at-risk or demonstrate developmental delays and disabilities. Early childhood personnel are key persons in identifying children who may have developmental delays and disabilities and seeing that they have developmentally appropriate early education experiences similar to those provided to their typically developing peers. (3 hrs. lect. per week)

**ECED 276B Infant-Toddler Seminar: Field Experience in Early Childhood Education II (2)**
Prerequisite: “C” or higher in ECED 151 and ECED 191, and ECED 170, and (ECED 131 or FAMR 231); and in ENG 22/60 or ESL 23, OR Placement in ENG 100
Prerequisite or Co-requisite: ECED 274, and (ECED 263 or ECED 264)
Co-requisite: ECED 296f
Recommended Prep: ECED 215 and ECED 245
Instructor approval required. Seminar for the Infant/Toddler Advanced Field Experience class which provides a culminating supervised work experience in an early childhood education and care setting with infants and toddlers. It is designed to support students in integrating content knowledge with practice. May be taken on a CR/N basis. (2 hr. lect. per week)

**ECED 296C Preschool Seminar: Field Experience in Early Childhood Education II (2)**
Prerequisite: “C” or higher in ECED 151 and ECED 191, and (ECED 131 or FAMR 231); and in ENG 22/60 or ESL 23, OR
Students who place below ENG 22 and/or MATH 24 based on ACT Compass placement test scores, are required to enroll in Essential ENG and/or MATH classes in their first semester at Honolulu CC.

Placement in ENG 100
Prerequisite or Co-requisite: “C” or higher in ECED 263, ECED 264
Co-requisite: ECED 296P
Instructor approval required. Seminar to accompany the Preschool Laboratory Field Experience II class which is the culminating supervised work experience in an early childhood education and care setting. The seminar is designed to support students in integrating content knowledge with practice. May be taken on a CR/N basis. (2 hrs. lect. per week)

ECED 296I INFANT-TODDLER LABORATORY: FIELD EXPERIENCE IN EARLY CHILDHOOD EDUCATION II (2)
Prerequisite: “C” or higher in ECED 151 and ECED 191, and ECED 170, and (ECED 131 or FAMR 231); and in ENG 22/60 or ESL 23, OR Placement in ENG 100
Prerequisite or Co-requisite: ECED 274 and (ECED 263 or ECED 264)
Co-requisite: ECED 296B
Instructor approval required. Provides a culminating supervised work experience in an early childhood education and care setting with infants and toddlers. It is designed to support students in integrating content knowledge with practice. (6 hrs. lab. per week)

ECED 296P PRESCHOOL LABORATORY: FIELD EXPERIENCE IN EARLY CHILDHOOD EDUCATION II (2)
Prerequisite: “C” or higher in ECED 151 and ECED 191; and in ENG 22/60 or ESL 23, OR Placement in ENG 100
Prerequisite or Co-requisite: ECED 274 and (ECED 263 or ECED 264)
Co-requisite: ECED 296C
Instructor approval required. Provides a culminating supervised work experience in an early childhood education and care setting. It is designed to support students in integrating content knowledge with practice. May be taken on a CR/N basis. (6 hrs. lab. per week)

East Asian Language and Literature (EALL)

EALL 271 JAPANESE LITERATURE IN TRANSLATION (TRADITIONAL) (3)
Prerequisite: “C” or higher in ENG 100, OR Placement in ENG 201-296
No knowledge of Japanese language is required. Survey of traditional Japanese literature from ancient times to the mid-nineteenth century. Cross-listed as ENG 271. (3 hrs. lect. per week)

EALL 272 JAPANESE LITERATURE IN TRANSLATION (MODERN) (3)
Prerequisite: “C” or higher in ENG 100, OR Placement in ENG 201-296
No knowledge of Japanese language is required. Survey from mid-nineteenth century to the present. Major emphasis on fiction. Cross-listed as ENG 272. (3 hrs. lect. per week)

Economics (ECON)

ECON 120 INTRODUCTION TO ECONOMICS (3)
Prerequisite: ENG 22/60 or ESL 23, OR Placement in ENG 100; MATH 24 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 Mānoa 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 Mānoa. (3 hrs. lect. per week)

ECON 130 PRINCIPLES OF ECONOMICS I: MICROECONOMICS (3)
Prerequisite: ENG 22/60 or ESL 23, 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 Mānoa for any 2 of the following 3 courses: ECON 120, 130, 131. Note: This course satisfies requirements for Economics and Business majors at UH Mānoa. (3 hrs. lect. per week)

ECON 131 PRINCIPLES OF ECONOMICS II: MACROECONOMICS (3)
Prerequisite: ENG 22/60 or ESL 23, OR Placement in ENG 100; MATH 24 OR Placement in MATH 25
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 Mānoa for any 2 of the following 3 courses: ECON 120, 130, 131. Note: This course satisfies requirements for Economics and Business majors at UH Mānoa. (3 hrs. lect. per week)

Electrical Installation and Maintenance Technology (EIMT)

EIMT 30 ELECTRICAL INSTALLATION THEORY I (4)
Prerequisite: ENG 19 and/or ENG 21, OR “C” or higher in ESL 13 & 14, OR Placement in ENG 22/60 or ESL 23; MATH 9, OR Placement in MATH 24/50/53
Co-requisite: 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)

EIMT 32 ELECTRICAL INSTALLATION I (6)
Prerequisite: ENG 19 and/or ENG 21, OR “C” or higher in ESL 13 & 14, OR Placement in ENG 22/60 or ESL 23; MATH 9, OR Placement in MATH 24/50/53
Co-requisite: EIMT 30
EIMT majors only. This course is designed to provide the
Students who place below ENG 22 and/or MATH 24 based on ACT Compass placement test scores, are required to enroll in Essential ENG and/or MATH classes in their first semester at Honolulu CC.

Course Descriptions - ENG

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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)

EIMT 40 ELECTRICAL INSTALLATION THEORY II (4)
Prerequisite: “C” in EIMT 50 and in EIMT 52
Co-requisite: EIMT 42
EIMT majors only. This course will take students 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)

EIMT 42 ELECTRICAL INSTALLATION II (6)
Prerequisite: “C” in EIMT 50 and in EIMT 52
Co-requisite: EIMT 40
EIMT majors only. A course designed to advance the student to a higher level of electrical installation skills. This course will take students into more complex commercial and industrial wiring techniques. (18 hrs. lab. per week)

EIMT 44 AC/DC SYSTEMS AND EQUIPMENT (4)
Prerequisite: “C” in EIMT 30 and in EIMT 32
Co-requisite: 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)

EIMT 46 ELECTRICAL MAINTENANCE AND REPAIR (6)
Prerequisite: “C” in EIMT 30 and in EIMT 32
Co-requisite: 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 students’ mechanical, manipulative, and troubleshooting skills. Emphasis is placed on methods of installation, maintenance, trouble-shooting and repair of electrical machinery and related control equipment. (18 hrs. lab. per week)

EIMT 50 SOLID STATE CONTROL (4)
Prerequisite: “C” in EIMT 44 and in EIMT 46
Co-requisites: 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)

EIMT 52 SOLID STATE CONTROL LAB (6)
Prerequisite: “C” in ELEC 44 and in EIMT 46
Co-requisite: 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)

EIMT 93V COOPERATIVE EDUCATION (1–4)
Prerequisite: ENG 19 and/or ENG 21, OR “C” or higher in ESL 13 & 14, OR Placement in ENG 22/60 or ESL 23; MATH 9, OR Placement in MATH 24/50/53
Instructor approval required.
EIMT majors only. This course will provide students with the opportunity to acquire on-the-job experience related to classroom and laboratory instruction in electricity. Students may enroll 4 times for a maximum of 12 credits. (5 hrs. work experience per week per credit)

English (ENG)

ENG 8 READING ESSENTIALS I (3)
[FORMERLY ENG 97A]
Prerequisite: Placement in ENG 8
ENG 8 is a course designed to build basic reading and study skills needed to succeed in college. Through practice and engagement in the reading process, students gain fluency and self-confidence in the process of reading. Activities include learning strategies to comprehend simple texts, to increase vocabulary, to identify main ideas, and to locate supporting details. Students will engage in extensive reading. (3 hrs. lect.; 2 hrs. lab. per week)

ENG 9 WRITING ESSENTIALS I (3)
[FORMERLY ENG 98A]
Prerequisite: Placement in ENG 9
This course introduces the writing process and focuses on writing effective sentences to produce coherent paragraphs and short essays. Grammar, mechanisms and punctuation are reviewed. Students will learn to identify and produce a variety of sentences, write and revise multiple drafts, and identify various purposes and audiences for their writing assignments. Students will use the computer and word processing programs to compose, edit, and revise written assignments. They will learn and practice effective study skills to succeed in college and the workplace. (3 hrs. lect.; 1 hr. lab. per week)

ENG 18 READING ESSENTIALS II (3)
[FORMERLY ENG 97B]
Prerequisite: “C” or higher in ENG 8, OR Placement in ENG 18
ENG 18 is a course designed to build essential college reading skills. Students learn technique to better their reading fluency, to understand academic reading materials, and to develop study skill strategies to help them succeed in college. Activities include learning strategies to identify stated and implied main ideas, locate and interpret supporting details, draw conclusions, and summarize. Students will engage in extensive reading. (3 hrs. lect.; 2 hrs. lab. per week)

ENG 19 WRITING ESSENTIALS II (3)
[FORMERLY ENG 98B]
Prerequisite: “C” or higher in ENG 9, OR Placement in ENG 19
This course stresses using the writing process to
Students who place below ENG 22 and/or MATH 24 based on ACT Compass placement test scores, are required to enroll in Essential ENG and/or MATH classes in their first semester at Honolulu CC.

**Eng - Course Descriptions**

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This chart illustrates the sequence of English courses offered at Honolulu CC. Enter English at the level determined by Placement Test, courses taken at Honolulu CC, or courses transferred.

**HONOLULU CC PLACEMENT POLICY**: Students who place below ENG 22 based on ACT Compass placement test scores, are required to enroll in Essentials classes in their first semester at Honolulu CC. Students who place into any Reading or Writing Essentials class, must complete the necessary Essentials course sequence before advancing to ENG 22 or 60.

**Notes:**

1. Placement in ENG 22/60 or ESL 23 or higher, exempts students from Reading Essentials and Writing Essentials.
2. Accelerated ENG 100 with ENG 100S provides an opportunity for students who place into ENG 22/60 to complete ENG 100 in one semester.
3. ENG 201-299 are Writing Intensive (WI) courses. A grade of "C" or higher is required in ENG 100 to enroll in 200-level English courses.
Students who place below ENG 22 and/or MATH 24 based on ACT Compass placement test scores, are required to enroll in Essential ENG and/or MATH classes in their first semester at Honolulu CC.

ENG 21 DEVELOPMENTAL READING (3)
Prerequisite: "C" or higher in ENG 18, OR Placement in ENG 21
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)

ENG 22 INTRODUCTION TO EXPOSITORY WRITING (3)
Prerequisite: "C" or higher in ENG 19 and/or ENG 21, OR "C" or higher in ESL 13 & 14, OR Placement in ENG 22 or ESL 23
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)

ENG 60 TECHNICAL WRITING (3)
Prerequisite: "C" or higher in ENG 19 and/or ENG 21, OR "C" or higher in ESL 13 & 14, OR Placement in ENG 22/60 or ESL 23
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)

ENG 100 COMPOSITION I (3)
Prerequisite: "C" or higher in ENG 22/60 or ESL 23, 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)

ENG 100S COMPOSITION SUPPLEMENT (1)
[FORMERLY ENG 98L]
Prerequisite: "C" or higher in ENG 19 and/or ENG 21, OR "C" or higher in ESL 13 & 14, OR Placement in ENG 22/60 or ESL 23
Co-requisite: Accelerated ENG 100
Instructor Approval Required.
ENG 100S is taken in conjunction with Accelerated ENG 100. Together these courses combine instruction for ENG 22 and ENG 100, or ENG 60 and ENG 100, in an accelerated format designed to allow students to complete college English in a single semester. (1 hr. lect. per week)

ENG 120 ADVANCED TECHNICAL WRITING (3)
Prerequisite: "C" or higher in ENG 22/60 or ESL 23, 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 field. 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)

ENG 201 CREATIVE WRITING (3)
Prerequisite: "C" or higher in ENG 100, OR Placement in ENG 201-296
Practice in writing poems and short stories which includes creative writing assignments, discussion of professional works, and discussion of each student's writing. (3 hrs. lect. per week)

ENG 209 BUSINESS AND MANAGERIAL WRITING (3)
Prerequisite: "C" or higher in ENG 100, OR Placement in ENG 201-296
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)

ENG 210 WRITING TERM PAPERS (3)
Prerequisite: "C" or higher in ENG 100 OR, Placement in ENG 201-296
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)

ENG 250 AMERICAN LITERATURE (3)
Prerequisite: "C" or higher in ENG 100, OR Placement in ENG 201-296
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)

ENG 251 BRITISH LITERATURE TO 1800 (3)
Prerequisite: "C" or higher in ENG 100, OR Placement in ENG 201-296
Study of major British works from the Middle Ages to 1800. (3 hrs. lect. per week)

ENG 252 BRITISH LITERATURE AFTER 1800 (3)
Prerequisite: "C" or higher in ENG 100, OR Placement in ENG 201-296
Study of major British works from 1800 to the present. (3 hrs. lect. per week)

ENG 253 WORLD LITERATURE TO 1600 (3)
Prerequisite: "C" or higher in ENG 100, OR Placement in ENG 201-296
Study of representative works of Classical, Oriental, and European literature from ancient times to the 17th century. (3 hrs. lect. per week)
Students who place below ENG 22 and/or MATH 24 based on ACT Compass placement test scores, are required to enroll in Essential ENG and/or MATH classes in their first semester at Honolulu CC.

**ENG 254 World Literature After 1600 (3)**
Prerequisite: "C" or higher in ENG 100, OR Placement in ENG 201-296
Study of representative works of Oriental, European, and American literature from 1600 to present. (3 hrs. lect. per week)

**ENG 255 Short Story and Novel (3)**
Prerequisite: "C" or higher in ENG 100, OR Placement in ENG 201-296
Study and criticism of short stories and novels and how they are created. (3 hrs. lect. per week)

**ENG 256 Poetry and Drama (3)**
Prerequisite: "C" or higher in ENG 100, OR Placement in ENG 201-296
Study and criticism of drama, biography, and poetry, their evolution and form. (3 hrs. lect. per week)

**ENG 257 Themes in Literature (Alpha)**
Selected themes in major works of various types, cultures, periods. Requires a minimum of 4000 words of writing. Repeatable once only.

**ENG 257C Comedy and Satire in Literature (3)**
Prerequisite: "C" or higher in ENG 100, OR Placement in ENG 201-296
A study of comedy and satire in literature, examining how humor works in writing, looking at the differences of satire, parody, dark humor and light humor. The course analyzes famous and not-so-famous examples of literary humor and explores the social issue behind the surface meaning. (3 hrs. lect. per week)

**ENG 257E Wild Writing: Environmental and Ecological Non-Fiction (3)**
Prerequisite: "C" or higher in ENG 100, OR Placement in ENG 201-296
An examination of ecology and environmental studies, thought, and policy through reading and writing about works of ecological and environmental non-fiction prose concerning people and the planet. The course will focus on basic terminology and concepts of ecological and environmental issues in texts that explore human attitudes toward the wild, the world, and their shifting borders. The focus includes multiple and multi-faceted views of how human beings live, might live, and should live in the world we inhabit today. (3 hrs. lect. per week)

**ENG 257F Women in Literature (3)**
Prerequisite: "C" or higher in ENG 100, OR Placement in ENG 201-296
A thematic study of women in literature. Readings from various types of literature: novels, plays, short stories, and poetry. Focus includes women in various cultures, traditional myths and roles of women, contemporary alternatives, and famous women writers. (3 hrs. lect. per week)

**ENG 257G Hip-Hop Literature and Urban Culture (3)**
Prerequisite: "C" or higher in ENG 100, OR Placement in ENG 201-296
An examination of hip-hop and urban culture as a movement of artistic, social, and political resistance to racial, economic, and gender oppression. With a primary focus on literature, criticism, spoken word poetry, and rap, topics will include language, community, identity, justice, history, and politics. (3 hrs. lect. per week)

**ENG 257J J. R. R. Tolkien (3)**
Prerequisite: "C" or higher in ENG 100, OR Placement in ENG 201-296
This course examines the writings of J. R. R. Tolkien. Tolkien's themes, characters, images, symbols, and use of language in his novels will be studied. Tolkien's storytelling techniques and the structure of his novels will be analyzed as will the sources and origins of his books. Tolkien's artistic achievements and the success of the films of his novels in translating his themes, characters, imagery and storytelling techniques to the cinema will be evaluated. (3 hrs. lect. per week)

**ENG 257K C. S. Lewis (3)**
Prerequisite: "C" or higher in ENG 100, OR Placement in ENG 201-296
This course examines the writings of C. S. Lewis and will discuss the themes, characters, images, and symbols in his novels The Chronicles of Narnia and his space trilogy. Lewis's storytelling techniques and the structure of his novels will be analyzed as will the sources and origins of his books. His non-fiction writings will also be touched upon. Lewis's artistic achievements and the relative successes of the films of his novels throughout the years in translating his novels to the cinema will be evaluated. (3 hrs. lect. per week)

**ENG 257L Literature and the Sea (3)**
Prerequisite: "C" or higher in ENG 100, OR Placement in ENG 201-296
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)
English For Non-Native Speakers Sequence Chart

This chart illustrates the sequence of ESL and ICE courses offered at Honolulu CC for non-native students. Enter at the level determined by Placement Test, courses taken at Honolulu CC, or courses transferred.

