

# Non-Credit Course Listings

Hawai'i CC offers non-credit courses for students needing to improve basic skills in preparation for credit-bearing courses.

## Grading for Non-Credit Courses

Grading for these courses is mandatory Pass/No-Pass (P/NP).

## How to Read the Non-Credit Course Listings

The listing of courses adheres to the following format:

### Alpha Number—Course Title (Credits)

*PreReq:* Courses required before enrolling in this course

Description of course. (This section includes the number of lecture hours class meets per week - 8 weeks for ESOL)

## Intensive English Program (IEP)

The Intensive English Program (IEP) at Hawai'i Community College provides comprehensive support to non-native English learners. The IEP offers 18 hours a week of academic English language instruction in reading, writing, listening, speaking, and grammar.

Students learn the skills they need to study in an American university. Students who complete the IEP can enter credit classes at Hawai'i Community College without an English proficiency score.

For more information, contact the Office of International Programs at [hawccint@hawaii.edu](mailto:hawccint@hawaii.edu) or call (808) 934-2698 or view online at [www.hawaii.hawaii.edu/intensive-english-program](http://www.hawaii.hawaii.edu/intensive-english-program)

## English for Speakers of Other Languages

### ESOL 10A—Writing/Grammar 1 (0)

This is a beginning-level course focusing on the basic structures of academic writing at the sentence and paragraph level. Students will also be introduced to the basics of English grammar using a variety of written and oral exercises and tasks. (6 hrs.)

### ESOL 10B—Writing/Grammar 2 (0)

*PreReq:* ESOL 10A

This is a high beginning-level course focusing on the basic structures of academic writing at the paragraph level. Students also refine the basics of English grammar using a variety of written and oral exercises and tasks. (6 hrs.)

### ESOL 10C—Writing/Grammar 3 (0)

*PreReq:* ESOL 10B

This is a low intermediate-level course focusing on the building of strong foundations in academic writing, from sentence structure to essay writing. Students also practice recognizing and using the grammatical structures needed to function in an academic environment. (6 hrs.)

### ESOL 10D—Writing/Grammar 4 (0)

*PreReq:* ESOL 10C

This is an intermediate-level course designed to introduce and practice the structure of academic writing commonly found in American colleges and universities. Students will also review and practice the grammatical structures they will need to function in an academic environment. (6 hrs.)

### ESOL 20A—Reading/Vocabulary 1 (0)

This is a beginning-level course designed to help students develop basic reading skills and vocabulary. Students practice basic reading comprehension skills and learn strategies to build vocabulary. (6 hrs.)

### ESOL 20B—Reading/Vocabulary 2 (0)

*PreReq:* ESOL 20A

This is a high beginning-level course designed to improve reading comprehension skills and build a basic-level vocabulary. Students are introduced to extensive reading, and reading for pleasure. (6 hrs.)

### ESOL 20C—Reading/Vocabulary 3 (0)

*PreReq:* ESOL 20B

This is a low intermediate-level course designed to enhance academic reading skills. Students practice reading for a variety of reasons, such as reading for specific information, general information, and pleasure. This course also focuses on vocabulary-building and the skills needed to make students independent readers. (6 hrs.)

### ESOL 20D—Reading/Vocabulary 4 (0)

*PreReq:* ESOL 20C

This is an intermediate-level course in which students build the reading skills they need to access academic and other authentic texts. This course continues to focus on vocabulary-building and the skills needed to make students independent readers. (6 hrs.)

### ESOL 30A—Listening/Speaking 1 (0)

This course is designed to develop students' ability to communicate and conduct daily affairs in an English-speaking environment. It focuses on developing fundamental language skills and developing the ability to speak and understand a variety of subjects with some accuracy and fluency. In addition, students meet with conversation partners once a week outside of class time. (6 hrs.)

### ESOL 30B—Listening/Speaking 2 (0)

*PreReq:* ESOL 30A

This is a high beginning-level course designed to develop the ability to communicate and conduct daily affairs in an English-speaking environment. It focuses on integrating fundamental language skills and expanding the ability to speak and understand a variety of subjects with accuracy and fluency. In addition, students meet with conversation partners once a week outside of class time. (6 hrs.)

### ESOL 30C—Listening/Speaking 3 (0)

*PreReq:* ESOL 30B

This is a low intermediate-level course designed to develop the skills necessary to function in an academic environment. The class introduces the basics in note-taking and outlining. Students are asked to give formal and informal speeches. In addition, students meet with conversation partners once a week outside of class. (6 hrs.)

### ESOL 30D—Listening/Speaking 4 (0)

*PreReq:* ESOL 30C

This is an intermediate-level course designed to develop complex listening skills necessary to function in an academic environment. Students are exposed to college and community lectures during which they practice taking notes. They summarize information and give verbal reports. There are a number of group projects included. Students are asked to give formal and informal speeches. In addition, students meet with conversation partners once a week outside of class. (6 hrs.)

## Placement Qualifiers

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In addition to the new progression of English and Math courses, placement qualifiers for the 100-level courses have also been approved. For example, students with a minimum High School GPA of 2.6 qualify to take Eng 100 and Eng 102. Students who took the GED Reasoning Through Language Arts test and received a score of 170 or higher are eligible to take Eng 100 and Eng 102.

Students who had a High School GPA of 2.6 with successful completion of Algebra 2 with a “B” or better place directly into Math 103, Intro to College Algebra. Students who took the Smarter Balanced Assessment Test in High School with a score of 3 or 4 place directly into Math 100 or Math 115.

Students should meet with a Counselor or Faculty Advisor to determine if one of the placement qualifiers applies.

# Credit Course Listings

## Cooperative Vocational Education

### Course Numbers: 93V, 193V, 293V (Variable)

*PreReq: Consent of program faculty*

Programs participating in Cooperative Vocational Education (CVE) are identified by the course numbers ending in 93V. CVE allows students to earn income and college credit while learning on the job. Training stations are selected according to the student's career objectives. Seminars and experiences on the job are planned and supervised by the CVE Coordinator, program instructors, and the employer. The maximum number of credits that can be earned is 24. The maximum number of credits applicable to a degree is determined by each program.

Grading for CVE courses is mandatory Credit/No-Credit (CR/NC).

## Independent Studies/Directed Studies

### Course Numbers: 99, 199, 299 (1-3 variable credits)

Students may earn academic credits through Independent/Directed Studies in any of the areas in which credit courses are offered or to pursue other individual academic interests not included in credit courses. Forms are available online at [www.hawaii.hawaii.edu/admissions/faculty-forms](http://www.hawaii.hawaii.edu/admissions/faculty-forms)

The form must be completed prior to registration. Independent/Directed Studies require:

- 1) sponsorship of the appropriate instructor;
- 2) a description of the work to be undertaken; and
- 3) approval of the appropriate division chairperson.

A description of the work to be undertaken must contain: an outline of the study topic, specification of the work to be done, the type and frequency of faculty-student contact, the amount of credit to be given, and a statement of the evaluative criteria to be used by the faculty member.

For Independent/Directed Studies:

1. A student may register for not more than six (6) semester hours of Independent/Directed Studies per semester with not more than six (6) semester hours granted for any single course.
2. Independent/Directed Studies may be used as electives.
3. Independent/Directed Studies may not be used to meet area/program requirements unless prior permission is given by the advisor and the Vice Chancellor for Academic Affairs. (Policy Haw 5.602)

## Learning Communities

Learning Communities, an innovative approach to educational delivery, emphasize integrated, interdisciplinary learning through a wide range of activities including field trips, study groups, book seminars, simulations, videotaping, and projects which enliven the learning environment. In a Learning Community, courses are clustered around a common theme to provide a focus for the semester's exploration and integration by a team of faculty and students. Each cluster of courses has at least one course which fulfills a core or area requirement. Learning Communities are designed to introduce students to various academic subjects, to support students in making connections amongst those subjects, to encourage students to apply knowledge gained in the classroom to their daily lives, and to support students' involvement in learning.

## Grading for English and Mathematics Developmental Corequisite Courses

Grading for English and Math corequisite courses is Credit/No-Credit (CR/NC). Students who pass the 100-level course will earn credit for the corequisite course regardless of their grade (CR/NC) in the developmental corequisite course.

For the 100-level course, the grading option is A-F and CR/NC. The CR/NC option is only if a student does not intend to use the course (such as Eng 100 or Math 103) to fulfill a graduation or program requirement. Courses used to fulfill graduation and program requirements must be taken for letter grades.

## How to Read the Credit Course Listings

The listing of courses adheres to the following format:

### Alpha Number—Course Title (Credits)

*PreReq: Courses/placement test levels required before enrolling in this course*

*CoReq: Other courses in which student must be concurrently enrolled at the time of enrolling in this course*

*Recommended: Preparation recommended before enrolling in this course*

Description of course. (This section includes the number of lecture and/or lab hours class meets per week for 15 weeks. In some cases classes may meet for less than 15 weeks. If so, this will be indicated on Class Availability.)

## Accounting

### Acc 124—Principles of Accounting I (3)

*PreReq: "C" or better in Eng 21 or "C" or better in ESL 21 or "C" or better in Eng 22 or ("C" or better in ESL 22G and "C" or better in ESL 22W) or placement in Eng 100 or placement in Eng 100E or placement in Eng 102*

Accounting theory and methods used to record and report financial information for services and merchandising businesses. Topics include steps in the accounting cycle and use of basic financial statements. This is first in a series of accounting courses (ACC 124, 125, 126) that include subject matter customary to introductory financial accounting courses numbered at the 200-level. (3 lec hrs.)

### Acc 125—Principles of Accounting II (3)

*PreReq: "C" or better in Acc 124 or "C" or better in Acc 201; and Busn 188*

A continuation of financial accounting methods used to record and report financial information. Topics include a detailed study of balance sheet accounts, preparation of the statement of cash flows, and financial statement analysis. This is second in a series of accounting courses (ACC 124, 125, 126) that include subject matter customary to introductory financial accounting courses numbered at the 200-level. (3 lec hrs.)

### Acc 126—Principles of Accounting III (3)

*PreReq: "C" or better in Acc 125 or "C" or better in Acc 201; and Busn 188*

Introduction to managerial accounting and methods used to report and analyze financial performance to decision makers internal to the firm. Topics include cost accounting, budgeting, standard cost systems, breakeven analysis, and ratio analysis. Third in a series of accounting courses (ACC 124, 125, 126) that includes subject matter customary to introductory managerial accounting courses numbered at the 200-level. (3 lec hrs.)

### Acc 130—Hospitality Accounting I (3)

*PreReq: "C" or better in Eng 21 or "C" or better in ESL 21 or "C" or better in Eng 22 or ("C" or better in ESL 22G and "C" or better in ESL 22W) or placement in Eng 100 or placement in Eng 100E or placement in Eng 102*

Provides a basis for understanding hospitality accounting procedures, the processing of hospitality financial data, and the flow of financial information in the accounting cycle that results in the production of financial statements. Students receiving 69% or better on the final examination will be issued a certificate from the Educational Institute of the American Hotel and Motel Association. (3 lec hrs.)

### Acc 132—Payroll and Hawai'i General Excise Tax (3)

*PreReq: "C" or better in Eng 21 or "C" or better in ESL 21 or "C" or better in Eng 22 or ("C" or better in ESL 22G and "C" or better in ESL 22W) or placement in Eng 100 or placement in Eng 100E or placement in Eng 102*

Introduces the principles, manual and computerized procedures, and terminology for business applications of payroll accounting. Includes preparation and filing of federal and Hawai'i state forms for payroll taxes and the Hawai'i General Excise and Use Tax. (3 lec hrs.)

### Acc 134—Individual Income Tax Preparation (3)

*PreReq: "C" or better in Eng 21 or "C" or better in ESL 21 or "C" or better in Eng 22 or ("C" or better in ESL 22G and "C" or better in ESL 22W) or placement in Eng 100 or placement in Eng 100E or placement in Eng 102*

Introduces the preparation of Federal and State of Hawai'i individual income tax returns with an emphasis on tax law and regulations and their applications to tax returns. This course is intended for an individual preparing basic individual tax returns under the supervision of an accounting professional. (3 lec hrs.)

### Acc 155—Spreadsheets in Accounting (3)

*PreReq: "C" or better in Eng 21 or "C" or better in ESL 21 or placement in Eng 102*

*Recommended: Acc 124 or higher (or concurrent enrollment)*

A hands-on accounting course designed to help students apply the knowledge of the accounting process to a computerized environment using an electronic spreadsheet. (3 lec hrs.)

### Acc 193V—Cooperative Education (1-3)

*PreReq: Consent of program faculty*

Provides practical career-related work experience through a program used nationally in colleges and universities to apply classroom knowledge and to develop job competencies. Full-time or part-time work in private and public sectors of the business, government and industrial communities is utilized for this program. The number of credits earned depends upon the number of hours spent at the job station during the semester. (variable hours)

### Acc 201—Introduction to Financial Accounting (3)

*PreReq: "C" or better in Eng 21 or "C" or better in ESL 21 or "C" or better in Eng 22 or ("C" or better in ESL 22G and "C" or better in ESL 22W) or placement in Eng 100 or placement in Eng 100E or placement in Eng 102*

*Recommended: Busn 188*

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 lec hrs.)

### Acc 202—Introduction to Managerial Accounting (3)

*PreReq: "C" or better 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 lec hrs.)

### Acc 252—Using Quickbooks in Accounting (3)

*PreReq: "C" or better in Acc 124 or "C" or better in Acc 201; and "C" or better in Eng 21 or "C" or better in ESL 21 or "C" or better in Eng 22 or ("C" or better in ESL 22G and "C" or better in ESL 22W) or placement in Eng 100 or placement in Eng 100E or placement in Eng 102*

*Recommended: Students must be computer literate and have experience working on a computer*

Provides a hands-on approach to computerized accounting using QuickBooks. Applies previously acquired accounting skills and knowledge in a computerized environment. Emphasis will be placed on the application of QuickBooks to the accounting cycle. (3 lec hrs.)

**Acc 255—Using Spreadsheets in Accounting II (3)**

*PreReq:* "C" or better in Acc 155

*CoReq:* Acc 202 (or prior completion); and Busn 150 or ICS 101 (or prior completion of either)

*Recommended:* Busn 188

Provides hands-on training in the use of spreadsheet software on computers to solve accounting problems. Applies previously acquired accounting skills and knowledge. Emphasizes financial and managerial accounting. (3 lec hrs.)

**Acc 295—Accounting Capstone (3)**

*PreReq:* "C" or better in Acc 124 and "C" or better in Acc 155 and "C" or better in Acc 252

*CoReq:* Acc 202 (or prior completion)

*Recommended:* Acc 132

Provides accounting majors with the opportunity to integrate the knowledge and skills they have acquired into the work environment as they complete meaningful productive tasks. Additionally, students will complete a capstone project that requires them to utilize their critical thinking skills in synthesizing previous course work and extend and develop their own original ideas. (3 lec hrs.)

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**Administration of Justice**

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**AJ 101—Introduction to Administration of Justice (3)**

*PreReq:* Eng 21 or ESL 21 or placement in Eng 102; and Eng 22 or (ESL 22G and ESL 22W) or placement in Eng 100 or placement in Eng 100E

Focuses on history, philosophy, and language of the criminal justice system. The role of law enforcement, prosecutor, public defender, courts, and corrections is examined. Social aspects of change and how it affects the criminal justice system also explored. (3 lec hrs.)

**AJ 103—Criminal Investigations I (3)**

*PreReq:* Eng 21 or ESL 21 or placement in Eng 102; and Eng 22 or (ESL 22G and ESL 22W) or placement in Eng 100 or placement in Eng 100E

An introductory course in criminal investigations. The nature of investigations, fingerprint classification, the role of the laboratory, and specific offense investigation will be explored. The class will also discuss interview and interrogation and search and seizure techniques. (3 lec hrs.)

**AJ 104—Criminalistics (3)**

*PreReq:* AJ 103

Advanced course work in forensic science (Legal Scientific Investigation), with its contributions to both Crime Scene Investigations and Laboratory Analysis. Specific field and laboratory investigative techniques in violent crimes and other major felonies will be explored. (3 lec hrs.)

**AJ 130—Introduction to Youth Practitioner (3)**

Cross-listed as HSer 130 and Subs 130

*PreReq:* Eng 20 or ESL 20 or placement in Eng 22 or (placement in ESL 22G and placement in ESL 22W)

*Recommended:* AJ 210 or HSer 110

Introduces the core skills needed by youth practitioners. Focuses on basic communication skills, growth and development of adolescents, family and cultures and their roles in development, and youth with special needs. Develops teamwork and basic workforce skills. Also useful for in-service administration of justice, human services and substance abuse counseling professionals seeking to upgrade their knowledge and skills in community-based prevention programs for youth and families. Students who successfully complete AJ 130, or HSer 130, or Subs 130 with a "C" grade or better are eligible to receive 45 hours of prevention studies education from the State of Hawai'i Department of Health - Alcohol and Drug Abuse Division towards Prevention Specialist Certification. (3 lec hrs.)

**AJ 131—Ethics in Public Services (1)**

Cross-listed as HSer 131 and Subs 131

*PreReq:* Eng 21 or ESL 21 or placement in Eng 102; and Eng 22 or (ESL 22G and ESL 22W) or placement in Eng 100 or placement in Eng 100E

Professional codes of ethics, its legal perimeters, and the concepts of values, boundaries, morals, and confidentiality within public services professions of criminal justice, human services, and substance abuse counseling will be explored, analyzed, and discussed. (1 lec hr.)

**AJ 150—The Correctional Process (3)**

Examines the history of punishment and corrections. Discusses laws, records, inmate classification, treatment programs, disciplinary procedures, and supervisory techniques. (3 lec hrs.)

**AJ 170—Introduction to Private Security (3)**

*PreReq:* Eng 21 or ESL 21 or placement in Eng 102; and Eng 22 or (ESL 22G and ESL 22W) or placement in Eng 100 or placement in Eng 100E

Surveys the concepts and issues in the administration of security. Defines public versus private security roles for retail business, industry, and governmental agencies. Provides an overview of the functions of various security activities. (3 lec hrs.)