**NON-CREDIT COURSES**

Introduction to College English (ICE)

ICE 3 → ICE 4 → ICE 5 → ICE 6

**CREDIT COURSES**

English as a Second Language (ESL)

LEVEL 1

ESL 3 (9) → ESL 4 (3)

LEVEL 2

ESL 13 (9) → ESL 14 (3)

ESL 23 (3) → ESL 24 (3)

ENG 100 (3)

Revised 3/3/14

**ENG 257Q Modern Fantasy Literature and Film from Peter Pan to Edward Colleen (3)**

*Prerequisite: “C” or higher in ENG 100, OR Placement in ENG 201-196*

This course examines fantasy literature and film in the 20th and early 21st century and will discuss the themes, characters, images, and symbols in fantasy novels and films. The reasons for the resurgence in the popularity of fantasy in our era, storytelling techniques, and the structure of the novels and films will be analyzed as will the sources and origins of the books and films we consider. The artistic achievements and the relative successes of the books and films will be evaluated. (3 hrs. lect. per week)

**ENG 257S Comic Books, Literature and Society (3)**

*Prerequisite: “C” or higher in ENG 100, OR Placement in ENG 201-296*

While comic books are often derided for being immature examples of escapist entertainment or, as in the 1950s, for encouraging perverse behavior, comic books and superheroes have always provided an excellent barometer for measuring American society in general—Superman, Captain America, and others as instruments for propaganda; the Fantastic Four, Iron Man and Hulk as expressions of American Cold War power yet also reflecting social anxieties about nuclear war; Spider-Man, Dr. Strange and others embracing the values of the counter-culture and the Punisher and Frank Miller’s The Dark Knight Returns embodying the Reagan-era backlash against the counter-culture; The X-Men and multiculturalism and gay rights. (3 hrs. lect. per week)

**ENG 257X Literature and Technology (3)**

*Prerequisite: “C” or higher in ENG 100, OR Placement in ENG 201-296*

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)

**ENG 257Y Young Adult Novel (3)**

*Prerequisite: “C” or higher in ENG 100, OR Placement in ENG 201-296*

This course examines the young adult novel, both contemporary and classic, and analyzes and evaluates the themes, topics, structure, storytelling techniques, and literary devices appearing in young adult literature. The primary focus will be on literature, particularly the novel, and the rise of writing about and
for young adults in the twentieth century and beyond. Among others, areas of focus include issues of identity, family, community, and tensions social, economic, and political as encountered by teens becoming adults. The course also examines the genre of young adult literature as a twentieth-century phenomenon for teen readers and the publishing world as well as the growing tradition of translating young adult novels into films. (3 hrs. lect. per week)

**ENG 271 JAPANESE LITERATURE IN TRANSLATION (TRADITIONAL) (3)**
Prerequisite: “C” or higher in ENG 100, OR Placement in ENG 201-296
Survey of traditional Japanese literature from ancient times to the mid-nineteenth century. Cross-listed as EALL 271. (3 hrs. lect. per week)

**ENG 272 JAPANESE LITERATURE IN TRANSLATION (MODERN) (3)**
Prerequisite: “C” or higher in ENG 100, OR Placement in ENG 201-296
Survey from mid-nineteenth century to the present. Major emphasis on fiction. Cross-listed as EALL 272. (3 hrs. lect. per week)

**English as a Second Language (ESL)**

**ESL 3 COLLEGE READING/WRITING SKILLS (9)**
Prerequisites: ICE 6 OR Placement in ESL 3
Co-requisite: ESL 4
This course will provide students 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)

**ESL 4 GRAMMAR I (3)**
Prerequisite: Placement in ESL 4 or instructor approval
Co-requisite: ESL 3
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)

**ESL 13 COLLEGE READING/WRITING SKILLS II (9)**
Prerequisite: “C” or higher in ESL 3 OR Placement in ESL 13
Co-requisite: ESL 14
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)

**ESL 14 GRAMMAR II (3)**
Prerequisite: ESL 4
Co-requisite: ESL 13
This course is a study and practice of intermediate to advanced grammar. Common grammar problem areas will be focused on with required written compositions based on those specific grammar points. It will provide students with a solid foundation in grammar to succeed in subsequent English, liberal arts, and technical/occupational courses. (3 hrs. lect. per week)

**ESL 20 COLLEGE READING/WRITING SKILLS (6)**
This course focuses on the reading/writing problems of students who have completed either ESL 3 or ESL 13 but require additional practice prior to proceeding to the next level of study. It will provide the student with skills necessary to succeed in subsequent ESL, English, liberal arts, and career and technical education 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. (6 hrs. lect. per week)

**ESL 23 INTRODUCTION TO EXPOSITORY WRITING FOR NNS (3)**
[FORMERLY ESL 96]
Prerequisite: ESL 13
This course provides intensive study of structure, usage, and vocabulary of English as a necessary prelude to effective writing. Emphasis is placed on the development of paragraphs to communicate ideas in short papers. Students are encouraged to exercise critical thinking and clear, correct language in their writing. This course is equivalent to ENG 22 but adapted for the special needs and talents of non-native English speakers (NNS). (3 hrs. lect. per week)

**ESL 24 GRAMMAR III (3)**
[FORMERLY ESL 97]
Prerequisite: ESL 14
This course is a study and practice of advanced grammar, covering such topics as verb tense, passive voice, gerunds, infinitives, adjective clauses, indirect speech, and embedded questions. Problematic grammar areas for non-native speakers of English (NNS) at the high intermediate/advanced level will be focused on with subsequent written compositions based on those specific grammar points. (3 hrs. lect. per week)

**Family Resources (FAMR)**

**FAMR 100 PERSONAL AND PROFESSIONAL DEVELOPMENT (3)**
Prerequisite: ENG 19 and/or ENG 21, OR ESL 13 & 14, OR Placement in ENG 22/60 or ESL 23
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)
Students who place below ENG 22 and/or MATH 24 based on ACT Compass placement test scores, are required to enroll in Essential ENG and/or MATH classes in their first semester at Honolulu CC.

FAMR 100A PERSONAL AND PROFESSIONAL DEVELOPMENT (1)
Prerequisite: ENG 19 and/or ENG 21, OR ESL 13 & 14, OR Placement in ENG 22/60 or ESL 23
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)

FAMR 133 DYNAMICS OF FAMILY VIOLENCE (3)
Recommended Prep: ENG 22/60 or ESL 23, OR Placement in ENG 100
Overview of family violence which includes physical and sexual abuse of children, spousal 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)

FAMR 141 PARENTING (3)
Prerequisite: ENG 19 and/or ENG 21, OR ESL 13 & 14, OR Placement in ENG 22/60 or ESL 23
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)

FAMR 230 HUMAN DEVELOPMENT (3)
Prerequisite: ENG 22/60 or ESL 23, OR Placement in ENG 100
Concepts, issues, and theories of human growth and of development from conception to death and a systems approach to inquiry into factors affecting growth and development. (3 hrs. lect. per week)

FAMR 244 AGING (3)
Prerequisite: ENG 22/60 or ESL 23, OR Placement in ENG 100
Basic course in the study of developmental process and problems of aging. Students will be guided to look at aging from a systems approach. Sociological, biological, and cognitive development of the aging individual will be discussed. (3 hrs. lect. per week)

FAMR 296 WORKING WITH PEOPLE (3)
Recommended Prep: ENG 22/60 or ESL 23, 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)

FT 28 INTRODUCTION TO INDUSTRIAL SEWING (3)
Prerequisite: FT 205 and FT 215
An introduction to apparel manufacturing with emphasis on various stitch and seam types utilizing industrial machines and attachments. Career opportunities and industry terminology will also be covered in this course. (3 hrs. lect. per week)

FT 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)

FT 30 BASIC CREATIVE DESIGNING (3)
Prerequisite: FT 36, 205, 215, and 217
The creative process of apparel design is emphasized by developing and producing a collection of garments for industry or entrepreneurship. (2 hrs. lect.; 3 hrs. lab. per week)

FT 32 ADVANCED APPAREL DESIGN (3)
Prerequisite: FT 205 & 215 & 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)

FT 36 DраОING (3)
Prerequisite: FT 205 & 215 & 217
Basic fundamentals of draping with standard and individual forms. (2 hrs. lect.; 3 hrs. lab. per week)

FT 38 DраОING 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)

FT 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)

FT 41 APPAREL DESIGN (3)
Prerequisite: FT 205 & 215 & 217
Translating design sketches into flat patterns and constructing the finished garments. (2 hr. lect.; 3 hrs. lab. per week)

FT 43 CUTTING ROOM FUNCTIONS (3)
Prerequisite: FT 205
Develops an understanding of industry methods and 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)

FT 90 FT SPECIAL TOPICS (3)
Instructor approval required.
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)

FT 93V COOPERATIVE EDUCATION (1–4)
Prerequisite: MATH 9, OR Placement in MATH 50 or higher
Instructor approval required.
FT majors only. This course will provide students with the opportunity to acquire on-the-job experience related to classroom and laboratory instruction in
Fashion Technology. Students may enroll 4 times for a maximum of 4 credits. (5 hrs. work experience per week per credit)

**FT 100 Fashion Modeling (1)**
Prerequisite: FT majors 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. per week)

**FT 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)

**FT 125 Fashion Show Production (3)**
Comprehensive practical experience including all factors required for the preparation and production of fashion shows, clinics, and other fashion promotions. (3 hrs. lect. per week)

**FT 140 Fabric Technology (3)**
Prerequisite: Placement in ENG 22/60 or ESL 23 or higher
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)

**FT 160 Computerized Pattern Grading and Marking (3)**
Prerequisite: FT 43 & 215 & 237 or Instructor’s approval
Prerequisite or Co-requisite: ENG 22/60 or ESL 23, OR Placement in ENG 100
FT majors only. Course covers the knowledge and skills required to use the Gerber Garment Technology (GGT) System to grade and digitize patterns and to prepare production markers. It also covers the GGT system hardware capabilities as well as software programming. (2 hrs. lect.; 3 hrs. lab. per week)

**FT 170 Computerized Pattern Making (3)**
Prerequisite: "C" or higher in FT 160
Prerequisite or Co-requisite: ENG 22/60 or ESL 23, OR Placement in ENG 100
Instructor approval required.
Comment: This is a computerized pattern making course as applied in the garment industry.
FT majors only. This course covers the capabilities of the Gerber Technology (GT) Pattern Design System-PDS and Silhouette. This system is designed to use CAD for specific industry application in pattern making and design. (2 hrs. lect.; 3 hrs. lab. per week)

**FT 193V Cooperative Education (1–4)**
Prerequisite: MATH 9, OR Placement in MATH 50 or higher
Instructor approval required.
FT majors only. This course will provide students with the opportunity to acquire on-the-job experience related to fashion merchandising emphasizing technical and interpersonal aspects. Students may enroll 4 times for a maximum of 4 credits. (5 hours work experience per week per credit)

**FT 200 Culture, Gender and Appearance (3)**
Prerequisite: ENG 22/60 or ESL 23, OR Placement in ENG 100
Social construction of gender within culture and its visual expression through appearance. Analysis of role, identity, conformity, and deviance in human appearance. (3 hrs. lect. per week)

**FT 205 Materials and Methods of Clothing Construction (4)**
Prerequisite or Co-requisite: FT 205
Principles, concepts and procedures for quality construction and custom fitting of clothing. (3 hrs. lect.; 3 hrs. lab. per week)

**FT 215 Flat Patternmaking I (3)**
Prerequisite or Co-requisite: 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)

**FT 216 Fashion Design and Sketching (3)**
Development of apparel design through sketching the fashion figure. (2 hrs. lect.; 3 hrs. lab. per week)

**FT 217 Flat Patternmaking II (3)**
Prerequisite: FT 205 and FT 215; MATH 50 or Placement in MATH 100 or higher
Prerequisite or Co-requisite: ENG 22/60 or ESL 23, OR Placement in ENG 100
Expanding and refining the technical and production methods of flat patternmaking. Applying construction and alteration techniques to samples and final garments. (2 hrs. lect.; 3 hrs. lab. per week)

**FT 237 Pattern Grading (3)**
Prerequisite: FT 215; MATH 50 or Placement in MATH 100 or higher
Prerequisite or Co-requisite: ENG 22/60 or ESL 23, OR Placement in ENG 100
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. (2 hrs. lect.; 3 hrs. lab. per week)

**NOTE:** The following courses have been accepted at the University of Hawai‘i at Mānoa in the Human Resources Department. These are subject to change without prior notice.

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**Honolulu CC**

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Students who place below ENG 22 and/or MATH 24 based on ACT Compass placement test scores, are required to enroll in Essential ENG and/or MATH classes in their first semester at Honolulu CC.

**Filipino (FIL)**

**FIL 101 Elementary Filipino I (4)**
Prerequisite: ENG 19 and/or ENG 21, OR ESL 13 & 14, OR Placement in ENG 22/60 or ESL 23
This course is the first half of Elementary Filipino that teaches basic listening, speaking, reading, and writing skills. Supplemental online or computer-based instruction is required. (4 hrs. lect. per week)

**FIL 102 Elementary Filipino II (4)**
Prerequisite: FIL 101
This course is the second half of Elementary Filipino that teaches basic listening, speaking, reading, and writing skills. Supplemental online or computer-based instruction is required. (4 hrs. lect. per week)

**FIL 201 Intermediate Filipino I (4)**
Prerequisite: FIL 102
This course is the first half of Intermediate Filipino that further develops listening, speaking, reading, and writing skills. Supplemental online or computer-based instruction is required. (4 hrs. lect. per week)

**FIL 202 Intermediate Filipino II (4)**
Prerequisite: FIL 201
This course is the second half of Intermediate Filipino that further develops listening, speaking, reading, and writing skills. Supplemental online or computer-based instruction is required. (4 hrs. lect. per week)

* Native speakers may not take language courses for credit.

**Fire and Environmental Emergency Response (FIRE)**

**FIRE 100 Introduction to Fire Protection (3)**
Prerequisite: “C” or higher in ENG 22/60 or ESL 23, OR Placement in ENG 100; Placement in MATH 24/50
FIRE majors only. 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. May be taken on a CR/N basis. (3 hrs. lect. per week)

**FIRE 102 Fundamentals of Fire Prevention (3)**
Prerequisite: “C” or higher in ENG 22/60 or ESL 23, OR Placement in ENG 100; Placement in MATH 24/50
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)

**FIRE 103 Medical Emergency First Responder (3)**
Prerequisite: “C” or higher in ENG 22/60 or ESL 23, OR Placement in ENG 100; Placement in MATH 24/50
FIRE majors only. 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)

**FIRE 104 Fire Inspector I (3)**
Prerequisite: FIRE 100, 102, and 107
FIRE majors only. This course is designed for the fire inspector ready to advance his/her educational training to the next level. This course delves deeper into the interpretation of applicable codes and standards, covers the procedure for various types of inspections and prepares the inspector for the plans review process. Certification is optional at the end of the course. Students may still pass the course by completing all work and yet may still not pass the Pro Board Examination. This does not mean the student has failed the course. However, the Pro Board Examination will be the Final Examination Test instrument in this course. (3 hrs. lect. per week)

**FIRE 105 Fire Fighting Tactics and Strategies (3)**
Prerequisite: CHEM 105, PHYS 51V and FIRE 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)

**FIRE 106 Medical Emergency First Responder II (3)**
Prerequisite: “C” or higher in ENG 22/60 or ESL 23, OR Placement in ENG 100; Placement in MATH 24/50
FIRE majors only. This course is designed for the fire inspector ready to advance his/her educational training to the next level. This course delves deeper into the interpretation of applicable codes and standards, covers the procedure for various types of inspections and prepares the inspector for the plans review process. Certification is optional at the end of the course. Students may still pass the course by completing all work and yet may still not pass the Pro Board Examination. This does not mean the student has failed the course. However, the Pro Board Examination will be the Final Examination Test instrument in this course. (3 hrs. lect. per week)

**FIRE 108 Wellness/Fitness for Emergency Response Professionals (3)**
Recommended Prep: Medical clearance required
Comment: This is a lecture/lab course requiring physical activity. Students must obtain medical clearance from their physician in order to participate.
FIRE, QEMS and AJ majors only. This course explores the concept of wellness, lifestyle management and fitness and is designed to provide students with the knowledge and skills to improve their own quality of life. This course is designed for individuals who are pursuing a career in Fire and Emergency Response, and it provides clear and objective research-based information pertinent to behavior change, exercise, nutrition, weight management, disease prevention, stress management, and risk reduction. Students will develop personal wellness and fitness including physical, mental, emotional and spiritual domains. Successful completion of this course will help students prepare for the Fire Department Fitness Examinations, and Wellness Fitness Certification Programs. (2 hrs. lect.; 3 hrs. lab. per week)

**FIRE 111 Management in the Fire Service (3)**
Prerequisite: FIRE 280A, FIRE 280B
FIRE majors only. An overview of fire service management theories and application principles in the fire service. Management by objective. Current fire
Students who place below ENG 22 and/or MATH 24 based on ACT Compass placement test scores, are required to enroll in Essential ENG and/or MATH classes in their first semester at Honolulu CC.