**AJ 180—Introduction to Homeland Security (3)**

*PreReq:* AJ 101

An examination of the history of terrorism, focusing on the terrorists, who they are, and how they operate. Responses to domestic and international terrorism will be discussed along with analyzing future trends. (3 lec hrs.)

**AJ 181—Intelligence Analysis and Security Management (3)**

*PreReq:* AJ 180

Examines intelligence analysis and its indispensable relationship to the security management of terrorist attacks and other threats. Explores vulnerabilities of our national defense and private sectors, as well as the threats posed to these institutions by terrorists, man-made disasters, and natural disasters. Students will discuss substantive issues regarding intelligence support of the Homeland Security measures implemented by the United States and explore the operations of the intelligence community and first responders involved in security management and public safety at the local, state, and national levels. (3 lec hrs.)

**AJ 182—Transportation and Border Security (3)**

*PreReq: AJ 180*

Provides a foundational overview of modern border and transportation security of the United States. Specific topics include security for seaports, ships, aircraft, trains, trucks, pipelines, buses, etc. Focuses on the technology needed to detect terrorists and their weapons as well as includes discussion on legal, economic, political, and cultural aspects of the problem. (3 lec hrs.)

**AJ 208—Criminology (3)**

Cross-listed as Soc 208

*PreReq: Eng 21 or ESL 21 or Eng 22 or (ESL 22G and ESL 22W) or placement in Eng 100 or placement in Eng 100E or placement in Eng 102*

Explores crime and the body of knowledge regarding it as a social phenomenon. An emphasis is placed on the analysis of crime, crime causation, crime variables, impact on society, and societal reactions to crime. (3 lec hrs.)

**AJ 210—Juvenile Justice (3)**

*PreReq: Eng 21 or ESL 21 or placement in Eng 102; and Eng 22 or (ESL 22G and ESL 22W) or placement in Eng 100 or placement in Eng 100E*

Focuses on principles and procedures of arrest, detention, petition, summons, records, and adjudication of the juvenile offender. It introduces the organization and function of the police juvenile unit, community diversion practices and organization of the Family Court. (3 lec hrs.)

**AJ 220—Constitutional Law (3)**

*PreReq: AJ 101*

The U.S. Constitution is examined as a basis of arrest, search, seizure, interrogation, use of force and civil rights. U.S. Supreme Court cases and Hawai'i Court cases are examined to illustrate the court's interpretive process. (3 lec hrs.)

**AJ 221—Criminal Law (3)**

*PreReq: AJ 101*

Studies history and philosophy of criminal law. Examines United States Constitution, especially the Bill of Rights. Considers nature of law, legal institutions, criminal court procedures, and offenses against persons and property. Includes case briefs. (3 lec hrs.)

**AJ 233—Police Organization and Management (3)**

*PreReq: Eng 21 or ESL 21 or placement in Eng 102; and Eng 22 or (ESL 22G and ESL 22W) or placement in Eng 100 or placement in Eng 100E*

Studies the principles of organization and administration of policing. Overviews of operations and activities of various divisions, bureaus, training and selection procedures, planning, and research are discussed. (3 lec hrs.)

**AJ 234—Police and Community Relations (3)**

*PreReq: Eng 21 or ESL 21 or placement in Eng 102; and Eng 22 or (ESL 22G and ESL 22W) or placement in Eng 100 or placement in Eng 100E*

Acquaints the student with the role of police in government and the critical importance of effective community relations. The dynamics of race relations and other current social problems that directly relate to the law enforcement community are explored. (3 lec hrs.)

**AJ 256—Dynamics of Family Violence and Sexual Assault (3)**

Cross-listed as HSer 256 and WGSS 256

*PreReq: Eng 21 or ESL 21 or placement in Eng 102; and Eng 22 or (ESL 22G and ESL 22W) or placement in Eng 100 or placement in Eng 100E*

Promotes knowledge, skills, sensitivity, and self-care practices for engaging individuals and families affected by interpersonal violence. Examines historical, societal, and legal responses and resources. The content focuses on physical, emotional, and sexual victimization of vulnerable populations like children, elders and LGBTQ+. Addresses dating violence, human trafficking, and intimate partner violence. Examines current research on social, economic, cultural, family, and individual risk factors, perpetrator dynamics, effects of violence on victims and survivors, and effective intervention and prevention strategies. Learners have an opportunity to explore their own values and feelings in relation to difficult subject matter. (3 lec hrs.)

**AJ 280—Current Issues in the Administration of Justice (3)**

*PreReq: AJ 101; and Eng 100 or Eng 100E*

Examination of recent textual materials, government reports, and problems within the criminal justice system and how it affects change within American society and the world. Includes preparation of a formal research essay. (3 lec hrs.)

**AJ 285—Narcotics and Organized Crime (3)**

*PreReq: Eng 21 or ESL 21 or placement in Eng 102*

The identification of narcotics and dangerous drugs, their manufacture and distribution, effects on society, applicable Federal and state laws. Vice and organized crime investigations, applicable laws, effects on individuals and society. (3 lec hrs.)

**AJ 290B—AJ Practicum I (3-6)**

*PreReq: AJ 101 and (AJ 210 or AJ 256)*

*CoReq: AJ 280 (or prior completion)*

With the cooperation of public and nonprofit agencies in the community, advanced students are placed in responsible positions where they earn credits for work performed. For AJ majors only.(variable hours)

**AJ 290C—AJ Practicum II (3-6)**

*PreReq: AJ 290B*

With the cooperation of public and nonprofit agencies in the community, advanced students are placed in responsible positions where they earn credits for work performed. (variable hours)

**AJ 290D—AJ Practicum III (3-6)**

*PreReq: AJ 290C*

With the cooperation of public and nonprofit agencies in the community, advanced students are placed in responsible positions where they earn credits for work performed. (variable hours)

## Agriculture

**Ag 64—Livestock Production I (3)**

Deleted. (see Ag 164)

**Ag 82—Turfgrass Management (3)**

Turfgrass identification, installation, and maintenance for home, park, and golf areas with special emphasis on warm season grasses. A discussion of irrigation and fertilization practices. (6 lec/lab hrs.)

**Ag 122—Soil Technology (3)**

*CoReq: Ag 200 (or prior completion)*

Studies identification, preparation, and fertilization of soils. Discusses soil formation, soil classification, soil reaction, soil and water relationships, soil protection, and irrigation practices. Emphasizes sustainable management systems. (2 lec hrs., 3 lab hrs.)

**Ag 130—Agroforestry Business Management (3)**

*PreReq: Eng 21 or ESL 21 or Eng 22 or (ESL 22G and ESL 22W) or placement in Eng 100 or placement in Eng 100E or placement in Eng 102; and Math 82X or placement in Math 100 or placement in Math 103*

Introduces agroforestry and forestry management practices including decision making, record keeping, cash flow, use of the computer as a management tool, and marketing of agricultural and forestry products. (3 lec hrs.)

**Ag 131—Farm Equipment, Machinery and Power (3)**

Farm equipment and machinery, their selection, management, principles of operation; testing, adjustment and servicing of gasoline engines, engine components. (6 lec/lab hrs.)

**Ag 133—Greenhouse Construction (3)**

Practice in planning the layout of physical facilities common on the farm; practice in the construction and maintenance of small structures. (6 lec/lab hrs.)

**Ag 140—Plant Identification (3)**

Identification of imported and native flora, beneficial and detrimental, and their uses. (6 lec/lab hrs.)

**Ag 141—Integrated Pest Management (3)**

*CoReq: Ag 200 (or prior completion)*

Introduction to the principles involved in the control of plant diseases and pests including bacteria, fungi, nematodes, insects, and weeds. Various methods of controlling pests, including the correct method of selecting and applying pesticides will be covered. A report on the diseases of a crop is required. (6 lec/lab hrs.)

**Ag 146—Landscape Maintenance (3)**

An introduction to landscape maintenance and construction. Skills taught include pruning, fertilizing, planting, pest control, reading of a blueprint, and nursery management. The correct use of specific power tools and equipment used in landscape maintenance and construction will be covered. The identification of plants commonly found in the landscape will also be covered. (2 lec hrs., 3 lab hrs.)

**Ag 154—Tropical Agriculture Production I (6)**

An introduction to the culture of various horticultural enterprises commonly grown in Hawai'i during the Fall of each year. The course includes field preparation considerations, propagation, controlling the environment, pest control, fertilization, and marketing. These enterprises include floral, vegetable, fruits, and foliage crops. A hands-on approach to crop production will be employed and farm management will be stressed. (12 lec/lab hrs.)

**Ag 155—Tropical Agriculture Production II (6)**

An introduction to various horticultural enterprises, commonly cultivated in Hawai'i during the Spring each year. The course includes field preparation considerations, propagation, controlling the environment, pest control, fertilization, and marketing. The enterprises include floral, vegetable, fruits, and foliage crops. The "hands-on" approach to agriculture production is employed and farm record keeping for farm management is stressed. (12 lec/lab hrs.)

**Ag 157—Marketing of Agriculture Products (3)**

*PreReq: Eng 21 or ESL 21 or Eng 22 or (ESL 22G and ESL 22W) or placement in Eng 100 or placement in Eng 100E or placement in Eng 102; and QM 80 or placement in QM 120T*

This course deals with the principles and practices of selecting, processing, handling, and selling of agriculture products. Principles of marketing and the marketing of specific crops are covered. The student will be introduced to the use of the Internet to research markets. A report on the marketing of a crop is required. (3 lec hrs.)

**Ag 164—Integrated Livestock Production and Animal Science (3)**

Formerly Ag 64

Explores agriculture and animal science by bridging the gap between livestock production and the science behind it. The course will introduce students to the biology, behavior, and management of animals like poultry, swine, sheep and goats. Topics may include physiology, anatomy, nutrition, production, reproduction, behavior, care and management to achieve productivity, performance, and welfare. Students will engage in both classroom and field experiences. (3 lec hrs.)

**Ag 175—Agroforestry (3)**

*PreReq: "C" or better in Eng 21 or "C" or better in ESL 21 or "C" or better in Eng 22 or ("C" or better in ESL 22G and "C" or better in ESL 22W) or placement in Eng 100 or placement in Eng 100E or placement in Eng 102; and Math 75X or placement in Math 82X or placement in Math 115*

*CoReq: Ag 175L*

Designed for students in Forest TEAM and related careers. Methods of designing mixed forestry and agricultural systems combining long-term tree crops with understory plants. Topics include choosing the combination of trees and understory plants for growth characteristics, climate zone, substrate, slope and economic goals; planting methods using nitrogen fixing plants and mulch crops to build a healthy soil ecosystem; methods of reducing soil erosion; incorporating native plants and medicinal plants; plant propagation; and use of shade and mulch to reduce weed problems. (3 lec hrs.)

**Ag 175L—Agroforestry Laboratory (1)**

*CoReq: Ag 175*

Designed for students in Forest TEAM and related careers. Laboratory to accompany Ag 175, Agroforestry. Field exercises in methods of designing mixed forestry and agricultural systems combining long-term tree crops with understory plants. Topics include choosing the combination of trees and understory plants for growth characteristics, climate zone, substrate, slope and economic goals; planting methods using nitrogen fixing plants and mulch crops to build a healthy soil ecosystem; methods of reducing soil erosion; incorporating native plants and medicinal plants; plant propagation; and use of shade and mulch to reduce weed problems. (3 lab hrs.)

**Ag 190V—Internship (1-4)**

*PreReq: Ag 175; and Geo 170*

Designed for students in Forest TEAM and related careers. An internship with a government or private agency or commercial operation in the area of tropical forest ecosystem management or agroforestry or related forest or ecosystem occupations. The internship program is intended to give students the opportunity to apply knowledge and skills learned in the Forest TEAM program to real life forest ecosystem management and agroforestry operations with potential employers. May be repeated for credit, up to 6 credits. (variable hours)

**Ag 192—Selected Topics in Forest Ecosystem Management (1)**  
*PreReq: Eng 21 or ESL 21 or placement in Eng 102; and Math 82X or placement in Math 100*

Selected topics allows addition of subjects that meet current needs in Agroforestry and Forest Ecosystem Management. It will be used for elective credit and may be repeated for different subjects. Examples include Forest Fire training, Pesticide training, and Tissue Culture. May be repeated for credit, up to 4 credits. (1 lec hr.)

**Ag 200—Principles of Horticulture (4)**

*PreReq: Eng 21 or ESL 21 or Eng 22 or (ESL 22G and ESL 22W) or placement in Eng 100 or placement in Eng 100E or placement in Eng 102; and QM 80 or placement in Math 82X or placement in QM 120T*

Introduces botany and plant physiology. Discusses plant nutrients, moisture, environmental requirements and plant propagation. Studies culture and production techniques for selected ornamental crops. Plant propagation techniques and the cultivation of selected economic crops will be covered using a student garden and greenhouse. (3 lec hrs., 3 lab hrs.)

**Ag 230—Agriculture Business Management (3)**

*CoReq: Ag 200 (or prior completion)*

Introduces the student to agricultural business management practices including the role of a manager, decision making, record keeping, budgeting, financial statements, ratio analysis, and cash flow analysis. The computer will be used to develop cash flow statements, a resume, and conduct research over the web. The foundation of a business plan will be developed. (6 lec/lab hrs.)

**Ag 245—Tropical Silviculture and Forest Plant Propagation (3)**

*PreReq: Eng 22 or (ESL 22G and ESL 22W) or placement in Eng 100 or placement in Eng 100E; and Math 75X or Math 82X or placement in Math 103 or placement in Math 115; and "C" or better in Ag 175*  
*CoReq: Ag 245L*

Designed for students in Forest TEAM and related careers. Ecology, restoration and management of native and non-native forest ecosystems. Classification, identification, structure, growth and development of trees and understory plants in forest ecosystems. Selection, propagation and cultivation of seeds and propagules. (3 lec hrs.)

**Ag 245L—Tropical Silviculture and Forest Plant Propagation Lab (1)**

*CoReq: Ag 245*

Designed for students in Forest TEAM and related careers. Laboratory in ecology, restoration and management of native and non-native forest ecosystems. Field methods of classification, identification, structure, growth and development of trees and understory plants in forest ecosystems. Field and greenhouse selection, propagation and cultivation of seeds and propagules. (3 lab hrs.)

**Ag 250—Sustainable Crop Production (3)**

*PreReq: Eng 21 or ESL 21 or Eng 22 or (ESL 22G and ESL 22W) or placement in Eng 100 or placement in Eng 100E or placement in Eng 102*

An introduction to production methods for selected crops; compares conventional and alternative methods of production, and analyzes the effects of these practices. Examines economic and social impacts. (3 lec hrs.)

**Ag 250L—Sustainable Crop Production Lab (1)**

*CoReq: Ag 250 (or prior completion)*

A laboratory course which gives the student practical experience in the application and/or the demonstration of agricultural practices which have a minimal negative impact on the farm and the community. (3 lab hrs.)

**Ag 260—Tropical Landscape Horticulture (3)**

*PreReq: Eng 21 or ESL 21 or Eng 22 or (ESL 22G and ESL 22W) or placement in Eng 100 or placement in Eng 100E or placement in Eng 102; and QM 80 or placement in Math 82X or placement in QM 120T*

Introduces the student to the elements of landscape design, planning, and plan implementation. The areas covered include design principles, functional aesthetics, reading and development of landscape plants, and cost estimates. (6 lec/lab hrs.)

**Ag 275—Forest Pest Management (3)**

*PreReq: Eng 22 or (ESL 22G and ESL 22W) or placement in Eng 100 or placement in Eng 100E; and Math 75X or Math 82X or placement in Math 103 or placement in Math 115*

*CoReq: Ag 275L*

*Recommended: Biol 101 or Biol 172 or Bot 101 or Zool 101*

Designed for students in Forest TEAM and related careers. Identification of pests and other threats to forestry operations and native forests. Survey of major diseases, invertebrate pests, vertebrate pests, and invasive plants that threaten tropical forests with an emphasis on Hawai'i. Use of pest management techniques assist in pest control. (3 lec hrs.)

**Ag 275L—Forest Pest Management Lab (1)**

*CoReq: Ag 275*

Designed for students in Forest TEAM and related careers. Lab to identify pests and other threats to agroforestry operations and native forests, including methods of control. Survey of major diseases, invertebrate pests, vertebrate pests, and invasive plants that threaten forests in Hawai'i, and use of pest management techniques assist in pest control. (3 lab hrs.)

**Ag 291—Rural and Urban Remote Sensing (4)**

Cross-listed as EngT 291

*PreReq: EngT 107 and (EngT 270 or Geo 270)*

Places an emphasis on collecting data using remote sensing equipment and software. It will provide students with field experiences in the methods used to assess natural resources and environmental designs. Students will gain experience collecting and interpreting UAS drone data using different sensors. Students will be exposed to a variety of environmental sampling methods that are used in assessing ecosystems. Analysis of data will include site development and sustainable measure guidelines used by various national organizations and programs. (8 lec/lab hrs.)

## Anthropology

**Anth 121—Introduction to Language (3)**

Cross-listed as Ling 121

*PreReq: "C" or better in Eng 22 or ("C" or better in ESL 22G and "C" or better in ESL 22W) or placement in Eng 100 or placement in Eng 100E*

An introduction to the study of language from an anthropological perspective. Broad topics include ethnolinguistics (language and culture), sociolinguistics (language and society), psycholinguistics (language and cognition), and core subfields in linguistics; phonology (sound system), morphology (word structure), and syntax (sentence structure). More emphasis will be given to anthropological methods and cultural concepts in Anth/Ling 121 than in Ling 102, where linguistic approaches are emphasized. (3 lec hrs.)



**Anth 150—Human Adaptations (3)**

*PreReq: Eng 21 or ESL 21 or Eng 22 or (ESL 22G and ESL 22W) or placement in Eng 100 or placement in Eng 100E or placement in Eng 102*

A survey course of physical anthropology. Major topics include primates, human evolution, human adaptations to the present and future world, and global variations in human cultural adaptations. (3 lec hrs.)