FIRE - Course Descriptions

FIRE 100 National Fire Code 1002 Driver/Operator. (3 hrs. lect. per week)
- Enhance student knowledge and skills required by National Fire Code 1002 Driver/Operator.
- Recommended Prep: FIRE 100

FIRE 119B Emergency Medical Technician (3.5)
- Prerequisite: FIRE 103 and a minimum of 12 FIRE credits
- FIRE majors only or instructor approval.
- 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.; 1.5 hrs. lab. per week)

FIRE 126 Legal Aspects of Emergency Services (3)
- Prerequisite: "C" or higher in ENG 22/60 or ESL 23, OR Placement in ENG 100; Placement in MATH 24/50
- FIRE majors only. This course will address the Federal, State, and local laws that regulate emergency services and include a review of national standards, regulations, and consensus standards. (3 hrs. lect. per week)

FIRE 151 Introduction to Wildland Fire Control (3)
- Prerequisite or Co-requisite: 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)

FIRE 152 Wildland Fire Control Field Methods (3)
- Prerequisite of Co-requisite: 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)
FIRE 157 INTERMEDIATE WILDLAND FIRE BEHAVIOR (3)
Prerequisite: “C” or higher in ENG 22/60 or ESL 23, OR Placement in ENG 100; Placement in MATH 24/50
Recommended Prep: FIRE 151
This course is designed to instruct prospective fireline personnel in wildland fire behavior for effective and safe management operations. Fire behavior is not an independent phenomenon – it is the product of the environment in which the fire is burning. In applying this definition to fire, we can then regard fire environment as the conditions, influences, and modifying forces that control the fire behavior. Fire behavior must obey physical laws. We consider certain types of fire behavior unusual or unexpected only because we have failed to evaluate properly the conditions, influences, and forces that are in control. To predict fire behavior, and to control and use fire effectively and safely, we must understand and use the interactions of fire with its environment. This course will examine the fire environment - what it is, how it varies and why, and how fire itself alters the total picture. (3 hrs. lect. per week)

FIRE 193V COOPERATIVE EDUCATION (1–6)
Prerequisite: “C” or higher in ENG 22/60 or ESL 23, OR Placement in ENG 100; Placement in MATH 24/50
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 a maximum of 12 credits. 6 credits can be applied to FIRE elective requirements. (5 hrs. work experience per week per credit)

FIRE 202 FIRE PROTECTION HYDRAULICS AND WATER SUPPLY (3)
Prerequisite: “C” or higher in ENG 22/60 or ESL 23, OR Placement in ENG 100; Placement in MATH 24/50
Recommended Prep: FIRE 100, 102, and MATH 50
FIRE majors only. This course provides a foundation of theoretical knowledge in order to understand the principles of the use of water in fire protection and to apply hydraulic principles to analyze and to solve water supply problems. May be taken on a CR/N basis. (3 hrs. lect. per week)

FIRE 206 BUILDING CONSTRUCTION FOR FIRE PROTECTION (3)
Prerequisite: “C” or higher in ENG 22/60 or ESL 23, OR Placement in ENG 100; Placement in MATH 24/50
Recommended Prep: FIRE 100 and FIRE 102
FIRE majors only. This course provides the components of building construction that relate to fire and life safety. The focus of the course is on firefighter safety. The elements of construction and design of structures are shown to be key factors when inspecting buildings, pre-planning fire operations, and operating at emergencies. (3 hrs. lect. per week)

FIRE 207 HAZARDOUS MATERIALS AWARENESS AND OPERATIONS (3)
Prerequisite: CHEM 105 and FIRE 100
FIRE majors only. 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. The curriculum that will now be used is designed to Nationally certify individuals in Hazardous Materials Operations and Hazardous Materials Awareness. The students will complete a National examination issued by National Fire Protection Professional Qualifications Board (Pro Board) upon completion of this course. Students will need a grade of 70% in order to pass the Pro Board examination. Students who do not pass the exam may receive a passing grade in the course, but will need the Pro Board certification in order to enter the final semester of Pro Board certification courses FIRE 280A (12 credits) and 280B (4 credits) for Firefighter I. (3 hrs. lect. per week)

FIRE 208 AIRCRAFT RESCUE FIRE FIGHTING (3)
Prerequisite: “C” or higher in ENG 22/60 or ESL 23, OR Placement in ENG 100; Placement in MATH 24/50
Recommended Prep: FIRE 100 and FIRE 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)

FIRE 209 HAZARDOUS MATERIALS TECHNICIAN (3)
Prerequisite: “C” or higher in ENG 22/60 or ESL 23, OR Placement in ENG 100; Placement in MATH 24/50
Recommended Prep: FIRE 203,207 , 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)

FIRE 211 HAZARDOUS MATERIALS INCIDENT MANAGEMENT (3)
Prerequisite: “C” or higher in ENG 22/60 or ESL 23, OR Placement in ENG 100; Placement in MATH 24/50
Recommended Prep: FIRE 209
This course is designed to provide students with the information needed to identify hazardous materials products, containers, and emergencies. The information provided will allow students to understand important safety issues dealing with hazardous materials incident management, personal protective equipment selection, Incident Command System functions, site management, and hazard assessment/risk evaluation techniques. May be taken on a CR/N basis. (3 hrs. lect. per week)

FIRE 214 FIRE PROTECTION SYSTEMS (3)
Prerequisite: “C” or higher in ENG 22/60 or ESL 23, OR Placement in ENG 100; Placement in MATH 24/50
Recommended Prep: FIRE 100 and FIRE 102
This course provides information relating to the features of design and operation of fire alarm systems,
Students who place below ENG 22 and/or MATH 24 based on ACT Compass placement test scores, are required to enroll in Essential ENG and/or MATH classes in their first semester at Honolulu CC.

**Food Science and Human Nutrition**

**FSSHN 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:** FSSHN 185 is accepted as a natural science requirement at the University of Hawai’i at Mānoa, UH West O‘ahu, and at other community colleges.

**Geography (GEOG)**

**GEOG 101 The Natural Environment (3)**
Prerequisite: Placement in ENG 22/60 or ESL 23
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)

**GEOG 101L The Natural Environment Laboratory (1)**
Prerequisite or Co-requisite: GEOG 101
Recommended Prep: Completion of or Placement in ENG 22/60 or ESL 23; and MATH 24
Comment: GEOG 101 as a co-requisite is preferred.
This course is an introduction to techniques used to investigate the geographic distribution of physical phenomena on Earth. The laboratory exercises will include a number of examples from Hawai‘i, where unique combinations of global tectonic and atmospheric processes, and geographic isolation have resulted in an extraordinary array of environmental and biotic diversity. May be taken on a CR/N basis. (3 hrs. lab. per week)

**GEOG 102 World Regional Geography (3)**
Prerequisite: Placement in ENG 22/60 or ESL 23
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)

**GEOG 122 Geography of Hawai‘i (3)**
Recommended Prep: Placement in ENG 22 or ESL 23, or higher
Examines Hawai‘i as a unique, special place. Physical geography (volcanoes, erosion, climate, water resources, natural hazards), cultural geography (pre-contact 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)
Students who place below ENG 22 and/or MATH 24 based on ACT Compass placement test scores, are required to enroll in Essential ENG and/or MATH classes in their first semester at Honolulu CC.

**Geology and Geophysics (GG)**

**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)

**GG 101L Introductory Geology Laboratory (1)**
Prerequisite or Co-requisite: GG 101 or GG 103
The study of rocks and minerals, topographic and geologic maps and cross sections. (3 hrs. lab. per week)

**GG 103 Geology of the Hawaiian Islands (3)**
Recommended Prep: Placement in ENG 22/60 or ESL 23
Survey of Hawaiian rocks, minerals, volcanism, erosion, sedimentation, landscape evolution, geologic history, and regional geology. (3 hrs. lect. per week)

**Hawaiian (HAW)**

**HAW 101 Elementary Hawaiian I (4)**
Prerequisite: ENG 19 and/or ENG 21, OR ESL 13 & 14, OR Placement in ENG 22/60 or ESL 23
This course is the first half of Elementary Hawaiian that teaches basic listening, speaking, reading, and writing skills. (4 hrs. lect. per week)

**HAW 102 Elementary Hawaiian II (4)**
Prerequisite: “C” or higher in HAW 101
This course is the second half of Elementary Hawaiian that teaches basic listening, speaking, reading, and writing skills. (4 hrs. lect. per week)

**HAW 201 Intermediate Hawaiian I (4)**
Prerequisite: “C” or higher in HAW 102
This course is the first half of Intermediate Hawaiian. Language learning requires competence in four areas of skill, including listening, speaking, reading, and writing. (4 hrs. lect. per week)

**HAW 202 Intermediate Hawaiian II (4)**
Prerequisite: “C” or higher in HAW 201
This course is the second half of Intermediate Hawaiian. Language learning requires competence in four areas of skill, including listening, speaking, reading, and writing. (4 hrs. lect. per week)

**HAW 261 Hawaiian Literature in English (3) DL**
Prerequisite: “C” or higher in ENG 100, OR Placement in ENG 201-296
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)**

**HWST 105 Mea Kanu: Hawaiian Plants and Their Uses (3)**
Prerequisite: Placement in ENG 22/60 or ESL 23
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 Hawaii when early settlers came and those plants that were brought by them. Cross-listed as BOT 105. (3 hrs. lect./demo. per week)

**HWST 107 Hawaii’s Center of the Pacific (3)**
Prerequisite: Placement in ENG 22/60 or ESL 23
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)

**HWST 110 Wa’a Ho’okele: Hawaiian Sailing Canoes (3)**
Prerequisite: Placement in ENG 22/60 or ESL 23
Recommended Prep: Some knowledge of Hawaiian language and culture
This course introduces students to traditional and modern knowledge about canoe building and coastal sailing in Hawaii. The Spiritual and practical aspects of canoe traditions will be covered along with related knowledge of astronomy, meteorology, oceanography, geography, ethnobotany, and physics. May be taken on a CR/N basis. (3 hrs. lect. per week)

**HWST 110L Wa’a Ho’okele Hawaiian Sailing Canoes Lab (1)**
Prerequisite or Co-requisite: HWST 110
Recommended Prep: Some ocean experience and experience on boats. Knowledge of one’s susceptibility to seasickness and ways of preventing or dealing with seasickness, as needed.
Comment: Concurrent enrollment in or completion of HWST 110 with a “C” or higher grade. Students must pass a swim test during the first three weeks of class: Students will be asked to swim 500 meters and stay afloat for one hour in deep water. Students should also have the ability to jump onto the deck of a boat that is 1-2 feet below the pier level. Some heavy lifting (e.g. pulling up an anchor) may be required.
This course introduces students to the knowledge and skills needed to sail canoes in coastal waters. Students will apply the knowledge acquired in HWST 110 in hands-on activities. Repeatable once. May be taken on a CR/N basis. (3 hrs. lab. per week)

**HWST 212 Hula ‘Olapa: 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,
Students who place below ENG 22 and/or MATH 24 based on ACT Compass placement test scores, are required to enroll in Essential ENG and/or MATH classes in their first semester at Honolulu CC.

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)

**HWST 270 Hawaiian Mythology (3)**  
Prerequisite: HWST 107 or HAW 101; “C” or higher in ENG 100  
Recommended Prep: HAW 102  
Survey of Hawaiian and Polynesian gods, 'umakua, kupua, mythical heroes, heroines, and their kinolau as the basis of traditional Hawaiian and Polynesian metaphor. (3 hrs. lect. per week)

**HWST 281 Ho’okele I: Hawaiian Astronomy and Weather (3)**  
Prerequisite: Placement in ENG 22 or ESL 23, or Instructor consent  
Recommended Prep: HWST 110 and HWST 107. Some knowledge of Hawaiian language and culture.  
An introduction to Hawaiian views of astronomy and weather, required as preparation for sailing a double hull canoe in following semester. Repeatable one time. May be taken on a CR/N basis. (3 hrs. lect. per week)

**HWST 281L Ho’okele I: Hawaiian Astronomy and Weather Lab (1)**  
Prerequisite: Placement in ENG 22 or ESL 23, or Instructor consent  
Prerequisite or Co-requisite: HWST 281  
Recommended Prep: HWST 110 and HWST 107  
Stargazing laboratory to accompany HWST 281. Repeatable one time. May be taken on a CR/N basis. (3 hrs. lect. per week)

**HWST 282 Ho’okele II: Hawaiian Navigation, Weather, Canoe Design and Sail (3)**  
Prerequisite: Placement in ENG 22 or ESL 23; and HWST 281 or Instructor consent  
Recommended Prep: HWST 110 and HWST 107  
Hawaiian Navigation and Voyaging introduces students to traditional knowledge of Hawaiian voyaging and navigation and to the modern revival of voyaging arts in Hawai‘i and the Pacific through a survey of history of navigation; introduction of skills needed to navigate double hulled voyaging canoes; survey of canoe design in Hawai‘i and the Pacific, introduction of sailing dynamics; overview of weather and sea conditions in Hawai‘i and the Pacific; introduction to sail planning including dead reckoning, steering by the stars, and other methods used by traditional navigators. The course places Hawaiian navigation and voyaging in the context of Polynesian and Pacific cultures and the pre-European discovery and settlement of the Pacific islands and its application in the contemporary Pacific. May be taken on a CR/N basis. (3 hrs. lect. per week)

**HWST 282L Ho’okele II: Hawaiian Navigation, Weather, Canoe Design and Sail Lab (1)**  
Prerequisite: Placement in ENG 22 or ESL 23; and HWST 281 or Instructor consent  
Prerequisite or Co-requisite: HWST 282  
Recommended Prep: HWST 110 and HWST 107. Some ocean experience and experience on boats. Knowledge of one’s susceptibility to seasickness and ways of preventing or dealing with seasickness, as needed.  
Comment: Students will demonstrate basic swimming and will be provided personal flotation devices if unable to demonstrate basic swimming. Students should have the ability to jump onto the deck of a boat that is 1-2 feet below the pier level. Some heavy lifting (e.g. pulling up an anchor) may be required.  
Hawaiian Navigation introduces students to hands-on traditional knowledge of Hawaiian voyaging and navigation aboard a double hulled canoe sailing laboratory to accompany HWST 282. Repeatable one time. May be taken on a CR/N basis. (3 hrs. lect. per week)

**HWST 284 He Moku He Wa’a: An Island Is a Canoe (3)**  
Prerequisite: ENG 22/60 or ESL 23, OR Placement in ENG 100  
Recommended Prep: HWST 107, HWST 282  
Comment: Students will demonstrate basic swimming and will be provided personal flotation devices if unable to demonstrate basic swimming. Students should have the ability to jump onto the deck of a boat that is 1-2 feet below the pier level. Some heavy lifting (e.g. lifting an anchor) may be required.  
This course explores the metaphor of an island being a canoe through a survey of traditional resource management in Hawai‘i, its relevance in contemporary society and a survey of voyaging including non-instrument navigation, sail planning and skills needed to sail double hulled canoes. This course also provides students with hands-on experience in voyaging and malama ‘āina and examining the connections between the two. Students may enroll 2 times for a maximum of 6 credits. May be taken on a CR/N basis. (3 hrs. lect. per week)

**HIST 151 World History to 1500 (3)**  
Prerequisite or Co-requisite: ENG 22/60 or ESL 23  
Recommended Prep: ENG 100  
A global and historical survey focusing on human societies and cross-cultural interactions to 1500 C.E. This course analyzes the historical development of human societies and their cultural traditions in all parts of the world, including Africa, the Americas, Asia, Europe, and Oceania. (3 hrs. lect. per week)