**Anth 200—Cultural Anthropology (3)**

*PreReq: Eng 21 or ESL 21 or Eng 22 or (ESL 22G and ESL 22W) or placement in Eng 100 or placement in Eng 100E or placement in Eng 102*

Humans as cultural and social beings. The major concepts and conclusions of cultural anthropology. Biological, social, and linguistic foundations of culture. Research methods. (3 lec hrs.)

**Anth 235—Intermediate Linguistic Analysis: Regional Survey of Austronesian Languages (3)**

Cross-listed as Ling 235

*PreReq: "C" or better in Anth 121 or "C" or better in Ling 102 or "C" or better in Ling 121; and "C" or better in Eng 100 or "C" or better in Eng 100E; and "C" or better in Eng 102*

Building on skills acquired in Linguistics 102 or Ling/Anth 121, this course emphasizes intermediate phonological, morphological, syntactic, and historical-comparative analyses of language; it typologically surveys the Austronesian (AN) language family (including several Polynesian languages), focusing on its geographical distribution, major languages, the branching of its family tree, and its linguistic/cultural diversity. Data from non-AN Southeast Asian and Indo-European languages will be included to introduce key concepts and provide contrast. (3 lec hrs.)

## Architectural, Engineering and CAD Technologies

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**AEC 100—Drafting Conventions and Materials (5)**

Deleted.

**AEC 112—Computer Aided Drafting (CAD) (3)**

Deleted.

**AEC 113—Geomatics and Land Surveying I (2)**

*Recommended: Mechanical drawing and computer keyboarding experience*

Introduction to geomatics and land surveying science, terminology, field practices, equipment, and hardware and software for measuring, locating, and mapping geographic features on the face of the earth. Students will learn how to set up survey field equipment, and take notes for turning and measuring horizontal and vertical angles and distances from a known reference baseline. Survey data will be collected and analyzed for blunders and errors, and mathematically adjusted for input into CAD or other survey office software. (4 lec/lab hrs.)

**AEC 115—Introduction to Architecture (2)**

*PreReq: Placement in Eng 20 or placement in ESL 20*

*Recommended: Placement in Eng 22; keyboarding skills, access to a computer with Internet*

Designed for students interested in the architectural field. Overview of the architectural profession includes professional ethics, industry organizational structure, licensing and its educational requirements, typical framework of architectural firms, compensation, model codes, awarding of contracts and legal requirements for construction projects, project administration, professional organizations, and career opportunities in related fields. Covers the work of significant architects and the importance of the creative thinking process and its application to basic design theory. Exercises emphasize the development of basic skills used in the design of simplified architectural projects. (4 lec/lab hrs.)

**AEC 120—Residential Design and Construction Drawings (6)**

Deleted.

**AEC 128—Sustainable Environmental Design (2)**

Deleted.

**AEC 129—Sustainable Design and Site Prep (2)**

Deleted.

**AEC 150—Introduction to GIS and GPS (4)**

Deleted.

**AEC 230—Residential Contract Drawings and Codes (4)**

Deleted.

**AEC 233—Basic Architectural Studio A (4)**

Deleted.

**AEC 234—3D CAD Imaging (1)**

Deleted.

**AEC 238—Architectural Historic Preservation (2)**

*PreReq: "C" or better in AEC 115 and "C" or better in AEC 120*

*CoReq: AEC 230*

*Recommended: Free-hand drawing proficiency*

Study and documentation of existing buildings, structures, and sites of historic and/or cultural significance, including producing field measurements and drawings, conducting historical research, providing photo documentation, and preparation of archival drawings. Documentation is according to the measurement standards of the History American Buildings Survey (HABS). (4 lec/lab hrs.)

**AEC 240—Commercial Contract Drawings (3)**

*PreReq: "C" or better in AEC 230*

*CoReq: AEC 241 (or prior completion)*

*Recommended: Proficiency in CAD*

A core course that includes the theory and practice involved in producing and organizing working drawings using CAD for multi-family and/or commercial projects. Students are exposed to design, layout, and construction methods used in steel, concrete, masonry, and wood systems. Independent research emphasized. (6 lec/lab hrs.)

**AEC 241—Introduction to Building Services and Building Information Modeling (3)**

*PreReq: "C" or better in AEC 112*

*Recommended: Proficiency in AutoCAD and 3D imaging*

Introduction to building systems and facilities of non-residential buildings in case study format. Topics include thermal control, plumbing, and basic BIM software. (6 lec/lab hrs.)

**AEC 242—Basic Architectural Studio B (4)**

*PreReq: "C" or better in AEC 233*

*Recommended: Proficiency in computer 3D image modeling*

Builds on the knowledge acquired in Basic Architectural Studio A and offers a hands-on exploration of various materials and constructions techniques. Students practice various design processes and systematic approaches to solving architectural and environmental design problems. Students analyze architecture as the creation of spaces generated by human needs and aspirations and develop concepts to explore and achieve innovated solutions responding to these needs. Studio activities involving thinking, reading, writing, model making, and a variety of communication techniques with emphasis on the delineation of 3D spaces using perspective drawing techniques, light notation, and computer modeling. (8 lec/lab hrs.)

**AEC 247—Geomatics and Land Surveying II (2)**

Deleted.

**AEC 249—Introduction to Drafting Career Success (1)**

*PreReq: AEC 115*

An introduction to standard and effective business practices. Students will learn the importance of proposals, project management, communication with clients, and invoicing. Taxes and business licenses will also be explored along with basics of job seeking skills such as resume writing, job interviews, and proper attire. (1 lec hr.)

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**Art**

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**Art 101—Introduction to the Visual Arts (3)**

*PreReq: Eng 21 or ESL 21 or Eng 22 or (ESL 22G and ESL 22W) or placement in Eng 100 or placement in Eng 100E or placement in Eng 102*

Introduction to the Visual Arts, the nature of the visual arts, and their expression in various forms. (3 lec hrs.)

**Art 105B—Introduction to Ceramics - Hand Building (3)**

An introduction to three dimensional concepts in clay through hand building techniques. (6 lec/lab hrs.)

**Art 105C—Introduction to Ceramics - Wheel Throwing (3)**

Three dimensional concepts in clay through wheel throwing techniques. (6 lec/lab hrs.)

**Art 107D—Intro to Digital Photography (3)**

*CoReq: Art 112 (or prior completion)*

*Recommended: Knowledge of the use of computers.*

An introduction to digital photography. Students will learn basic camera techniques and how to convert their images to digital ones. Will provide the student with basic aesthetic principles as well as an extensive range of practical photographic techniques needed for entry into the photographic workplace and/or for artistic expression. It provides experience in traditional and contemporary photographic techniques for Art and Multimedia Design. (6 lec/lab hrs.)

**Art 108—Elementary Studio: Drawing and Painting (3)**

Painting and drawing studio with emphasis on materials and techniques. (6 lec/ lab hrs.)

**Art 111—Introduction to Watercolor Painting (3)**

An introduction to watercolor materials and techniques, including an introduction to Oriental brush painting. (6 lec/lab hrs.)

**Art 112—Introduction to Digital Arts (3)**

*PreReq: Eng 21 or ESL 21 or Eng 22 or (ESL 22G and ESL 22W) or placement in Eng 100 or placement in Eng 100E or placement in Eng 102*

*Recommended: Art 115 and/or basic computer competency*

Studio introduction to digital technology and its applications to the production of visual art. Emphasis will also be placed on developing an aesthetic criteria for evaluation. (6 lec/lab hrs.)

**Art 113—Introduction to Drawing (3)**

*Recommended: Art 101*

Two-dimensional visualization and rendering of forms, spaces and ideas through a variety of approaches and media. (6 lec/lab hrs.)

**Art 114—Introduction to Color (3)**

*Recommended: Art 101*

A studio course in aspects and theories of color and their practical applications. (6 lec/lab hrs.)

**Art 115—Introduction to 2D Design (3)**

*Recommended: Art 101*

Basic two-dimensional designs, concepts, elements and principles of organization. (6 lec/lab hrs.)

**Art 120—Intro to Typography (3)**

*PreReq: "C" or better in Art 112 and "C" or better in Art 115*

Explores letterforms and word compositions in the context of designing with type. Projects and lectures include traditional terms and classifications through contemporary digital typesetting technology. (6 lec/lab hrs.)

**Art 123—Introduction to Painting (3)**

*PreReq: Art 113*

Theory and practice of painting; basic material and technical procedure will be addressed. Oil or acrylic. (6 lec/lab hrs.)

**Art 125—Introduction to Graphic Design (3)**

*CoReq: Art 112 (or prior completion with a "C" or better) or Art 115 (or prior completion with a "C" or better)*

Introduces various ways of organizing visual elements in page design and examines the conceptual meaning of text and image in combination. Structural systems such as grids; modules; and the design principles of emphasis, balance, rhythm, scale and unity are used to organize visual information. Photographs, illustrations and text are integrated using page layout software. (6 lec/lab hrs.)

**Art 126—3D Computer Graphics I (3)**

*PreReq: "C" or better in Art 112*

Provides introductory studio experience in 3D computer graphic concepts with MAYA. Emphasis will also be placed on developing an aesthetic criterion for evaluation. May be repeated for credit, up to 6 credits. (6 lec/lab hrs.)

**Art 135—Papermaking (3)**

Introduces traditional and experimental techniques in papermaking. Students will prepare paper pulp, pulp from raw plant fibers, and press sheet fibers to make editions of paper. The handmade paper will then be used in various art making processes. May be repeated for credit, up to 6 credits. (6 lec/lab hrs.)

**Art 156—Digital Painting (3)**

*PreReq: "C" or better in Art 112*

Introduction to the use of the computer as a painting tool. Studio experience will explore digital painting techniques as used for personal expression, production design, concept art, matte painting, and texture mapping. Emphasis will also be placed on developing aesthetic criteria for evaluation. (6 lec/lab hrs.)

**Art 159—History of Communication Design (3)**

*PreReq: "C" or better in Art 112 and "C" or better in Art 115*

*Recommended: Art 101*

A chronological survey of design and media art history with an emphasis on work from the Victorian Period through the present. International, political, social, and technological issues are addressed in relationship to visual arts and design disciplines. A studio component integrates research with design projects. (6 lec/lab hrs.)

**Art 202—Digital Imaging (3)**

*PreReq: "C" or better in Art 112*

*CoReq: Art 115 (or prior completion)*

A studio course in digital imaging concepts and techniques including image capture, manipulation, and output. Emphasis will also be placed on developing an aesthetic criterion for evaluation. May be repeated for credit, up to 6 credits. (6 lec/lab hrs.)

**Art 207D—Intermediate Digital Photography (3)**

*PreReq: "C" or better in Art 107D*

*Recommended: Knowledge of the use of computers and digital SLR cameras.*

An intermediate level digital photography course designed for students who intend to pursue a career involving digital photography. Covers more in-depth history, theory and aesthetics of digital photography than Art 107D. Emphasizes technical skills as well as covers current trends in advanced, professional level digital photography techniques. (6 lec/lab hrs.)

**Art 211—Intermediate Watercolor Painting (3)**

*PreReq: Art 111*

Continuation and intensive application of the basic techniques introduced in Art 111. Emphasis on the development of personal style in the medium of watercolor. (6 lec/lab hrs.)

**Art 212—Digital Animation (3)**

*PreReq: "C" or better in Art 112*

Studio experience in digital animation concepts. Emphasis will also be placed on developing an aesthetic criterion for evaluation. May be repeated for credit, up to 6 credits. (6 lec/lab hrs.)

**Art 214—Introduction to Life Drawing (3)**

*PreReq: Art 113*

An introductory life drawing course. Anatomical construction, light, space, diagrammatic analysis and thematic content will be studied through the drawing process. May be repeated for credit, up to 6 credits. (6 lec/lab hrs.)

**Art 217—Screen Printing (3)**

Basic screen printing techniques from open screen to photographic methods will be addressed. (6 lec/lab hrs.)

**Art 223—Intermediate Painting (3)**

*PreReq: Art 123*

Survey of late 19th and 20th century studio practice with emphasis on abstraction and non-representational painting. May be repeated for credit, up to 6 credits. (6 lec/lab hrs.)

**Art 225—Graphic Design II (3)**

*PreReq: Art 125*

An intermediate graphic design class which focuses on the refinement of design skills as tools for effective visual communication. It aims to further develop the awareness and investigation of the forms, techniques, and concepts of graphic design. May be repeated for credit, up to 6 credits. (6 lec/lab hrs.)

**Art 226—3D Computer Graphics II (3)**

*PreReq: Art 126*

*CoReq: Art 212 (or prior completion with a "C" or better) and Art 202 (or prior completion with a "C" or better)*

Provides intermediate studio experience in 3D computer graphics concepts with Autodesk MAYA. Builds upon knowledge learned in Art 126 (3D Computer Graphics I) and applies that knowledge to learn more advanced 3D animation techniques. Emphasis placed on developing an aesthetic criterion for evaluation. (6 lec/lab hrs.)

**Art 227—Chinese Brush Painting (3)**

Basic techniques and concept involved in traditional Chinese painting. (6 lec/lab hrs.)

**Art 229—Interface Design I (3)**

*PreReq: Art 112*

Explores the design and programming of audience specific interfaces. Students learn basic programming and screen design skills in combination with basic Web page production technique. May be repeated for credit, up to 6 credits. (6 lec/lab hrs.)

**Art 230—Textile Design (3)**

Design problems for production of printed fabric utilizing silkscreen techniques. (6 lec/lab hrs.)

**Art 243—Intermediate Ceramics - Hand Building (3)**

*PreReq: Art 105B*

The development of sculptural and vessel concepts using hand building techniques. May be repeated for credit, up to 6 credits. (6 lec/lab hrs.)

**Art 244—Intermediate Ceramics - Wheel Throwing (3)**

*PreReq: Art 105C*

The development of vessel and sculptural concepts using wheel throwing techniques. May be repeated for credit, up to 6 credits. (6 lec/lab hrs.)

**Art 246—3D Computer Graphics III (3)**

*PreReq: Art 226 and "C" or better in Art 212*

Provides advanced studio experience in 3D computer graphics concepts with Autodesk MAYA. Builds upon the knowledge learned in Art 226 (3D Computer Graphics II) and applies that knowledge to learn more advanced 3D animation techniques. Emphasis will also be placed on developing an aesthetic criteria for evaluation. (6 lec/lab hrs.)

**Art 248—Digital Post-Production (3)**

*PreReq: "C" or better in CM 120*

A course on the theory and art of video and audio sound design and editing for various output formats. Emphasis will also be placed on developing aesthetic criteria for evaluation purposes. (6 lec/lab hrs.)

**Art 249—Interface Design II (3)**

*PreReq: "C" or better in Art 229*

Builds upon interface design skills learned in Art 229. Students plan, design, and build web sites and audience specific interfaces for the Internet on a more comprehensive level. Students create their own original web assets: e.g. images, drawings, audio, video, animations, and other elements. Technical emphasis placed on learning Dynamic Hyper Text Markup Language (DHTML) and Cascading Style Sheets (CSS). (6 lec/lab hrs.)

**Art 257—Motion Graphic Design (3)**

*PreReq: "C" or better in CM 120 and "C" or better in Art 212*

Course introduces projects that incorporate typography, shape, and image within time-based presentations. Students will creatively employ and integrate the elements of time, sound, motion, typographic effects, layering, and transition to focus on interactive and sequential organization of information. (6 lec/lab hrs.)

**Art 259—Narrative Game Design (3)**

*PreReq: "C" or better in Art 226*

Introduction to the process of designing interactive narrative computer games. Emphasis will be placed on developing an aesthetic criterion for evaluation purposes. (6 lec/lab hrs.)

**Art 269C—Study Abroad - Japan (3)**

*PreReq: Consent of instructor*

This is an on-site study of art/architecture of a designated location(s). This course will visit several animation studios in Japan, including Studio Ghibli - the studio that created "Spirited Away." There will be lectures and discussions which will be used as a tool to analyze, understand, and appreciate the development of this region's unique art. (45 total hrs.)

**Art 293—Internship (3)**

*PreReq: "C" or better in Art 202 and "C" or better in CM 120*

*Recommended: A portfolio of previous student work acceptable by the instructor.*

Provides supervised work experience in multimedia production. This course enables students to apply the knowledge and skills acquired in the classroom to the work environment. May be repeated for credit, up to 6 credits. (6 lec/lab hrs.)

**Art 294—Practicum in Digital Arts (3)**

*PreReq: Art 202 and CM 120*

This practicum provides a supervised work experience environment where advanced students in the DMA program can engage in real production activity. Course enables students to apply the knowledge and skills acquired in the classroom to the work environment. May be repeated for credit, up to 6 credits. (6 lec/lab hrs.)

**Art 295—Design Portfolio (3)**

*PreReq: "C" or better in Art 225 and "C" or better in Art 249*

Guides students through the process of compiling their work into a professional design portfolio. Students will devise a strategy to focus their work to best market their skills through an interactive portfolio, hard copy portfolio materials, and a resume and business card in a unified presentation. Free-lance and contracting issues will be covered to better prepare students for entry into the job market and a review of submitting portfolios for university/college transfer. (6 lec/lab hrs.)

**Art 296—Demo Reel Development (3)**

*PreReq: "C" or better in Art 248*

Guides students through the process of compiling their work onto a demo reel that is representative of student interest, strength, and skill for entry into Digital Video and multimedia fields, professional schools, or baccalaureate institutions. Students will devise a strategy to best edit, package, and market their videos which could include tape, DVD, interactive portfolio, a hard copy portfolio, and resume. (6 lec/lab hrs.)

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**Asian**

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**Asan 120—Japanese Culture I (3)**

An introduction to study of common and distinctive aspects of the Japanese culture. Designed to give students an introduction to Japanese culture and the Japan of today directly related to the modern Japanese people. (3 lec hrs.)

**Asan 121—Chinese Culture (3)**

An introduction to the study of past and present Chinese culture in relation to other East Asian cultures. It is designed to give students an introduction to the Chinese culture. Topics such as: Chinese values and philosophy, social structure, language and literature, art, and migration of Chinese will be covered. (3 lec hrs.)