**HIST 152 World History since 1500 (3)**  
Prerequisite or Co-requisite: ENG 22/60 or ESL 23  
Recommended Prep: ENG 100  
A global and historical survey focusing on human societies and cross-cultural interactions since 1500 C.E. History 152 explores the dynamic relationships within and between representative modern societies, nations, states and cultures. (3 hrs. lect. per week)

**HIST 231 Modern European Civilization I (3)**  
Prerequisite: ENG 22/60 or ESL 23, or Placement in ENG 100  
Recommended Prep: 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)
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Course Descriptions - HSER

HIST 232 MODERN EUROPEAN CIVILIZATION II (3)
Prerequisite: ENG 22/60 or ESL 23, or Placement in ENG 100 Recommended Prep: 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)

HIST 241 CIVILIZATIONS OF ASIA I (3)
Prerequisite: ENG 22/60 or ESL 23, OR Placement in ENG 100 Recommended Prep: ENG 100 or Placement in ENG 201-296
Historical survey of major civilizations of Asia from earliest times to 1500: East Asia, Southeast Asia, and South Asia. Cross-listed as ASAN 241. Credit may be received for HIST 241 or ASAN 241, but not both. (3 hrs. lect. per week)

HIST 242 CIVILIZATIONS OF ASIA II (3)
Prerequisite: ENG 22/60 or ESL 23, OR Placement in ENG 100 Recommended Prep: ENG 100 or Placement in ENG 201-296
Continuation of HIST 241. Survey of major civilizations of Asia from 1500 to the present: East Asia, Southeast Asia, and South Asia. Cross-listed as ASAN 242. Credit may be received for HIST 242 or for ASAN 242, but not both. (3 hrs. lect. per week)

HIST 246 THE VIETNAM WAR (3)
Prerequisite: ENG 100
Instructor approval required.
Historical survey of the Vietnam War, covering the history of military and political affairs related to the nation of Vietnam from 1945 to 1975. (3 hrs. lect. per week)

HIST 250 WORLD HISTORY and FILM (3)
Prerequisite: “C” or higher in ENG 100
This course examines our varying interpretations of the meaning of global historical events as they have been explored through film. The course will involve viewing films about historical events and issues, and using these films as a pathway to understanding the stories we tell ourselves about our own past and the purposes behind those stories. The course will further explore the use of metaphor and narrative, and perspective in the writing of history. May be taken on a CR/N basis. (3 hrs. lect. per week)

HIST 281 INTRODUCTION TO AMERICAN HISTORY I (3)
Prerequisite: ENG 22/60 or ESL 23
Recommended Prep: HIST 152
Interpretative survey from the earliest settlement to 1865. (3 hrs. lect. per week)

HIST 282 INTRODUCTION TO AMERICAN HISTORY II (3)
Prerequisite: ENG 22/60 or ESL 23
Recommended Prep: HIST 152
Interpretative survey from 1865 to the present. (3 hrs. lect. per week)

HIST 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)

HIST 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)

HIST 296M TOPICS IN HISTORY: INTRODUCTION TO ASIAN AMERICAN HISTORY (3)
Prerequisite: ENG 100
Recommended Prep: HIST 152
This course analyzes the historical development of Asian American communities in the Americas and Hawai‘i. Emphasis will be placed on situating the movements of Asians within local, regional, and transnational frameworks. Students will analyze the significance of race, gender, and class in shaping the experiences of Asian American communities. The communities covered include Chinese, Filipino, Japanese, Korean, South Asian, and Southeast Asian Americans. (3 hrs. lect. per week)

Human Services (HSER)

HSER 40-HSER 43 SERIES SPECIAL TOPICS IN HUMAN SERVICES
(Number of credits depends on topic and 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 and may vary from semester to semester.)

Humanities (HUM)

HUM 50 INTRODUCTION TO REASONING (3)
Recommended Prep: Placement in ENG 22/60 or ESL 23
Learning to avoid black and white thinking with special emphasis on persuasive appeals and scientific conclusions popularized by the mass media. Cross-listed as PHIL 50. (3 hrs. lect. per week)

HUM 193V COOPERATIVE EDUCATION (1–4)
Instructor approval required.
This course will provide students with the opportunity to acquire on-the-job experience related to classroom and laboratory instruction in Humanities. Students may enroll 4 times for a maximum of 12 credits. (5 hrs. work experience per week per credit)

Industrial Education (IED)

Building & Construction (IEDB)

IEDB 295 CONSTRUCTION ACADEMY TEACHER TRAINING COURSE (3)
Recommended Prep: Participation in the Construction Academy
This course is designed for Department of Education
Students who place below ENG 22 and/or MATH 24 based on ACT Compass placement test scores, are required to enroll in Essential ENG and/or MATH classes in their first semester at Honolulu CC.

(See also Computing, Electronics, & Networking Technology)

ICS 100 Computing Literacy and Applications (3)
Recommended Prep: ENG 22/60 or ESL 23, OR Placement in ENG 100
An introductory survey of computers and their role in the information world emphasizing computer terminology, hardware, and software. Opportunities for "hands-on" experience using applications software may include spreadsheets, word processing, presentations, communications, and databases. (3 hrs. lect. per week plus lab assignments.)

ICS 101 Digital Tools for the Information World (3)
Prerequisite: ENG 22/60 or ESL 23, OR Placement in ENG 100
Hands-on computer class with emphasis on producing professional-level documents, spreadsheets, presentations, databases, and web pages for problem solving. Includes concepts, terminology, and a contemporary operating system. Meets requirements for College of Business (UHM and UHH) and UHM's Biology program and Botany Department. (3 hrs. lect. per week)

ICS 102 Introduction to Internet Resources (3)
Prerequisite: Any one of the following: ICS 100, 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. Formerly 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)

ICS 110 Introduction to Information Systems (3)
Prerequisite: ENG 22/60 or ESL 23, OR Placement in ENG 100; "C" or higher in MATH 25, OR Placement in MATH 103 or MATH 135 or higher; and ICS 100 or ICS 101
This course provides an overview of Information Technology and introduces Internet resources and the fundamental concepts and skills of software development. Topics related to Internet resources include terminology, file formats, naming conventions, and current issues related to the Internet. Students will also learn basic programming skills and software development including discussion of compilers, interpreters, clients and servers, naming issues, programming languages and syntax. Cross-listed as CENT 110. (2 hrs. lect.; 3 hrs. lab. per week)

ICS 111 Introduction to Computer Science I (Using Java) (4)
Prerequisite: MATH 103 OR Placement in MATH 135 or higher
Intended for Computer Science majors and all others interested in the first course in programming. An overview of the fundamentals of computer science emphasizing problem solving, algorithm development, implementation, and debugging/testing using an object-oriented programming language. (4 hrs. lect. per week)

ICS 141 Discrete Mathematics for Computer Science I (3)
Prerequisite: MATH 135
Prerequisite or Co-requisite: ICS 111
Recommended Prep: MATH 205
Includes logic, sets, functions, matrices, algorithmic concepts, mathematical reasoning, recursion, counting techniques, probability theory. (3 hrs. lect. per week)

ICS 211 Introduction to Computer Science II (Using Java) (3)
Prerequisite: ICS 111
Reinforce and strengthen problem-solving skills using more advanced features of programming languages and algorithms such as recursion, pointers, and memory management. Emphasize the use of data structures such as arrays, lists, stacks, and queues. (3 hrs. lect. per week)

Interdisciplinary Studies (IS)

IS 20 Introduction to the Trades (3)
This course introduces students to the trades and trade careers using the Contextual Model. Students will be asked to think and solve problems related to projects from the origination of the idea through the actual completion of the project. Students will be required to sequence the project; identify by career the people involved with the project; and identify the permits, licenses, and organizations with jurisdiction over various aspects of the project including the relevant city, county, state and national codes and regulations that apply to the project. Students will be introduced to safety, common materials, hand and power tools, current techniques and blueprint reading. (90 total student contact hours)
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Japanese (JPN)

**JPN 103 Introduction to College (1)**
*Recommended Prep: ENG 19 and/or ENG 21*
This course is designed to orient students to the college setting. Students will be able to identify college resources, explain important policies, demonstrate knowledge of registration procedures, discuss definition of success and evaluate their important life roles. Students may enroll 2 times for a maximum of 1 credit. (1 hr. lect. per week)

**IS 104 Student Leadership Concepts (1)**
*Prerequisite: ENG 19 and/or ENG 21, OR Placement in ENG 22/60 or ESL 23*
*Co-requisite: IS 103 and IS 105*
This course is designed to expose students to the basic concepts essential for an effective student leader. For the context of this course, a student leader is any person who wishes to actively engage others to accomplish change. Students will be able to identify concepts of leadership and followership, understand organizations structures and dynamics, navigate the college environment and affirm their role in the community. This course facilitates a shared learning experience, allowing for networking with other students. Students may enroll 2 times for a maximum of 1 credit. (1 hr. lect. per week)

**JPN 105 Student Leadership Skills (1)**
*Prerequisite: ENG 19 and/or ENG 21, OR Placement in ENG 22/60 or ESL 23*
*Co-requisite: IS 103 and IS 104*
This course is designed to expose students to the basic skills essential for effective student leadership. For the context of this course, a student leader is any person who wishes to actively engage others to accomplish change. Students will be able to identify and implement skills of leadership and followership, bring change to organizations, navigate complex environments independently and understand goal directed processes. This course facilitates a shared learning experience, allowing for networking with other students. Students may enroll 2 times for a maximum of 1 credit. (1 hr. lect. per week)

**IS 106 Sustainable Construction Practices (1)**
The green environment has become an important consideration in the construction industry. Construction craft workers must understand how their daily activities at work and at home affect the green environment. This course explains how the things they do each day can make a difference. They will learn how buildings they construct affect the green environment and how to apply the principles of a green building rating system. (1 hr. lect. per week)

**JPN 24 Japanese Culture (3)**
An introduction to Japanese culture through folklore and related arts and crafts. (3 hrs. lect. per week)

**JPN 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 JPN 101 or 102. (3 hrs. lect. per week)

**IS 101 Student Leadership I (1)**
*Prerequisite: JPN 30*
A second semester course for students who have successfully completed JPN 30. This course is also for students who have taken conversational Japanese at another institution. It may be taken concurrently with JPN 101–102. (3 hrs. lect. per week)

**JPN 101 Elementary Japanese I (4)**
*Prerequisite: “C” or higher in ENG 22 or ESL 23, OR Placement in ENG 100, OR Instructor Approval*
This course is the first half of Elementary Japanese that teaches basic listening, speaking, reading, and writing skills. Supplemental online or computer-based instruction is required. (4 hrs. lect. per week)

**FREN 102 Elementary French II (4)**
*Prerequisite: JPN 101*
This course is the second half of Elementary French that teaches basic listening, speaking, reading, and writing skills. Supplemental online or computer-based instruction is required. (4 hrs. lect. per week)

**JPN 201 Intermediate Japanese I (4)**
*Prerequisite: “C” or higher in JPN 102*
This course is the first half of Intermediate Japanese that further develops listening, speaking, reading, and writing skills. Supplemental online or computer-based instruction is required. (4 hrs. lect. per week)

**JPN 202 Intermediate Japanese II (4)**
*Prerequisite: “C” or higher in JPN 201*
This course is the second half of Intermediate Japanese that further develops listening, speaking, reading, and writing skills. Supplemental online or computer-based instruction is required. (4 hrs. lect. per week)

* Native speakers may not take language courses for credit.

**Journalism (JOUR)**

**JOUR 150 The Media 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)

**JOUR 204 Writing for the Web and Social Media (3)**
*Prerequisite: “C” or higher in ENG 201-296*
An introduction to the theory and practice of writing for the Internet. Application of theory to the unique story-telling style required for communicating effectively on the Web. (3 hrs. lect. per week)
Students who place below ENG 22 and/or MATH 24 based on ACT Compass placement test scores, are required to enroll in Essential ENG and/or MATH classes in their first semester at Honolulu CC.

JOUR 205 NEWS WRITING (3)
Prerequisite: “C” or higher in ENG 100, OR Placement in ENG 201-296
Fundamentals of news style, reporting, etc. (3 hrs. lect. per week)

JOUR 206 NEWS EDITING (3)
Prerequisite: “C” or higher in ENG 100, OR Placement in ENG 201-296
News and photo editing, headline writing, publications makeup. (3 hrs. lect. per week)

JOUR 230 INTRODUCTION TO PUBLIC RELATIONS (3)
Prerequisite: “C” or higher in ENG 100
Recommended Prep: JOUR 150
An introduction to the theories, principles and practice of contemporary public relations, its role in organizations and society. Application of theory and principles to public relations programs. (3 hrs. lect. per week)

JOUR 285V NEWSPAPER LABORATORY (1–3)
Prerequisite or Co-requisite: 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 & Leisure Science (KLS)

KLS 195 PERSONAL HEALTH AND WELLNESS (3)
[FORMERLY HPER 195]
Recommended Prep: ENG 22/60 or ESL 23, 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)

KOR 101 ELEMENTARY KOREAN I (4)
Prerequisite: “C” or higher in ENG 22 or ESL 23, OR Placement in ENG 100, OR Instructor Approval
Listening, speaking, reading, writing, grammar. Meets two hours, two times a week, plus independent listening practice using the Internet. May be taken on a CR/N basis. (4 hrs. lect. per week)

KOR 102 ELEMENTARY KOREAN II (4)
Prerequisite: KOR 101 or Instructor Approval
Listening, speaking, reading, writing, grammar. Meets two hours, two times a week, plus independent listening practice using the Internet. May be taken on a CR/N basis. (4 hrs. lect. per week)

KOR 201 INTERMEDIATE KOREAN I (4)
Prerequisite: “C” or higher in KOR 102, OR Instructor Approval
Korean 201 is the first half of an intermediate course on spoken and written Korean designed for students who expect to further develop their language skills based on the contents covered in KOR 101 and 102. Prerequisite for the course is a “C” grade or higher in KOR 102 OR Instructor Approval. In addition, all students are required to engage in regular independent listening practice using the Internet. Classes will be conducted as much as possible in Korean. May be taken on a CR/N basis. (4 hrs. lect. per week)

KOR 202 INTERMEDIATE KOREAN II (4)
Prerequisite: “C” or higher in KOR 201, OR Instructor Approval
Korean 202 is the second half of an intermediate course on spoken and written Korean designed for students who expect to further develop their language skills based on the contents covered in KOR 101, 102 and 201. Prerequisite for the course is a “C” grade or higher in KOR 201 OR Instructor Approval. In addition, all students are required to engage in regular independent listening practice using the Internet. Classes will be conducted as much as possible in Korean. May be taken on a CR/N basis. (4 hrs. lect. per week)

* Native speakers may not take language courses for credit.

Learning Skills (LSK)

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)

LSK 30A COLLEGE STUDY SKILLS (1)
[FORMERLY LSK 97A]
Students will develop ability to organize materials, take notes in class, utilize the library, manage their time, prepare and take exams, and other related study skills. (1 hr. lect. per week)

LSK 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)

LSK 100 COMPUTER APPLICATIONS AND SKILLS (3)
Prerequisite: ENG 22/60 or ESL 23, 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)

LING 102 Introduction to the Study of Language (3)
Prerequisite: ENG 22/60 or ESL 23, OR Placement in ENG 100
Introduction to the study of language and language-related issues, its relevance to contemporary issues in society, and local language issues. The main objective of this course is to provide students with an opportunity to examine language from a linguist’s perspective—one from an analytical and scientific point of view. Students will learn how language is integrated within cognition, culture, history, and society. (3 hrs. lect. per week)

Marine Biology
(See ZOOL 200)

Marine Technologies
(See Small Vessel Fabrication and Repair)

Mathematics (MATH)

* Students requiring Fundamental Math can complete MATH 9 (Formerly MATH 20B & C & D, or MATH 98M).