**Asan 122—Korean Culture (3)**

*PreReq: Eng 21 or ESL 21 or placement in Eng 102; and Eng 22 or (ESL 22G and ESL 22W) or placement in Eng 100 or placement in Eng 100E*

An introduction to the study of common and distinctive aspects of Korean culture in relation to other East Asian cultures designed to give students an overview of contemporary Korean culture and the relationship to its socio-historical, cultural past. (3 lec hrs.)

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**Astronomy**

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**Astr 110—Survey of Astronomy (3)**

*PreReq: Eng 21 or ESL 21 or Eng 22 or (ESL 22G and ESL 22W) or placement in Eng 100 or placement in Eng 100E or placement in Eng 102*

Survey of modern astronomy intended for non-science majors with emphasis on scientific method and development of scientific thought. (3 lec hrs.)

**Astr 281—Astrobiology (3)**

*PreReq: Astr 110*

Astronomical, physical, chemical, geological, and biological perspectives of the origin and continued existence of life on Earth and of the possibility of extraterrestrial life. Exploration of Mars and the Jovian moons. Search for extrasolar planets and extraterrestrial intelligence. (3 lec hrs.)

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**Auto Body Repair and Painting**

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+ Valid driver's license required.

**+ ABRP 100—Collision Repair (12)**

An introduction to areas of oxy-acetylene, Gas Metal Arc Welding, Squeeze Type Resistance Spot welding, and plasma arc cutting. Basic rust repair techniques and metal straightening procedures are also covered, along with metal cleaning and conversion processes. (24 lec/lab hrs.)

- + **ABRP 120—Metal and Plastic Refinishing (12)**  
*PreReq: "C" or better in ABRP 100*  
 An introduction to areas of preparation, refinishing, and color matching of metal and plastic substrates. (24 lec/lab hrs.)
- + **ABRP 200—Panel and Glass Replacement Techniques (12)**  
*PreReq: "C" or better in ABRP 120*  
 An introduction to collision damage appraisal, structural panel replacement, and stationary glass and moveable glass repairs. Also included is basic automotive electrical troubleshooting. (24 lec/lab hrs.)
- + **ABRP 220—Frame Measuring and Alignment Techniques (12)**  
*PreReq: "C" or better in ABRP 200*  
 An introduction to frame and unibody measuring and repair. Also suspension/steering and air conditioning basics and cooling system repairs. (24 lec/lab hrs.)

## Automotive Mechanics Technology

+ Valid driver's license required.

- AMT 101—Automotive Safety and Measurement (2)**  
*PreReq: "C" or better in Eng 20 or "C" or better in ESL 20 or placement in Eng 21 or placement in ESL 21; and "C" or better in Math 75X or "C" or better in QM 80 or placement in QM 120T*  
*CoReq: AMT 120*  
 Covers the policies and procedures of the AMT program, shop safety, nomenclature, proper use of technical reference manuals, identification and proper use of basic hand tools, equipment and measuring tools. Students will research various career opportunities in the automotive industry. (4 lec/lab hrs.)
- AMT 120—Powertrain I (10)**  
*PreReq: "C" or better in Eng 20 or "C" or better in ESL 20 or placement in Eng 21 or placement in ESL 21; and "C" or better in Math 75X or "C" or better in QM 80 or placement in QM 120T*  
*CoReq: AMT 101 (or prior completion)*  
 Covers shop safety, tools, and components of various power generators and fuel systems. Designed to provide students with an understanding of the fundamental operation, construction, and maintenance of various power generators and fuel systems. (20 lec/lab hrs.)
- AMT 150—Powertrain II (12)**  
*PreReq: "C" or better in AMT 101 and "C" or better in AMT 120*  
 Covers shop safety, tools, and components of various drivetrain systems, emission systems, and basic electrical. Designed to provide students with an understanding of the fundamental operation, construction and maintenance of the drivetrain system, emission system, and basic electrical. (24 lec/lab hrs.)
- AMT 200—Undercarriage (12)**  
*PreReq: "C" or better in AMT 150*  
 Covers shop safety, tools, and the undercarriage and related components. Provides students with an understanding of the fundamental operation, construction, and maintenance of the undercarriage and related components. (24 lec/lab hrs.)
- AMT 220—Diagnostics and Repair (12)**  
*PreReq: "C" or better in AMT 200*  
 Covers shop safety, diagnosing and repair techniques, and various on the job types of training. Provides students with an understanding of industry standards with an emphasis on skills to become employable. (24 lec/lab hrs.)

## Biochemistry

- BioC 141—Fundamentals of BioChemistry (3)**  
*PreReq: Math 82X or placement in Math 100; and Eng 21 or ESL 21 or placement in Eng 102*  
 The fundamentals of general, inorganic and bio-organic chemistry and biochemical concepts as they apply to living systems. (3 lec hrs.)

## Biology

- + If a student/participant is under 18 years of age a co-signature of parent or guardian is required on the Assumption of Risk and Release Form.
- Biol 100—Human Biology (3)**  
*PreReq: Eng 21 or ESL 21 or Eng 22 or (ESL 22G and ESL 22W) or placement in Eng 100 or placement in Eng 100E or placement in Eng 102*  
 Basic biology of cells, tissues, and organ systems applied to humans. (3 lec hrs.)
- Biol 100L—Human Biology Laboratory (1)**  
*CoReq: Biol 100 (or prior completion)*  
 Experiments and exercises to accompany Biology 100, Human Biology. Function of human organic systems in relation to health, genetics and environment. (3 lab hrs.)
- Biol 101—Biology and Society (3)**  
*PreReq: Eng 21 or ESL 21 or Eng 22 or (ESL 22G and ESL 22W) or placement in Eng 100 or placement in Eng 100E or placement in Eng 102*  
*Recommended: Concurrent enrollment in Biol 101L*  
 A one semester introductory biology course for non-majors. Covers molecular biology to ecosystems. (3 lec hrs.)
- Biol 101L—Biology and Society Lab (1)**  
*CoReq: Biol 101 (or prior completion)*  
 Experiments and exercises to accompany Biology 101. Survey of the functioning, diversity, evolution and ecology of living things at the molecular, cellular, organ system and ecosystem levels. (3 lab hrs.)
- + **Biol 124—Environment and Ecology (3)**  
*PreReq: Eng 21 or ESL 21 or Eng 22 or (ESL 22G and ESL 22W) or placement in Eng 100 or placement in Eng 100E or placement in Eng 102*  
 An introduction to ecological principles and how they relate to the human situation. The course also explores the causes and solutions of present environmental problems. (3 lec hrs)
- + **Biol 124L—Environment and Ecology Lab (1)**  
*CoReq: Biol 124 (or prior completion)*  
 The laboratory accompanies the Biol 124 lecture. Students apply the scientific method in learning about processes of ecosystem function and of human impact on the natural environment. Field work and field trips are an integral part of this course. (3 lab hrs.)
- + **Biol 156—Natural History of the Hawaiian Islands (3)**  
*PreReq: Eng 21 or ESL 21 or placement in Eng 102; and Eng 22 or (ESL 22G and ESL 22W) or placement in Eng 100 or placement in Eng 100E*  
*CoReq: Biol 156L*  
 The formation of the Hawaiian Islands, establishment and evolution of their native flora and fauna, effects of man. (3 lec hrs.)

**+Biol 156L—Natural History of the Hawaiian Islands Lab (1)**  
*CoReq: Biol 156 (or prior completion)*  
Field trips to accompany Biology 156, Natural History of the Hawaiian Islands: required as part of the lecture course whenever offered with the course. Laboratory exercises will be completed during the field trips. (3 lab hrs.)

**Biol 171—Introduction to Biology I (3)**  
*PreReq: "C" or better in Eng 21 or "C" or better in ESL 21 or "C" or better in Eng 22 or ("C" or better in ESL 22G and "C" or better in ESL 22W) or placement in Eng 100 or placement in Eng 100E or placement in Eng 102*  
*CoReq: Biol 171L*  
*Recommended: High school or college Biology with labs; and concurrent enrollment in Chem 151 or Chem 161*  
Covers principles of cell structure, replication, metabolism, classical and molecular genetics, as well as evolution. Also, biodiversity of prokaryotes, virus, fungi, and plants including plant structure and function. (3 lec hrs.)

**Biol 171L—Introduction to Biology I Lab (1)**  
*PreReq: "C" or better in Eng 21 or "C" or better in ESL 21 or "C" or better in Eng 22 or ("C" or better in ESL 22G and "C" or better in ESL 22W) or placement in Eng 100 or placement in Eng 100E or placement in Eng 102*  
*CoReq: Biol 171*  
*Recommended: High school or college Biology with labs; and concurrent enrollment in Chem 151 or Chem 161*  
Laboratory exercises will cover microscopy and cell structure, replication, and metabolism. Also exercises in classical and molecular genetics, and evolution. (3 lab hrs.)

**Biol 172—Introduction to Biology II (3)**  
*PreReq: Biol 101 or Biol 171*  
*CoReq: Biol 172L*  
Students will explore the biodiversity of animal-like protists, invertebrates, and vertebrates. Animal tissues, sensory reception and integration, endocrine system, support and movement, circulation, immunity, digestion, kidney function, reproduction, and development. Population and community ecology, energy flow, and biogeochemical cycles. (3 lec hrs.)