MATH 8 Fundamentals of Mathematics - Alternate Credit (5)
[Formerly MATH 97]
This course is designed to allow students enrolled in MATH 9 to receive credit for mastery of some but not all of the SLOs of MATH 9. Students are required to continue to attend MATH 9 and show progress towards the completion of MATH 9 in order to receive credit for MATH 8. Students may receive credit twice for a maximum of 10 credits. Graded on a CR/N basis. (8 hrs lect./lab. per week)

MATH 9 Fundamentals of Mathematics (5)
[Formerly MATH 98M]
The purpose of this course is to prepare students with the necessary foundation in mathematical skills to enter Career Technical and Liberal Arts programs. It also provides the students who are already in these programs an opportunity to strengthen their backgrounds. Graded on a CR/N basis. (8 hrs lect./lab. per week)

MATH 24 Elementary Algebra I (3)
Prerequisite: MATH 9, OR “C” or higher in MATH 50/53, OR Placement in MATH 24
MATH 24 represents the first course in a two-course sequence covering elementary algebra topics. Topics include operations with real numbers, linear equations and inequalities, graphing, linear systems, and applications. (3 hrs. lect. per week)

MATH 25 Elementary Algebra II (3)
Prerequisite: “C” or higher in MATH 24 or Placement in MATH 25
MATH 25 represents the second course in a two-course sequence covering elementary algebra topics. Topics include properties of exponents, operations on polynomials, factoring, rational expressions and equations, roots and radicals, quadratic equations, and applications. (3 hrs. lect. per week)

MATH 37 MyQuantway I (4)
Prerequisite: Placement in MATH 24
Academic Advisor approval required.
This is the first course in a two semester sequence. MyQuantway provides an alternate and accelerated pathway that will motivate and engage students with an innovative quantitative reasoning focus in which students use mathematics and numerical reasoning to make sense of the world around them. In this non-STEM (science, technology, engineering, mathematics) pathway, students who place into elementary algebra will go through a college-level quantitative reasoning course in one year. (5 hrs. lect. per week)

MATH 50 Technical Mathematics I (3)
Prerequisite: MATH 9, 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)

MATH 53 Technical-Occupational Mathematics (4)
Prerequisite: MATH 9, 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)

MATH 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)

MATH 100 Survey of Mathematics (3) FS
Prerequisite: “C” or higher in MATH 25 OR Placement in MATH 100
Recommended Prep: Placement in ENG 22/60 or ESL 23
A general survey of mathematics, with emphasis on its historical development and the role it plays in modern society. (3 hrs. lect. per week)

MATH 100Q MyQuantway II (4)
Prerequisite: “C” or higher in MATH 37
Academic Advisor approval required.
This is the second course in a two semester sequence. Math 100Q provides an alternate and accelerated pathway that will motivate and engage students with an innovative quantitative reasoning focus in which students use mathematics and numerical reasoning to make sense of the world around them. In this non-STEM (science, technology, engineering, mathematics) pathway, students will learn how language is integrated within cognition, culture, history, and society. (3 hrs. lect. per week)
Students who place below ENG 22 and/or MATH 24 based on ACT Compass placement test scores, are required to enroll in Essential ENG and/or MATH classes in their first semester at Honolulu CC.

Honolulu CC Placement Policy: Students who place below MATH 24 based on ACT Compass placement test scores, are required to enroll in the MATH Essentials class in their first semester at Honolulu CC.

Math Sequence Chart

This chart illustrates the sequence of Math courses offered at Honolulu CC. Enter Math at the level determined by Placement Test, courses taken at Honolulu CC, or courses transferred.

Notes on Courses:
“CR” grade is required in MATH 9 to progress.
“C” grade or higher is required in other MATH to progress
Students who place below ENG 22 and/or MATH 24 based on ACT Compass placement test scores are required to enroll in Essential ENG and/or MATH classes in their first semester at Honolulu CC.

MATH 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, absolute 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)

MATH 111 MATH FOR ELEMENTARY TEACHERS I (3)
Prerequisite: “C” or higher in MATH 25 OR Placement in MATH 100 or higher
Recommended Prep: Placement in ENG 100 or higher
Elementary Education majors only. MATH 111 is the first of a two-course sequence designed to give prospective elementary education majors the depth of understanding necessary to teach mathematics in the elementary classroom. Topics include numbers (natural, rational and real) and operations, sets, patterns, functions and algebra. The emphasis is on communication, connections to other parts of mathematics, problem solving, representations, reasoning and proof. (3 hrs. lect. per week)

MATH 115 INTRODUCTION TO STATISTICS AND PROBABILITY (3)
Prerequisite: “C” or higher in MATH 25 OR Placement in MATH 115
Recommended Prep: Placement in ENG 22/60 or ESL 23
Utilizes basic statistical topics including measures of central tendency and dispersion, classification of variables, sampling techniques, elementary probability, normal and binomial probability distributions, tests of hypothesis, linear regression and correlation in order to solve problems. (3 hrs. lect. per week)

MATH 135 PRECALCULUS: ELEMENTARY FUNCTIONS (3)
Prerequisite: “C” or higher in MATH 103 OR Placement in MATH 135
Investigates linear, quadratic, polynomial, rational, exponential, logarithmic functions, and related topics. This course is the first part of the precalculus sequence. (3 hrs. lect. per week)

MATH 140 PRECALCULUS: TRIGONOMETRY AND ANALYTIC GEOMETRY (3)
Prerequisite: “C” or higher in MATH 135 OR Placement in MATH 140
Studies trigonometric functions, analytic geometry, polar coordinates, vectors, and related topics. This course is the second part of the precalculus sequence. (3 hrs. lect. per week)

MATH 203 CALCULUS FOR BUSINESS AND SOCIAL SCIENCES (3)
Prerequisite: “C” or higher in MATH 135 or Placement in MATH 140
Basic concepts; differentiation and integration; applications to management, finance, economics, and the social sciences. (3 hrs. lect. per week)

MATH 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)

MATH 206 CALCULUS II (4)
Prerequisite: “C” or higher in MATH 205 OR Placement in MATH 206
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)

MATH 231 CALCULUS III (4)
Prerequisite: “C” or higher in MATH 206 OR Placement in MATH 231
Functions of several variables, vectors and 3-dimensional analytic geometry, partial differentiation and applications, parametric equations, polar coordinates. (5 hrs. lect. per week)

Meteorology (MET)

MET 101 INTRODUCTION TO METEOROLOGY (3)
Prerequisite: ENG 19 and/or ENG 21, OR ESL 13 & 14, OR Placement in ENG 22/60 or ESL 23
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)

MET 101L INTRODUCTION TO METEOROLOGY LAB (1)
Prerequisite or Co-requisite: 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)

MICR 130 GENERAL MICROBIOLOGY (3)
An introductory course to the world of microorganisms, 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)
Students who place below ENG 22 and/or MATH 24 based on ACT Compass placement test scores, are required to enroll in Essential ENG and/or MATH classes in their first semester at Honolulu CC.

**Military Science & Leadership (MSL)**

Formerly Military Science (MSCI)

A weekly one-hour leadership laboratory is required for courses numbered 200 and above. This laboratory is optional for the 100-level courses. The laboratory includes practical application of leadership skills, drills and ceremonies, basic soldiering skills, and Army Physical Fitness Training (APFT).

**MSL 100** **INTRODUCTION TO PHYSICAL FITNESS (1)**

Hands-on participatory course following the Army’s physical fitness program. Classes conducted three days per week with Army ROTC cadets. Focus is on aerobic conditioning, muscular strength and endurance. Repeatable 3 times. A-F only. (4.5 hrs. lab. per week)

**MSL 101** **INTRODUCTION TO MILITARY SCIENCE I (2)**

Introduces cadets to personal challenges and competencies critical for effective leadership; personal development of life skills such as goal setting, time management, physical fitness, and stress management related to leadership, officer's role, and the Army profession. Focus on developing basic knowledge and comprehension of Army Leadership Dimensions while understanding the ROTC program, its purpose in the Army, and its advantages for the student. (2 hrs. lect. per week)

**MSL 101L** **INTRODUCTION TO MILITARY SCIENCE I LAB (1)**

Prerequisite or Co-requisite: MSL 101

Practical application in adventure training, one-rope bridges, rifle marksmanship, land navigation, drill and ceremonies, physical training. (2 hrs. lab. per week)

**MSL 102** **INTRODUCTION TO MILITARY SCIENCE II (2)**

Overviews leadership fundamentals such as setting direction, problem-solving, listening, presenting briefs, providing feedback and using effective writing skills. Explores leadership values, attributes, skills, and actions in the context of practical, hands-on, and interactive exercises. Cadre role models and building stronger relationships among cadets through common experience and practical interaction are critical. (2 hrs. lect. per week)

**MSL 102L** **INTRODUCTION TO MILITARY SCIENCE II LAB (1)**

Prerequisite or Co-requisite: MSL 102

Practical application in adventure training, one-rope bridges, rifle marksmanship, land navigation, drill and ceremonies, physical training. (2 hrs. lab. per week)

**MSL 201** **INTERMEDIATE MILITARY SCIENCE I (3)**

Explores creative and innovative tactical leadership strategies and styles through historical case studies and engaging in interactive student exercises. Cadets practice aspects of personal motivation and team building by planning, executing, and assessing team exercises. Focus is on continued development of leadership values and attributes through understanding of rank, uniform, customs and courtesies. (2.5 hrs. lect.; 2 hrs. lab. per week)

**MSL 202** **INTERMEDIATE MILITARY SCIENCE II (3)**

Challenges of leading complex, contemporary operational environments. Dimensions of cross-cultural challenges of leadership in a constantly changing world are highlighted and applied to practical Army leadership tasks and situations. Cadets develop greater self awareness as they practice communication and team building skills, and tactics in real world scenarios. Provides a smooth transition to UHM MSL 301. (2.5 hrs. lect.; 2 hrs. lab. per week)

**MSL 203** **ROTC BASIC CAMP (6)**

**Instructor approval required.**

Four-week summer course conducted at Ft. Knox, Kentucky. Substitutes for ROTC basic course (101, 102, 201, and 202) and fulfills course requirement for admission to ROTC advanced courses. Credit will be given for MSL 203 or basic courses, but not both.

**Music (MUS)**

**MUS 106** **INTRODUCTION TO MUSIC LITERATURE (3)**

Recommended Prep: Placement in ENG 22/60 or ESL 23

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)

**MUS 107** **MUSIC IN WORLD CULTURES (3)**

Prerequisite or Co-requisite: ENG 19 and/or ENG 21, OR ESL 13 & 14, OR Placement in ENG 22/60 or ESL 23; MATH 9

An introduction to the field of ethnomusicology, in which historical, religious, social and political aspects of a society are studied in relationship to its music traditions and culture. In addition to these aspects, the musical elements of each culture are analyzed for the types of instruments, form/structure, context, activities, and music aesthetics. May be taken on a CR/N basis. (3 hrs. lect. per week)

**MUS 121D** **GUITAR I (3)**

Prerequisite: ENG 19 and/or ENG 21, OR “C” or higher in ESL 13 & 14, OR Placement in ENG 22/60 or ESL 23 or higher; MATH 9; or Instructor Approval

Basic principles of classical guitar performance. Relevant problems in guitar literature at the elementary level. May be taken on a CR/N basis. (3 hrs. lect. per week)

**MUS 121Z** **UKULELE I (3)**

Prerequisite or Co-requisite: ENG 19 and/or ENG 21, OR ESL 13 & 14, OR Placement in ENG 22/60 or ESL 23; MATH 9

Comment: Students must supply their own ‘ukulele (soprano, concert, or tenor.)

An introduction to basic principles of playing the ‘ukulele. Concepts and skills introduced in the class include basic musicianship, tuning, chord structures, basic strumming techniques, and principles of accompanying and performing. May be taken on a CR/N basis. (3 hrs. lect. per week)
Students who place below ENG 22 and/or MATH 24 based on ACT Compass placement test scores, are required to enroll in Essential ENG and/or MATH classes in their first semester at Honolulu CC.

MUS 122D Guitar 2 (3)
Prerequisite: “C” or higher in MUS 121D, or Instructor Approval
Basic principles of classical guitar performance. Relevant problems in guitar literature at the intermediate-early advanced level. May be taken on a CR/N basis. (3 hrs. lect. per week)

MUS 122Z Ukulele II (3)
Prerequisite: MUS 121Z or Instructor Approval
Comment: Students must supply their own ’ukulele (soprano, concert, or tenor.)
An intermediate level performance course reinforcing the music concepts/principles of MUS 121Z. Concepts and skills introduced in the class include: basic musicianship, chord identification and progressions, strumming and picking techniques, and the principles of arranging and performing. May be taken on a CR/N basis. (3 hrs. lect. per week)

MUS 253 Basic Experiences of Music (3)
Prerequisite: Placement in ENG 22/60 or ESL 23; 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)

MELE 101 Survey of Music Business (3)
Prerequisite: “C” or higher in ENG 22/60 or ESL 23, OR Placement in ENG 100; “C” or higher in MATH 24, OR Placement in MATH 25
Attention is given to the practical application, theoretical foundations, in-depth analysis of organizations as well as general overview of the industry. Guest lecturers from the music industry may be utilized. May be taken on a CR/N basis. (3 hrs. lect. per week)

MELE 102 Survey of Recording Technology (3)
Prerequisite: “C” or higher in ENG 22/60 or ESL 23, OR Placement in ENG 100; “C” or higher in MATH 24, OR Placement in MATH 25
A study of the major areas of recording technology as related to the music industry. The student receives an overall view of analog and digital technology with attention to its innovations, history and effect on the industry. May be taken on a CR/N basis. (3 hrs. lect. per week)

MELE 201 History of the Recording Industry (3)
Prerequisite: “C” or higher in MELE 101
A study of the foundations of the recorded music business, which includes the development of recording labels, technology-driven changes, and recordings from 1877 to the present. Also discussed are the formation of the major recording labels and the development of the marketing structure whereby recorded music is exposed and sold to consumers. May be taken on a CR/N basis. (3 hrs. lect. per week)

MELE 202 Public Relations in the Music Industry (3)
Prerequisite: “C” or higher in MELE 101
This course deals with press releases, press kits, press parties, artist kits, news for radio and TV, and other areas related to the printed page as public relations support for the artist, company and product. May be taken on a CR/N basis. (3 hrs. lect. per week)

MELE 203 Intellectual Properties (3)
Prerequisite: “C” or higher in MELE 204
This course provided a comprehensive study of intellectual property, the rationale for intellectual property protection, current issues involving intellectual property, international intellectual property issues, and the role of intellectual property in the music and entertainment industry. The types of intellectual property covered include copyrights, trademarks, trade secrets, and patents. Primary emphasis will be on copyright since that is an area of intellectual property most relevant to the entertainment industry. May be taken on a CR/N basis. (3 hrs. lect. per week)

MELE 204 Music Publishing (3)
Prerequisite: “C” or higher in MELE 201 and in MELE 202
A study of music publishing. This course deals with contracts, music licensing, foreign publishing, catalog development, demo sessions and other activities conducted by music publishers. May be taken on a CR/N basis. (3 hrs. lect. per week)

MELE 211 Audio Engineering I (4)
Prerequisite: “C” or higher in MELE 102, and in ENG 100 MELE majors only.
A detailed study of the technical characteristics and performance of each component of the recording studio. Topics include basic studio electronic signal flow, tape machine operations, dynamic processing, basic microphone use, studio acoustics, session procedures and the role of the assistant engineer. Emphasis is placed on developing audio perception skills for recording engineers. May be taken on a CR/N basis. (2 hrs. lect.; 4 hrs. lab. per week)

MELE 212 Digital Audio: Theory and Workstations (3)
Prerequisite: “C” or higher in MELE 211 MELE majors only.
This course is an introductory study into digital audio and the digital audio workstation (DAW). Topics include, but not limited to, digital audio theory, software and hardware components of a DAW, MIDI, ProTools basics for engineers and industry applications. May be taken on a CR/N basis. (3 hrs. lect. per week)

MELE 213 Studio Production (3)
Prerequisite: “C” or higher in MELE 211 MELE majors only.
An in-depth study of the producer and the production of recorded music product.
Students who place below ENG 22 and/or MATH 24 based on ACT Compass placement test scores, are required to enroll in Essential ENG and/or MATH classes in their first semester at Honolulu CC.

Students will create “demo” and “master” projects under the guidance of the instructor. May be taken on a CR/N basis. (3 hrs. lect. per week)

MELE 215 Sound Reinforcement (4)
Prerequisite: “C” or higher in MELE 102, and in ENG 100 MELE majors only. A practicum based study of equipment, systems concepts, design, and acoustical problems involved in sound reinforcement for live performances and touring as related to professional concert situations. Lab hours required. May be taken on a CR/N basis. (2 hrs. lect.; 4 hrs. lab. per week)

MELE 220 Audio Engineering II (4)
Prerequisite: “C” or higher in MELE 211 and in MELE 212 MELE majors only. A continuation of MELE 211, this course is an advanced study of the technical characteristics and performance of each component of the recording studio. Topics include advanced studio electronics and signal flow, computer-based digital recording and editing, analog and digital tape machine operations, automated console operations, condenser microphones, spatial signal processing, and the role of the audio engineer. The development of audio perception skills for recording engineers is emphasized. Lab hours required. (2 hrs. lect.; 4 hrs. lab. per week)

MELE 275 Practicum (4)
Instructor approval required
MELE majors only. Practicum is a capstone course designed to provide students who have successfully completed program course work to intern at selected music and entertainment industry businesses. (300 hours of independent, supervised work to fulfill MELE graduation requirement)

Occupational and Environmental Safety Management (OESM)

OESM 101 Introduction to Occupational Safety and Health (3)
Prerequisite: “C” or higher in ENG 22/60 or ESL 23, OR Placement in ENG 100; “C” or higher in MATH 25, OR Placement in MATH 100/103/115
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)

OESM 102 Safety and Health Standards, Codes and Regulations (3)
Prerequisite: “C” or higher in ENG 22/60 or ESL 23, OR Placement in ENG 100; “C” or higher in MATH 25, OR Placement in MATH 100/103/115
Recommended Prep: 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)

OESM 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 workers. Topics include work station design, man and machine interaction, lighting, load handling, and shift work. (3 hrs. lect. per week)

OESM 104 Occupational-Related Diseases (3)
Prerequisite: “C” or higher in ENG 22/60 or ESL 23, OR Placement in ENG 100; “C” or higher in MATH 25, OR Placement in MATH 100/103/115
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)

OESM 105 Introduction to Industrial Hygiene (3)
Prerequisite: “C” or higher in ENG 22/60 or ESL 23, OR Placement in ENG 100; “C” or higher in MATH 25, OR Placement in MATH 100/103/115
Recommended Prep: 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)

OESM 106 Introduction to Environmental Health (3)
Prerequisite: “C” or higher in ENG 22/60 or ESL 23, OR Placement in ENG 100; “C” or higher in MATH 25, OR Placement in MATH 100/103/115
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)

OESM 145 Occupational Safety and Health in Construction (3)
Prerequisite: “C” or higher in ENG 22/60 or ESL 23, OR Placement in ENG 100; “C” or higher in MATH 25, OR Placement in MATH 100/103/115
Recommended Prep: OESM 101
Comprehensive overview of techniques and procedures to insure effective control of hazards and accidents in construction and allied industries; emphasis on applicable OSHA and HIOSH standards and related codes. (3 hrs. lect. per week)

OESM 147 Electrical Safety (3)
Prerequisite or Co-requisite: 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)
Course Descriptions - OCN

Students who place below ENG 22 and/or MATH 24 based on ACT Compass placement test scores, are required to enroll in Essential ENG and/or MATH classes in their first semester at Honolulu CC.

**OCN 180 Introduction to Aquaculture & Aquarium Management (3)**
This course introduces students to 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)

**Oceanography (OCN)**

**OCN 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)

**OCN 201L Science of the Sea Laboratory (1)**
Prerequisite or Co-requisite: OCN 201
OCN 201L is designed as a lab course to provide experiential education in basic oceanography.

**OCN 205 Physical Hazards Control (3)**
Prerequisite: OCN 101
Recommended Prep: ENG 22/60 or ESL 23, 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; and, special industry hazards unique to the Hawaiian industrial environment. (3 hrs. lect. per week)

**OCN 208 Techniques of Industrial Hygiene (3)**
Prerequisite: OSM 105
An overview of the basic principles of industrial hygiene monitoring instruments and the principles governing their selection and uses with practical applications under professional supervision. Required for OSM majors. (3 hrs. lect. per week)

**OCN 150 Industrial Fire Protection (3)**
Prerequisite: OSM 101 and OSM 102
Basic fire protection-prevention course for industry. Includes planning, managing and training for fire emergencies. Cross-listed as FIRE 150. Credit may be received for FIRE 150 or for OSM 150, but not both. (3 hrs. lect. per week)

**OCM 153 Accident Investigation Techniques (3)**
Prerequisite: OSM 101 and OSM 102
Professional and scientific approach to accident investigation, including accident causation, discovering hazardous conditions and practices, and establishing relevant facts. (3 hrs. lect. per week)

**OCN 160 Labor and Management: Safety Partners (3)**
Prerequisite: OSM 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)

**OCN 193V Cooperative Education (1–4)**
Prerequisite: “C” or higher in ENG 22/60 or ESL 23, OR Placement in ENG 100; “C” in MATH 25 or Placement in MATH 100/103/115
Instructor approval required.
OSM majors only. This course will provide students 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 a maximum of 12 credits. It will not fulfill OSM electives. A minimum of one credit is required for the Associate in Science degree. May be taken on a CR/N basis. (5 hrs. work experience per week per credit)

**OCN 200 Managing Workers Compensation (3)**
Prerequisite: OSM 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)

**OCN 201 Science of the Sea (3)**
Prerequisite or Co-requisite: OCN 201
OCN 201L is designed as a lab course to provide experiential education in basic oceanography.
Students who place below ENG 22 and/or MATH 24 based on ACT Compass placement test scores, are required to enroll in Essential ENG and/or MATH classes in their first semester at Honolulu CC.

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)

(See also ZOOLOGY for Marine Biology)

**Okinawan (OKI)**

**OKI 101 ELEMENTARY OKINAWAN I (4)**
Prerequisite: “C” or higher in ENG 22/60 or ESL 23, OR Placement in ENG 100, or Instructor Approval
Instructor approval required.
This is the first half of the Elementary Okinawan courses, designed to provide students with basic knowledge of Okinawan. Development of listening, speaking, reading, writing, and grammar. May be taken on a CR/N basis. (4 hrs. lect. per week)

**OKI 102 ELEMENTARY OKINAWAN II (4)**
Prerequisite: “C” or higher in OKI 101, or Instructor Approval
Instructor approval required.
This is the second half of the Elementary Okinawan courses, designed to provide students with basic knowledge of Okinawan. Development of listening, speaking, reading, writing, and grammar. May be taken on a CR/N basis. (4 hrs. lect. per week)

**Persian (PERS)**

**PERS 101 ELEMENTARY MODERN PERSIAN I (4)**
Prerequisite: “C” or higher in ENG 22/60 or ESL 23, OR Placement in ENG 100, or Instructor Approval
Instructor approval required.
This is the first half of the Elementary Persian (Farsi) courses, designed to provide students with basic knowledge of Modern Persian. Focus is on developing proficiency in the standard written Persian language, as well as formal spoken Persian. May be taken on a CR/N basis. (4 hrs. lect. per week)

**PERS 102 ELEMENTARY MODERN PERSIAN II (4)**
Prerequisite: “C” or higher in PERS 101, or Instructor Approval
Instructor approval required.
Focuses on developing proficiency in the standard written Persian (Farsi) language, as well as formal spoken Persian. It introduces a wide range of situation-based texts and topics that build vocabulary, grammar, and general communicative competence. May be taken on a CR/N basis. (4 hrs. lect. per week)

**Pharmacology (PHRM)**

**PHRM 203 GENERAL PHARMACOLOGY (3)**
Prerequisite: ZOOL 141
Recommended Prep: 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. May be taken on a CR/N basis. (3 hrs. lect. per week)

**Philosophy (PHIL)**

**PHIL 50 INTRODUCTION TO REASONING (3)**
Recommended Prep: Placement in ENG 22/60 or ESL 23
Learning to avoid black and white thinking with special emphasis on persuasive appeals and scientific conclusions popularized by the mass media. Cross-listed as HUM 50. (3 hrs. lect. per week)

**PHIL 100 INTRODUCTION TO PHILOSOPHY: SURVEY OF PROBLEMS (3)**
Recommended Prep: Placement in ENG 22/60 or ESL 23
Great philosophical issues, theories, and controversies. (3 hrs. lect. per week)

**PHIL 101 INTRODUCTION TO PHILOSOPHY: MORALS AND SOCIETY (3)**
Recommended Prep: Placement in ENG 22/60 or ESL 23
Philosophy 101 is a study of and deliberation on contemporary ethical issues through the perspective of classical and contemporary philosophical theories. (3 hrs. lect. per week)

**PHIL 102 INTRODUCTION TO PHILOSOPHY: ASIAN TRADITION (3)**
Recommended Prep: Placement in ENG 22/60 or ESL 23
Universal themes and problems, with an emphasis on the Asian perspective. (3 hrs. lect. per week)

**PHIL 109 REASONING AND CRITICAL THINKING (3)**
Recommended Prep: ENG 22/60 or ESL 23, OR Placement in ENG 100
The course studies practical reasoning, informal logical argument, and the use and misuse of language. The course emphasizes the development of critical thinking skills by showing students how to examine and assess arguments and persuasive appeals, and make reliable inferences from information when the evidence leaves us unsure of what is true. Understanding and appreciating the application of logical tools of critical thinking to evaluate personal and public policy decisions are the aims of this course. The historical and philosophical context of the value of logical and critical thinking will be integrated fully into the course. May be taken on a CR/N basis. (3 hrs. lect. per week)

**PHIL 110 INTRODUCTION TO LOGIC (3)**
Recommended Prep: ENG 22/60 or ESL 23, OR Placement in ENG 100
Development of basic techniques of analysis and an understanding of the principles and concepts involved in clear thinking. Logical validity, deductive and inductive reasoning, fallacious arguments, symbolic logic, and scientific method as applied to criteria of reasonable evidence will be emphasized. (3 hrs. lect. per week)
Students who place below ENG 22 and/or MATH 24 based on ACT Compass placement test scores, are required to enroll in Essential ENG and/or MATH classes in their first semester at Honolulu CC.

PHIL 120 SCIENCE, TECHNOLOGY, AND VALUES (3)
Prerequisite: ENG 100 or Placement in ENG 201-296
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)

PHIL 204 PHILOSOPHY AND FILM (3)
Prerequisite: ENG 22/60 or ESL 23, OR Placement in ENG 100
This course analyzes a group of movies in light of the philosophical themes they embody. Movies implicitly and explicitly reflect specific philosophical themes, positions and ideas. Students will identify, articulate and critically evaluate these themes, positions and ideas in relation to traditional philosophical arguments and their own developing philosophy. (3 hrs. lect. per week)

PHIL 211 ANCIENT PHILOSOPHY (3)
Prerequisite: “C” or higher in ENG 100
An introduction to the history of Western philosophy from the Presocratics to the Hellenistic Era based on translations of original texts. (3 hrs. lect. per week)

PHIL 213 MODERN PHILOSOPHY (3)
Prerequisite: “C” or higher in ENG 100
An introduction to the history of Western philosophy from the 17th century based on texts of translations of “modern works.” (3 hrs. lect. per week)

PHIL 255 COSMOLOGY: SCIENCE AND THE HUMAN PROSPECT (3)
Prerequisite: ENG 100 OR Placement in ENG 201-296
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)

PHYS 51V TECHNICAL PHYSICS (3-4)
[Formerly PHYS 51]
Prerequisite: MATH 9, 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.

PHYS 53 FUNDAMENTALS OF ELECTRICITY (4)
Prerequisite: ENG 19 and/or ENG 21, OR ESL 13 & 14, OR Placement in ENG 22/60 or ESL 23; 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, and chemical energy of batteries. (3 hrs. lect.; 3 hrs. lab. per week)

PHYS 55 METALLURGY AND PLASTICS (4)
Introductory lecture/lab course covering the basic science of metallurgy and plastics. Topics will vary with student’s major. Topics include shop identification, classification, properties, structures effects and usage of metals and plastics in industry. (3 hrs. lect., 3 hrs. lab. per week)

PHYS 56 BASIC ELECTRICAL THEORY AND LAB (4)
Prerequisite: MATH 24/50/53 OR Placement in MATH 25/55
ATM, DISL, and MARR 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 ATM, ABRP, DISL and MARR majors. (3 hrs. lect.; 3 hrs. lab. per week)

PHYS 100 SURVEY OF PHYSICS (3)
Co-requisite: PHYS 100L
An introductory course in physics for the non-science 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)

PHYS 100L SURVEY OF PHYSICS LABORATORY (1)
Co-requisite: 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)

PHYS 105 PRINCIPLES OF TECHNOLOGY (4)
Prerequisite: MATH 103 or MATH 135 or higher
Presents fundamental theories and problem solving methods in physics as they relate to technology and its applications. Introduces experimental methods in physics and applications of modern technology experimental science. (3 hrs. lect.; 3 hrs. lab. per week)

PHYS 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. Cross-listed as SCI 122. (3 hrs. lect.; 3 hrs. lab. per week)

PHYS 151 COLLEGE PHYSICS I (3)
Prerequisite: MATH 135 OR Placement in MATH 140
Co-requisite: PHYS 151L
PHYS 151 is the first half of a two semester, algebra-based, introductory physics sequence. The topics covered include Newtonian mechanics, work and energy, fluid mechanics, thermodynamics, and wave motion. (3 hrs. lect. per week)
Students who place below ENG 22 and/or MATH 24 based on ACT Compass placement test scores, are required to enroll in Essential ENG and/or MATH classes in their first semester at Honolulu CC.

covered include Newtonian mechanics, work and energy, fluid mechanics, thermodynamics, and wave motion. (3 hrs. lect. per week)

**PHYS 151L College Physics I Laboratory (1)**
Co-requisite: PHYS 151
PHYS 151L is the laboratory course that accompanies PHYS 151 lecture. The scheduled experiments are designed to help reinforce selected topics introduced in the lecture course. These topics include Newtonian mechanics, work and energy, fluid mechanics, thermodynamics, and wave motion. (3 hrs. lab. per week)

**PHYS 152 College Physics II (3)**
Prerequisite: PHYS 151
Co-requisite: PHYS 152L
Recommended Prep: MATH 140
PHYS 152 is the second half of a two-semester, algebra-based, introductory physics sequence. The topics covered include electricity, magnetism, circuits, optics, and select topics in modern physics. (3 hrs. lect. per week)

**PHYS 152L College Physics II Laboratory (1)**
Co-requisite: PHYS 152
PHYS 152L is the laboratory course that accompanies PHYS 152 lecture. The scheduled experiments are designed to help reinforce selected topics introduced in the lecture. These topics include electricity, magnetism, circuits, optics, and selected topics in modern physics. (3 hrs. lab. per week)

**PHYS 170 General Physics I (4)**
Prerequisite or Co-requisite: MATH 206 OR Placement in MATH 231
Mechanics of particles and rigid bodies; wave motion, thermodynamics, and kinetic theory. (4 hrs. lect. per week)

**PHYS 170L General Physics I Lab (1)**
Prerequisite or Co-requisite: PHYS 170
A lab course designed to complement PHYS 170. (3 hrs. lab. per week)

**PHYS 197E, 197F, 197M, 197P**
Click here for link to Course Descriptions

**PHYS 272 General Physics II (3)**
Prerequisite: PHYS 170 and PHYS 170L
Co-requisite: PHYS 272L
Electricity and magnetism; geometrical optics. (3 hrs. lect. per week)

**PHYS 272L General Physics II Lab (1)**
Prerequisite or Co-requisite: PHYS 272
Experimental analysis in electricity and magnetism and optics. (3 hrs. lab. per week)

**PHYS 274 General Physics III (3)**
Prerequisite: PHYS 272 and 272L OR PHYS 152 and 152L
Prerequisite or Co-requisite: MATH 231 OR Placement in MATH 232
Relativity, introduction to quantum mechanics, atomic and nuclear physics, physical optics. (3 hrs. lect. per week)

**Physiology (PHYL)**

**PHYL 141 Human Anatomy and Physiology (3)**
Prerequisite: High School Chemistry
Co-requisite: Introductory Chemistry
Recommended Prep: High School Biology
Anatomy, histology, physiology, biochemistry, genetics of human organ systems presented in integrated anatomy-physiology format. Cross-listed as ZOOL 141. (3 hrs. lect. per week)

**PHYL 141L Human Anatomy and Physiology Lab (1)**
Co-requisite: Introductory Chemistry, PHYL 141
Recommended Prep: Introductory Biology
Anatomy, histology, physiology, biochemistry, genetics of human organ systems presented in integrated anatomy-physiology format. Cross-listed as ZOOL 141L. (3 hrs. lab. per week)

**PHYL 142 Human Anatomy and Physiology II (3)**
Prerequisite: PHYL 141 and PHYL 141L
Co-requisite: PHYL 142L
Co-requisite: Introductory Chemistry
PHYL 142 Human Anatomy and Physiology II is a continuation of PHYL/ZOOL 141. This course covers the Anatomy, Histology, Physiology, Biochemistry, and Genetics of Human organ systems presented in integrated anatomy-physiology format. Cross-listed as ZOOL 142. (3 hrs. lect. per week)

**PHYL 142L Human Anatomy and Physiology II Lab (1)**
Prerequisite: PHYL 141 and PHYL 141L
Co-requisite: PHYL 142
PHYL 142L Human Anatomy and Physiology II Lab is a continuation of PHYL/ZOOL 141. This course covers the Anatomy, Histology, Physiology, Biochemistry, and Genetics of Human organ systems presented in integrated anatomy-physiology format. Cross-listed as ZOOL 142L. (3 hrs. lab. per week)

**Political Science (POLS)**

**POLS 109 Field Experience in Sustainability (3)**
Prerequisite: “C” or higher in ENG 22/60 or ESL 23, OR Placement in ENG 100; “C” or higher in MATH 25 OR Placement in MATH 100/103/115
This course provides students with instruction and hands-on work experience in Sustainability, under the guidance of an Honolulu CC faculty member and a worksite supervisor. Participating students will gain knowledge and skills to promote sustainability, conserve energy, preserve the environment. Through course objectives, mentorship and community-based programs, students will participate in activities designed to simultaneously benefit society, the local economy, and the ecosystem that is central to our health, wellness and happiness. Projects may be part of the University of Hawai‘i’s system-wide sustainability effort conducted under contracts with public and private agencies to perform energy audits, dumpster dives, etc. Students may enroll 2 times for a
Students who place below ENG 22 and/or MATH 24 based on ACT Compass placement test scores, are required to enroll in Essential ENG and/or MATH classes in their first semester at Honolulu CC.

POLS 110 Introduction to Political Science (3)
Prerequisite: Placement in ENG 22/60 or ESL 23
An introduction to political problems, systems, ideologies and processes. (3 hrs. lect. per week)

POLS 120 Introduction to World Politics (3)
Prerequisite: Placement in ENG 22/60 or ESL 23
Contemporary world politics, including theories and analysis; historical background; nations, states and nonstate actors; economic development and globalization in the North and South; war; international law; human rights; and, the environment. (3 hrs. lect. per week)

POLS 130 Introduction to American Politics (3)
Prerequisite: Placement in ENG 22/60 or ESL 23
An introduction to American politics, including the Constitution, federalism, civil rights, the media, political participation, parties, elections, special interests, Congress, the Presidency, the bureaucracy, the courts, civil rights, the economy and foreign policy. May be taken on a CR/N basis. (3 hrs. lect. per week)

POLS 171 Introduction to Political Futures (3)
Recommended Prep: Placement in ENG 22/60 or ESL 23
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)

POLS 180 Introduction to Hawai‘i Politics (3)
Prerequisite: Placement in ENG 100
Recommended Prep: ENG 22/60 or ESL 23
An examination of contemporary Hawai‘i political institutions, processes, issues, and personalities at the State and County levels. Hawai‘i’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)

POLS 190 Media and Politics (3)
Prerequisite: Placement in ENG 22/60 or ESL 23
Influence and effects of media on politics and vice versa. (3 hrs. lect. per week)

POLS 250 Asian Politics Since 1900 (3)
Prerequisite: ENG 22/60 or ESL 23, OR Placement in ENG 100
This course will focus on ten Asian countries with the largest economics and populations, in order to familiarize students with the development of their politics, economics, and society. Cross-listed as ASAN 250. (3 hrs. lect. per week)

PSY 100 Survey of Psychology (3)
Prerequisite: Placement in ENG 22/60 or ESL 23
Survey of the field of psychology including methodology, individual differences, neuroscience, sensation and perception, learning, memory, thinking and intelligence, development, personality, social psychology, and abnormal psychology. (3 hrs. lect. per week)

PSY 180 Psychology of Work (3)
Prerequisite: Placement in ENG 22/60 or ESL 23
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)

PSY 212 Survey of Research Methods (3)
Prerequisite: “C” or higher in PSY 100; “C” or higher in ENG 100
This is a lecture-based course surveying experimental and non-experimental methods and the issues involved in psychological science and research. Topics include the scientific method, conduction literature reviews, and the American Psychological Association writing style. (3 hrs. lect. per week)

PSY 220 Introduction to Behavioral Psychology (3)
Prerequisite: “C” or higher in PSY 100
This course provides an introduction to behavioral psychology, covering principles and theories of learning and behavior. Topics covered include classical conditioning, operant conditioning, behavior modification, and application of findings from laboratory research to various areas of psychology and other social sciences. (3 hrs. lect. per week)

PSY 225 Statistical Techniques (3)
Prerequisite: “C” or higher in MATH 25 and in PSY 100
Frequency distributions; graphic methods; central tendency; variability; correlation; reliability; tests of significance. (3 hrs. lect. per week)

PSY 230 Introduction to Psychobiology (3)
Prerequisite: “C” or higher in PSY 100
Survey of the study of behavior from a natural sciences viewpoint. Evolution, ethological analysis of behavior, behavior genetics, neural mechanisms, drugs and behavior, biological development. (3 hrs. lect. per week)

PSY 240 Developmental Psychology (3)
Prerequisite: “C” or higher in PSY 100
Emotional, mental, physical, social development from infancy to adulthood; interests and abilities at different age levels. (3 hrs. lect. per week)

PSY 250 Social Psychology (3)
Prerequisite: “C” or higher in 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)

PSY 260 Psychology of Personality (3)
Prerequisite: “C” or higher in PSY 100
Scientific study of personality, its meaning, assessment, development, and relation to cultural-social determinants. (3 hrs. lect. per week)
Students who place below ENG 22 and/or MATH 24 based on ACT Compass placement test scores, are required to enroll in Essential ENG and/or MATH classes in their first semester at Honolulu CC.

**PSY 270 INTRODUCTION TO CLINICAL PSYCHOLOGY (3)**
*Prerequisite: "C" or higher in PSY 100*
History, theories, types of psychological problems, methods of assessment, forms of intervention, current developments. (3 hrs. lect. per week)

**Refrigeration and Air Conditioning Technology (RAC)**

**RAC 21 BASIC REFRIGERATION (12)**
*Prerequisite or Co-requisite: ENG 19 and/or ENG 21, OR "C" or higher in ESL 13 & 14, OR Placement in ENG 22/60 or ESL 23; MATH 9, OR Placement in MATH 24/50/53*
*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. Hand tools, fasteners, special refrigeration tools, tube bending, flaring, soldering, compressor overhaul, condensing unit overhaul, refrigeration system construction, operation, test and repair. Safety and Physics content applicable to the RAC area. (24 hrs. lect./lab. per week)

**RAC 32 COMMERCIAL REFRIGERATION (12)**
*Prerequisite: RAC 21*
*RAC majors only.* Commercial systems: application, servicing, heat loads and piping. Absorption principles and special refrigeration devices and application. Advanced maintenance, trouble-shooting and repair of domestic and commercial units. Introduction to the concepts, theories and application of electricity as they apply to refrigeration and air conditioning. (24 hrs. lect./lab. per week)

**RAC 40 AIR CONDITIONING I (12)**
*Prerequisite: RAC 32*
*RAC majors only.* Second portion of electrical fundamentals. Topics include motors, control devices, control systems and trouble-shooting. 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. (24 hrs. lect./lab. per week)

**RAC 50 AIR CONDITIONING II (12)**
*Prerequisite: RAC 40*
*RAC majors only.* Duct sizing, duct devices, system design, system balance, control systems, double-duct systems, hydraulic systems, centrifugal systems, and heat pumps. 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. Safety and Physics content applicable to the RAC area. (24 hrs. lect./lab. per week)

**RAC 93V COOPERATIVE EDUCATION (1–4)**
*Prerequisite: ENG 19 and/or ENG 21, OR "C" or higher in ESL 13 & 14, OR Placement in ENG 22/60 or ESL 23; MATH 9, OR Placement in MATH 24/50/53*
*Instructor approval required.*
*RAC majors only.* This course will provide students 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 a maximum of 12 credits. (5 hrs. work experience per week per credit)

**RELigion (REL)**

**REL 150 INTRODUCTION TO THE WORLD'S MAJOR RELIGIONS (3)**
*Recommended Prep: Placement in ENG 22/60 or ESL 23*
Introduction to the world’s living religions: Hinduism, Buddhism, Shintoism, Confucianism, Taoism, Judaism, Christianity, Islam. (3 hrs. lect. per week)

**REL 151 RELIGION AND THE MEANING OF EXISTENCE (3)**
*Recommended Prep: Placement in ENG 22/60 or ESL 23*
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/N basis. (3 hrs. lect. per week)

**REL 201 UNDERSTANDING THE NEW TESTAMENT (3)**
*Recommended Prep: Placement in ENG 22/60 or ESL 23*
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)

**REL 203 UNDERSTANDING CHINESE RELIGIONS (3)**
*Recommended Prep: Placement in ENG 22/60 or ESL 23*
Taoist, Confucian, Buddhist, Maoist and folk beliefs and practices in social and historical context. (3 hrs. lect. per week)

**REL 204 UNDERSTANDING JAPANESE RELIGIONS (3)**
*Recommended Prep: Placement in ENG 22/60 or ESL 23*
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)

**REL 207 UNDERSTANDING BUDDHISM (3)**
*Recommended Prep: ENG 22/60 or ESL 23, OR Placement in ENG 100*
Survey of major forms and practices. (3 hrs. lect. per week)

**REL 210 UNDERSTANDING CHRISTIANITY (3)**
*Recommended Prep: Placement in ENG 22/60 or ESL 23*
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/N basis. (3 hrs. lect. per week)
Students who place below ENG 22 and/or MATH 24 based on ACT Compass placement test scores, are required to enroll in Essential ENG and/or MATH classes in their first semester at Honolulu CC.

**Science (SCI)**

SCI 101 **Environmental Science (3)**
This course will introduce students to 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)

SCI 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. Cross-listed as PHYS 122. (3 hrs. lect.; 3 hrs. lab. per week)

SCI 193V **Cooperative Education (1–4)**
Instructor approval required. This course will provide students with the opportunity to acquire on-the-job experience related to classroom and laboratory instruction in Science. Students may enroll 4 times for a maximum of 12 credits. (5 hrs. work experience per week per credit)

**Sheet Metal and Plastics Technology (SMP)**

SMP 20 **Hand Tool and Machine Processes (4)**
Prerequisite: ENG 19 and/or ENG 21, OR ESL 13 & 14, OR Placement in ENG 22/60 or ESL 23; MATH 9, OR Placement in MATH 24/50/53
Co-requisite: SMP 21 & 22 & 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)

SMP 21 **Shop Problems (3)**
Prerequisite: ENG 19 and/or ENG 21, OR ESL 13 & 14, OR Placement in ENG 22/60 or ESL 23; MATH 9, OR Placement in MATH 24/50/53
SMP majors only. To provide students with the essential principles and concepts related to sheet metal work to enable them to understand and solve everyday problems encountered in the shop. Students 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)

SMP 22 **Fabrication Processes (Architectural) (4)**
Prerequisite: ENG 19 and/or ENG 21, OR ESL 13 & 14, OR Placement in ENG 22/60 or ESL 23; MATH 9, OR Placement in MATH 24/50/53
Co-requisite: SMP 20 & 21 & 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)

SMP 23 **Introduction to Surface Development (2)**
Prerequisite: ENG 19 and/or ENG 21, OR ESL 13 & 14, OR Placement in ENG 22/60 or ESL 23; MATH 9, OR Placement in MATH 24/50/53
Co-requisite: SMP 20 & 21 & 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)

SMP 24 **Advanced Fabrication Processes (Architectural) (4)**
Prerequisite: SMP 23
Co-requisite: SMP 25 and SMP 26
SMP majors only. Skills in the fabrication of mitered transitional roof jacks, cornices, skylights, louveres, roof ventilators and complex roof seams. Different methods of installation. (2 hrs. lect.; 6 hrs. lab. per week)

SMP 25 **Air Conditioning Fabrication (4)**
Co-requisite: SMP 24 and SMP 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)

SMP 26 **Pattern Development I (2)**
Co-requisite: SMP 24 and SMP 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)

SMP 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)

SMP 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)
Students who place below ENG 22 and/or MATH 24 based on ACT Compass placement test scores, are required to enroll in Essential ENG and/or MATH classes in their first semester at Honolulu CC.

**SMP 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)

**SMP 45 Advanced Fabrication (General) (4)**
Prerequisite: SMP 41
Co-requisite: SMP 44 & 46 & 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)

**SMP 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)

**SMP 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)

**SMP 93V Cooperative Education (1–9)**
Prerequisite: ENG 19 and/or ENG 21, OR ESL 13 & 14, OR Placement in ENG 22/60 or ESL 23; MATH 9, OR Placement in MATH 24/50/53
Instructor approval required.
SMP majors only. This course will provide students 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 a maximum of 12 credits. (5 hrs. work experience per week per credit)

**Small Vessel Fabrication and Repair (MARR)**

**MARR 120 Introduction to Marine Technology (1)**
[Formerly MARR 20]
Prerequisite: ENG 19 and/or ENG 21, OR ESL 13 & 14, OR Placement in ENG 22/60 or ESL 23; MATH 9, OR Placement in MATH 24/50/53
Co-requisite: MARR 122, 129, 130, 142
MARR majors only. 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 (MSDS). Marine nomenclature is also introduced with an emphasis on the terms used when vessels are hauled and secured on land. Classroom instruction and tasks performed will be in accordance with applicable American Boat and Yacht Council (ABYC) Standards and industry best practices. (30 hrs. lect./lab. per term)

**MARR 122 Portable Hand Tools and Machinery (2)**
[Formerly MARR 22]
Prerequisite or Co-requisite: MARR 120
Co-requisite: MARR 124, 129, 130, 142
MARR majors only. 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. Classroom instruction and tasks performed will be in accordance with applicable American Boat and Yacht Council (ABYC) Standards and industry best practices. This course includes forklift training and certification. (60 hrs. lect./lab. per term)

**MARR 124 Introduction to Composite Technology (3)**
[Formerly MARR 24]
Prerequisite or Co-requisite: MARR 122
Co-requisite: MARR 120, 129, 130, 142
MARR majors only. 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. Classroom instruction and tasks performed will be in accordance with applicable American Boat and Yacht Council (ABYC) Standards and industry best practices. Students successfully completing this course will be able to sit for the ABYC “FRP (Fiberglass Reinforced Plastics) Composites for Technicians” certification examination. (90 hrs. lect./lab. per term)
MARR 129 Blueprint Reading for Marine Technicians (2)  
(formerly MARR 29)  
Prerequisite: ENG 19 and/or ENG 21, OR ESL 13 & 14, OR Placement in ENG 22/60 or ESL 23; MATH 9, OR Placement in MATH 24/50/53  
Co-requisite: MARR 120, 122, 124, 130, 142  
MARR majors only. 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. Classroom instruction and tasks performed will be in accordance with applicable American Boat and Yacht Council (ABYC) Standards and industry best practices. (60 hrs. lect./lab. per term)

MARR 130 Woodworking (3)  
(formerly MARR 30)  
Prerequisite or Co-requisite: MARR 122 and 129  
Co-requisite: MARR 120, 124, 142  
MARR majors only. 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. Classroom instruction and tasks performed will be in accordance with applicable American Boat and Yacht Council (ABYC) Standards and industry best practices. (90 hrs. lect./lab. per term)

MARR 133 Marine Finish Systems (4)  
(formerly MARR 33)  
Prerequisite: ENG 19 and/or ENG 21, OR ESL 13 & 14, OR Placement in ENG 22/60 or ESL 23; MATH 9, OR Placement in MATH 24/50/53  
Co-requisite: MARR 154, 152, 153  
MARR majors only. 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. Classroom instruction and tasks performed will be in accordance with applicable American Boat and Yacht Council (ABYC) Standards and industry best practices. (120 hrs. lect./lab. per term)

MARR 142 Introduction to Marine Propulsion (2)  
(formerly MARR 42)  
Prerequisite: ENG 19 and/or ENG 21, OR ESL 13 & 14, OR Placement in ENG 22/60 or ESL 23; MATH 9, OR Placement in MATH 24/50/53  
Co-requisite: MARR 120, 122, 124, 129, 130  
MARR majors only. Provides an introduction to the care, maintenance, and service of gasoline fueled outboard and sterndrive engines. Basic diesel service will be covered. Classroom instruction and tasks performed will be in accordance with applicable American Boat and Yacht Council (ABYC) Standards and industry best practices. (60 hrs. lect./lab. per term)

MARR 152 Introduction to Marine Electrical Systems (3)  
(formerly MARR 52)  
Co-requisite: MARR 154, 133, 153  
MARR majors only. Provides an introduction to marine electrical fundamentals, circuit designs and types, tools of the trade to include basic DVOM usage, safety procedures and concerns. Other concerns unique to the marine field such as wire and cable termination methods, support and chafe protection will be covered in addition to the installation, maintenance, testing, and charging needs of marine batteries. Classroom instruction and tasks performed will be in accordance with applicable American Boat and Yacht Council (ABYC) Standards to ensure compliance with United States Coast Guard (USCG) Regulations as well as industry best practices. Students successfully completing this course will be able to sit for the ABYC “Electrical Fundamentals and Basic Installation” certification examination. (90 hrs. lect./lab. per term)

MARR 153 Introduction to Marine Plumbing Systems (3)  
(formerly MARR 53)  
Co-requisite: MARR 154, 152, 133  
MARR majors only. 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. Classroom instruction and tasks performed will be in accordance with applicable American Boat and Yacht Council (ABYC) Standards and industry best practices. Students who successfully complete this course will be able to sit for the ABYC “Marine Sanitation Devices” and “Piping and Plumbing/Potable Water Systems” certification examinations. (90 hrs. lect./lab. per term)

MARR 154 Sailboat Rigging (2)  
(formerly MARR 54)  
Prerequisite: ENG 19 and/or ENG 21, OR ESL 13 & 14, OR Placement in ENG 22/60 or ESL 23; MATH 9, OR Placement in MATH 24/50/53  
Co-requisite: MARR 152, 133, 153  
MARR majors only. 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 micro-press swage will be practiced. Installation of roller furling systems will be covered. Classroom instruction and tasks performed will be in accordance with applicable American Boat and Yacht Council (ABYC) Standards and industry best practices. (60 hrs. lect./lab. per term)
Students who place below ENG 22 and/or MATH 24 based on ACT Compass placement test scores, are required to enroll in Essential ENG and/or MATH classes in their first semester at Honolulu CC.

**MARR 221 Boat Hauling Procedures (4)**  
*Formerly MARR 21*  
Prerequisite: MARR 120  
Co-requisite: MARR 231, 225  
*MARR majors only.* 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. Classroom instruction and tasks performed will be in accordance with applicable American Boat and Yacht Council (ABYC) Standards and industry best practices. (120 hrs. lect./lab. per term)

**MARR 225 Composite Repair Techniques (3)**  
*Formerly MARR 25*  
Prerequisite: MARR 124  
Co-requisite: MARR 221, 231  
*MARR majors only.* 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. Classroom instruction and tasks performed will be in accordance with applicable American Boat and Yacht Council (ABYC) Standards and industry best practices. (90 hrs. lect./lab. per term)

**MARR 231 Yacht Joinery (3)**  
*Formerly MARR 31*  
Prerequisite: MARR 130  
Co-requisite: MARR 221, 225  
*MARR majors only.* Advanced joinery projects are covered in this course. Projects include laminating 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. Classroom instruction and tasks performed will be in accordance with applicable American Boat and Yacht Council (ABYC) Standards and industry best practices. (90 hrs. lect./lab. per term)

**MARR 240 Marine Blueprint Reading and Lofting (3)**  
*Formerly MARR 40*  
Prerequisite: MARR 129 or instructor approval  
Co-requisite: MARR 241, 243, 250, 251  
*MARR majors only.* 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. Classroom instruction and tasks performed will be in accordance with applicable American Boat and Yacht Council (ABYC) Standards and industry best practices. (90 hrs. lect./lab. per term)

**MARR 241 Mold Station Construction (2)**  
*Formerly MARR 41*  
Prerequisite: MARR 231 or instructor approval  
Prerequisite or Co-requisite: MARR 240 or instructor approval  
Co-requisite: MARR 243, 250, 251  
Provides detailed instruction in creating a mold station and a stem form from the lofting completed in MARR 240. Station and stem bevels and skin deductions are emphasized. The end product of this course will be the project boat created from the completed mold stations and stem forms. Classroom instruction and tasks performed will be in accordance with applicable American Boat and Yacht Council (ABYC) Standards and industry best practices. (60 hrs. lect./lab. per term)

**MARR 243 Composite Tooling (4)**  
*Formerly MARR 43*  
Prerequisite or Co-requisite: MARR 241  
Co-requisite: MARR 240, 250, 251  
This course uses the mold stations and stem form built in MARR 241 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. Classroom instruction and tasks performed will be in accordance with applicable American Boat and Yacht Council (ABYC) Standards and industry best practices. (120 hrs. lect./lab. per term)

**MARR 250 Mold Fabrication (3)**  
*Formerly MARR 50*  
Prerequisite or Co-requisite: MARR 243  
Co-requisite: MARR 240, 241, 251  
*MARR majors only.* This course uses the hull form constructed in earlier courses as a pattern to fabricate a production mold. Tooling gelcoat application is also covered. Classroom instruction and tasks performed will be in accordance with applicable American Boat and Yacht Council (ABYC) Standards and industry best practices. (90 hrs. lect./lab. per term)

**MARR 251 Composite Production (3)**  
*Formerly MARR 51*  
Prerequisite: ENG 19 and/or ENG 21, OR ESL 13 & 14, OR Placement in ENG 22/60 or ESL 23; MATH 9, OR Placement in MATH 24/50/53  
Prerequisite or Co-requisite: MARR 250  
Co-requisite: MARR 240, 241, 243  
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. Classroom instruction and tasks performed will be in accordance with applicable American Boat and Yacht Council (ABYC) Standards and industry best practices. (90 hrs. lect./lab. per term)
Students who place below ENG 22 and/or MATH 24 based on ACT Compass placement test scores, are required to enroll in Essential ENG and/or MATH classes in their first semester at Honolulu CC.

**Social Sciences (SSCI)**

**SSCI 120 HAWAII’S PEOPLE (3)**
A survey of ethnic subcultures in America, with emphasis on Hawaii’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 Hawaii. (3 hrs. lect. per week)

**SSCI 125 PACIFIC ISLAND PEOPLES (3)**
*Recommended Prep: ENG 22/60 or ESL 23, 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. Cross-listed as ANTH 135. (3 hrs. lect. per week)

**SSCI 193V COOPERATIVE EDUCATION (1–4)**
*Instructor approval required.*
This course will provide students 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 a maximum of 12 credits. (5 hrs. work experience per week per credit)

**SSCI 250 GENDER AND SOCIETY (3)**
An introduction to social science 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)**

**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)

**SOSE 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)

**SOSE 51 PRACTICUM SEMINAR (1)**
*Co-requisite: SOSE 91V*
This seminar course provides an opportunity for students to discuss problems experienced in work practicum and to develop counseling, guidance, problem-solving, 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)

**SOSE 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)

**SOSE 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)

**SOSE 145 GROUP COUNSELING (3)**
*Recommended Prep: ENG 22/60 or ESL 23, OR Placement in ENG 100*
Issues and methods in the use of small groups to promote personal growth, therapeutic interaction, and social change. Group formation, maintenance, and termination, group dynamics, and roles/skills appropriate to group leadership and membership. May be taken on a CR/N basis. (3 hrs. lect. per week)

**SOSE 270 SUBSTANCE ABUSE COUNSELING (3)**
*Recommended Prep: SOSE 55; and ENG 22 or ESL 23, or higher*
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)**

**SW 200 THE FIELD OF SOCIAL WORK (3)**
*Prerequisite: ENG 22/60 or ESL 23, 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)**

**SOC 100 SURVEY OF GENERAL SOCIOLOGY (3)**
*Prerequisite: Placement in ENG 22/60 or ESL 23*
Basic social relationships, norms, social structures and processes affecting social change. (3 hrs. lect. per week)

**SOC 214 INTRODUCTION TO RACE AND ETHNIC RELATIONS (3)**
*Prerequisite: “C” or higher in ENG 100*
This course will acquaint students 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)
Students who place below ENG 22 and/or MATH 24 based on ACT Compass placement test scores, are required to enroll in Essential ENG and/or MATH classes in their first semester at Honolulu CC.

**SPAN 202 Intermediate Spanish II (3)**
Prerequisite: SPAN 201
This course is the second half of Intermediate Spanish that further develops listening, speaking, reading, and writing skills. Supplemental online or computer-based instruction is required. (3 hrs. lect. per week)

* Native speakers may not take language courses for credit.

**Speech (SP)**

**SP 50 Working with Clients (3)**
[FORMERLY COM 50]
Prerequisite: ENG 19 and/or ENG 21, OR ESL 13 & 14, OR Placement in ENG 22/60 or ESL 23
Co-requisite: COSM 20 and 21L
COSM 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)

**SP 151 Personal and Public Speech (3)**
Recommended Prep: Placement in ENG 22/60 or ESL 23
This course introduces students to the basic principles of human communication. Perceptual processes, cultural awareness, verbal and nonverbal communication, and effective listening techniques are discussed. Students also receive practice in improving their competency in the areas of informative and persuasive speaking, and in interpersonal and small group communication. (3 hrs. lect. per week)

**SP 181 Introduction to Interpersonal Communication (3)**
Prerequisite: ENG 22/60 or ESL 23, OR Placement in ENG 100
This course introduces students to the basic principles of interpersonal communication. Students will gain an understanding of the various stages of a relationship, how to deal with conflict in a relationship, and various assertive communication strategies. Students will research and write about interpersonal communication in a clear, logical, and inventive manner. (3 hrs. lect. per week)

**SP 251 Principles of Effective Public Speaking (3)**
Recommended Prep: SP 151 or Placement in ENG 100
This course provides students with the opportunity to improve their public speaking skills through extensive practice in speech preparation and delivery techniques. Emphasis is given to audience analysis, gathering supporting materials, and organization, in addition to other speechmaking techniques for a variety of speaking occasions. (3 hrs. lect. per week)

**SP 253 Argumentation and Debate (3)**
Prerequisite: ENG 22/60 or ESL 23, OR Placement in ENG 100
Recommended Prep: 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. May be taken on a CR/N basis. (3 hrs. lect. per week)
Students who place below ENG 22 and/or MATH 24 based on ACT Compass placement test scores, are required to enroll in Essential ENG and/or MATH classes in their first semester at Honolulu CC.

**Student Development (SD)**

**SD 20B CAREER DECISION MAKING (1)**
[FORMERLY SD 85B]
Prerequisite: Placement in ENG 8, 9, 18, 19, or ENG 21
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)

**SD 20C WORK EXPLORATION (1)**
[FORMERLY SD 85C]
Prerequisite: Placement in ENG 8, 9, 18, 19, or ENG 21
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)

**SD 20D JOB PLACEMENT (1)**
[FORMERLY SD 90C]
Prerequisite: Placement in ENG 8, 9, 18, 19, or ENG 21
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)

**SD 21 ORIENTATION TO COLLEGE (1)**
Prerequisite: Placement in ENG 8, 9, 18, 19, or ENG 21
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)

**SD 85 CAREER/LIFE PLANNING (3)**
Prerequisite: Placement in ENG 8, 9, 18, 19, or ENG 21
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)

**SD 95 CONFIRMING YOUR MAJOR (1)**
Prerequisite: Placement in ENG 8, 9, 18, 19, or ENG 21
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)

**Theatre (THEA)**

**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)

**Welding Technology (WELD)**

**WELD 16 WELDING FOR AMT MAJORS (1)**
AMT majors only. 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)

**WELD 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 as IEDW 102. (6 hrs. lab. per week)

**WELD 21 HAND AND SHOP TOOLS (2)**
Co-requisite: WELD 60, 62, 64, 66, 68
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)

**WELD 52 INTRODUCTION TO ARC I (3)**
Prerequisite: ENG 19 and/or ENG 21, OR ESL 13 & 14, OR Placement in ENG 22/60 or ESL 23; MATH 9, OR Placement in MATH 24/50/53
Prerequisite or Co-requisite: BLPR 22
Co-requisite: WELD 54, 56, 58
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)

**WELD 54 INTRODUCTION TO ARC II (2)**
Prerequisite or Co-requisite: WELD 52
Co-requisite: WELD 56, 58
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)
Students who place below ENG 22 and/or MATH 24 based on ACT Compass placement test scores, are required to enroll in Essential ENG and/or MATH classes in their first semester at Honolulu CC.

WELD S6 INTRODUCTION TO ARC III (2)
Prerequisite or Co-requisite: WELD S4
Co-requisite: WELD S2, S8
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)

WELD S8 INTRODUCTION TO ARC IV (2)
Prerequisite or Co-requisite: WELD S6
Co-requisite: WELD S2, S4
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)

WELD 60 ADVANCED ARC WELDING I (2)
Prerequisite: WELD S8; ENG 19 and/or ENG 21; OR ESL 13 & 14; OR Placement in ENG 22/60 or ESL 23; MATH 9; OR Placement in MATH 24/50/53
Co-requisite: WELD 21, 62, 64, 66, 68
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)

WELD 62 ADVANCED ARC WELDING II (3)
Prerequisite or Co-requisite: WELD 60
Co-requisite: WELD 21, 64, 66, 68
WELD majors only. Single and multi-pass groove welding on carbon steel plate using E7018 electrodes. Limited thickness Guided Bend Test will be administered. (20 hrs. lect. per week)

WELD 64 ADVANCED ARC WELDING III (3)
Prerequisite or Co-requisite: WELD 62
Co-requisite: WELD 21, 60, 66, 68
WELD majors only. Single and multi-pass groove welding on carbon plate using E7018 electrodes in the 4G (overhead) position. Limited thickness Guided Bend Test will be administered. (20 hrs. lect. per week)

WELD 66 PLASMA AND AIR CARBON ARC CUTTING (1)
Co-requisite: WELD 21, 60, 62, 64, 68
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)

WELD 68 BLUEPRINT READING FOR WELDERS (3)
Prerequisite: BLPR 22
Co-requisite: WELD 21, 60, 62, 64, 66
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)

WELD 70 OXYACETYLENE WELDING I (2)
Prerequisite: ENG 19 and/or ENG 21; OR ESL 13 & 14; OR Placement in ENG 22/60 or ESL 23; MATH 9; OR Placement in MATH 24/50/53
Co-requisite: WELD 72, 74, 76, 78
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)

WELD 72 OXYACETYLENE WELDING II (2)
Co-requisite: WELD 70, 74, 76, 78
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)

WELD 74 TIG WELDING I (2)
Co-requisite: WELD 70, 72, 76, 78
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)

WELD 76 TIG WELDING II (2)
Co-requisite: WELD 70, 72, 74, 78
WELD majors only. Theory, practice and application of the TIG welding process in the welding of aluminum. (20 hrs. lect./lab. per week)

WELD 78 FABRICATION TECHNIQUES (4)
Co-requisite: WELD 70, 72, 74, 76
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)

WELD 80 GAS METAL AND FLUX CORED ARC WELDING (5)
Prerequisite: ENG 19 and/or ENG 21; OR ESL 13 & 14; OR Placement in ENG 22/60 or ESL 23; MATH 9; OR Placement in MATH 24/50/53
Co-requisite: WELD 82, 84
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)

WELD 82 WELDING INSPECTION AND TESTING PRINCIPLES (1)
Co-requisite: WELD 80, 84
WELD majors only. Introduction to welding codes and qualifications. Visual, destructive, and nondestructive methods will be covered. (2 hrs. lect./lab. per week)

WELD 84 ADVANCED FABRICATION TECHNIQUES (4)
Co-requisite: WELD 80, 82
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)
Students who place below ENG 22 and/or MATH 24 based on ACT Compass placement test scores, are required to enroll in Essential ENG and/or MATH classes in their first semester at Honolulu CC.

WELD 93V **Cooperative Education (1–4)**
*Prerequisite: ENG 19 and/or ENG 21, OR ESL 13 & 14, OR Placement in ENG 22/60 or ESL 23; MATH 9, OR Placement in MATH 24/50/53*
Instructor approval required.
WELD majors only. This course will provide students with the opportunity to acquire on-the-job experience related to classroom and laboratory instruction in Welding. Students may enroll 4 times for a maximum of 12 credits. (5 hrs. work experience per week per credit)

**Women’s Studies (WS)**

WS 151 **Introduction to Women’s Studies (3)**
*Prerequisite: Placement in ENG 22/60 or ESL 23*
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)

**Work Cycle (WORK)**

WORK 194V **Cooperative Education - Federal Work Cycle (1–6)**
*[Formerly WORK 94V]*
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)

**Zoology (ZOOL)**

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. Cross-listed as BIOL 103/103L. (3 hrs. lect.; 3 hrs. lab. per week)

ZOOL 141 **Human Anatomy and Physiology I (3)**
*[Formerly ZOOL 240]*
Recommended Prep: 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) Cross-listed as PHYL 141. (3 hrs. lect. per week)

ZOOL 141L **Human Anatomy and Physiology Lab I (1)**
Prerequisite or Co-requisite: ZOOL 141
Recommended Prep: College Chemistry and one course in college Biology or Zoology
Observation and identification of human tissues under light microscopy, transparency observation of human cells and tissues photographed under electron microscopy, dissection and anatomical identification of human models, animal organ dissection to analogize human anatomical structure, media and software tutorials. Cross-listed as PHYL 141L. (3 hrs. lab. per week)

ZOOL 142 **Human Anatomy and Physiology II (3)**
*[Formerly ZOOL 241]*
Prerequisite: 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, pathology, and homeostatic relationships. (Part II) Cross-listed as PHYL 142. (3 hrs. lect. per week)

ZOOL 142L **Human Anatomy and Physiology Lab II (1)**
Prerequisite or Co-requisite: ZOOL 142
Dissection of human models and animal organs. Observation of laserdisc/computer images of microscopic and gross anatomy and pathology. Experiments involving human neuropsychology, special senses, urinary physiology, and pulmonary function. Cross-listed as PHYL 142L. (3 hr. lab. per week)

ZOOL 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)*