**Biol 172L—Introduction to Biology II Lab (1)**  
*CoReq: Biol 172*  
*Recommended: High school Biology*  
Exercises will cover structure, function, and natural history of animal-like protists, invertebrates, and vertebrates; structure and function of animal tissues, reproduction, development, and community ecology. (3 lab hrs.)

**Biol 265—Ecology and Evolutionary Biology (3)**  
*PreReq: "C" or better in Biol 171 and "C" or better in Biol 172*  
*Recommended: High school algebra or equivalent*  
General ecological and evolutionary principles. Relationship of plants and animals to their environments. Processes regulating growth and evolution of populations. Community structure and ecosystem function. (3 lec hrs.)

**Biol 265L—Ecology and Evolutionary Biology Lab (1)**  
*PreReq: "C" or better in Biol 171L and "C" or better in Biol 172L*  
*CoReq: Biol 265 (or prior completion)*  
*Recommended: Chem 100 or higher and Chem 100L or higher*  
Laboratory to accompany Biol 265. (3 lab hrs.)

**Biol 275—Cell and Molecular Biology (3)**  
*PreReq: "C" or better in Biol 171 and "C" or better in Biol 171L; and "C" or better in Chem 162 and "C" or better in Chem 162L*  
*CoReq: Biol 275L*  
An integrated cell and molecular biology course for Natural Science majors. Designed to give the student a fundamental understanding of the structure and biochemistry of eukaryotic and prokaryotic cells. Covers the basic principles of molecular biology and includes modern advances in biotechnology, recombinant DNA technology, and bioinformatics. Lab attendance is required. (3 lec hrs.)

**Biol 275L—Cell and Molecular Biology Lab (2)**  
*CoReq: Biol 275 (or prior completion)*  
A laboratory in cell and molecular biology for natural science majors. Through laboratory exercises, students will acquire a fundamental understanding of the biochemistry of the cell. Students will also acquire competence in modern advances in protein chemistry, recombinant DNA technology, and biotechnology. (4 lab hrs.)

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## Blueprint Reading

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**Blpr 22B—Blueprint Reading and Drafting (3)**  
The use of mechanical drawing instruments to make shop drawings which include orthographic projection, dimensioning, and full section. Freehand sketching of shop drawings, isometric and oblique projection sketching. Reading blueprints of simple structures. (3 lec hrs.)

**Blpr 30C—Blueprint Reading for Electricians (3)**  
*PreReq: Blpr 22B and EIMT 20*  
Reading of specifications and blueprints of residential dwellings to extract information that may affect the wiring of the structure. Designing and sketching of wiring diagrams of branch circuits which are in compliance with the National Electrical Code. (3 lec hrs.)

**Blpr 30F—Blueprint Reading for Carpenters (3)**  
A basic course in construction drawing and sketching using orthographic, isometric and oblique projection systems. Reading of blueprints and specifications including the interpretation of symbols, abbreviations, notes, types of lines, scales, and various dimensioning methods. Extracting of information from the various plan views, elevations, sectionals, and detail drawings. (3 lec hrs.)

**Blpr 40—Blueprint Reading and Estimating (3)**  
*PreReq: Blpr 30F*  
Advanced principles of graphic presentation used in residential construction. The course covers the reading and interpretation of blueprints and specifications, preconstruction details, making of material takeoff, and making of working drawings and sketches. (3 lec hrs.)

**Blpr 50—Blueprint Reading for Welding and Machine Trades (4)**  
Basic principles of graphic presentation and terminology used in welding and machine trade drawings. Topics covered are sketching, dimensioning, notes and specifications, weld and welding symbols, structural shapes, and various types of views used in blueprints. (4 lec hrs.)

## Botany

### Bot 101—General Botany (3)

*PreReq:* “C” or better in Eng 21 or “C” or better in ESL 21 or “C” or better in Eng 22 or (“C” or better in ESL 22G and “C” or better in ESL 22W) or placement in Eng 100 or placement in Eng 100E or placement in Eng 102

*CoReq:* Bot 101L

An introductory course in plant biology. Topics include cell structure and function, plant tissues and organs, reproduction and genetics. (3 lec hrs.)

### Bot 101L—General Botany Lab (1)

*PreReq:* “C” or better in Eng 21 or “C” or better in ESL 21 or “C” or better in Eng 22 (“C” or better in ESL 22G and “C” or better in ESL 22W) or placement in Eng 100 or placement in Eng 100E or placement in Eng 102

*CoReq:* Bot 101

A field-based introductory lab course in plant biology. Topics include plant classification, environments and related plant evolution in Hawai‘i, scientific methodology, and plant identification. (3 lab hrs.)

### Bot 105—Ethnobotany (3)

*PreReq:* “C” or better in Eng 21 or “C” or better in ESL 21 or “C” or better in Eng 22 or (“C” or better in ESL 22G and “C” or better in ESL 22W) or placement in Eng 100 or placement in Eng 100E or placement in Eng 102

Plants and their influence upon cultures: with special emphasis on Pacific Islander uses of cultivated and wild plants. (3 lec hrs.)

### Bot 105L—Ethnobotany Lab (1)

*CoReq:* Bot 105

An introductory laboratory course emphasizing hands-on learning about the cultural roles and uses of plants. Lab exercises are conducted in a garden setting as much as possible using examples from the various cultures and plants common in the Pacific Islands. (3 lab hrs.)

### Bot 130—Plants in Hawaiian Environment (3)

*PreReq:* Eng 21 or ESL 21 or Eng 22 or (ESL 22G and ESL 22W) or placement in Eng 100 or placement in Eng 100E or placement in Eng 102

*CoReq:* Bot 130L

An introductory course on the identification, ecology, and usage of common native and introduced trees, shrubs, vines, and flowers. Outdoor activities, including field trips, will be stressed. (3 lec hrs.)

### Bot 130L—Plants in Hawaiian Environment Laboratory (1)

*CoReq:* Bot 130

Laboratory to accompany Bot 130. Identification ecology and usage of common native and introduced plants found in Hawai‘i. The Laboratory will focus on applications of the material learned in the lecture through laboratory exercises and field trips. (3 lab hrs.)

## Business (Bus)

### Bus 120—Principles of Business (3)

*PreReq:* Eng 21 or ESL 21 or placement in Eng 102; and Eng 22 or (ESL 22G and ESL 22W) or placement in Eng 100 or placement in Eng 100E

Surveys the fundamentals of the American business enterprise and examines the foundations and responsibilities of accounting, management, finance, marketing, and the business environment. (3 lec hrs.)

## Business (Busn)

### Busn 121—Introduction to Word Processing (3)

*Recommended:* Eng 21 or ESL 21 or Eng 22 or (ESL 22G and ESL 22W) or placement in Eng 100 or placement in Eng 100E or placement in Eng 102

Covers proper keyboarding techniques; word processing concepts (Microsoft Word); and document formatting of letters, memos, tables, reports, and e-mail. Basic file management and operating system functions are included. Keyboarding speed and accuracy are emphasized. (3 lec hrs.)

### Busn 123—Word Processing for Business (3)

*Recommended:* Ability to type 35 gwm; and Eng 21 or ESL 21 or Eng 22 or (ESL 22G and ESL 22W) or placement in Eng 100 or placement in Eng 100E or placement in Eng 102

Uses advanced features from a word processing program to create business documents emphasizing production and proofreading. Integrates knowledge of the Internet and the computer. Includes timed computer keyboarding skills for creating and editing business documents and sending electronic attachments. (3 lec hrs.)

### Busn 150—Intro to Business Computing (3)

*PreReq:* “C” or better in Eng 20 or “C” or better in Eng 20W or “C” or better in ESL 20 or placement in Eng 21 or placement in ESL 21 or placement in Eng 22 or (placement in ESL 22G and placement in ESL 22W)

*Recommended:* Busn 123 or keyboarding ability

An introduction to computers and the components of a business computer system, including hands-on exposure to elementary applications, and learning how computer technology can be applied to satisfy business needs. (3 lec hrs.)

### Busn 158—Social Media and Cloud-Based Collaboration for Business (3)

*PreReq:* “C” or better in Eng 22 or (“C” or better in ESL 22G and “C” or better in ESL 22W) or placement in Eng 100 or placement in Eng 100E

*Recommended:* Basic computer, Internet, and keyboarding skills

Introduces students to social media and collaboration tools as it relates to business. Students learn how to effectively create, maintain, and update blogs, social media sites (i.e. Facebook, Google+, LinkedIn, Pinterest, Twitter, and YouTube), and internal/external collaboration and communication tools. Organizational management of cloud storage will be covered. (3 lec hrs.)

### Busn 159—Creating and Managing the Virtual Office (3)

*PreReq:* “C” or better in Eng 21 or “C” or better in ESL 21 or placement in Eng 102; and “C” or better in Eng 22 or (“C” or better in ESL 22G and “C” or better in ESL 22W) or placement in Eng 100 or placement in Eng 100E; and “C” or better in Busn 123 and “C” or better in Busn 150 and “C” or better in Busn 164

Explores concepts and issues involved in establishing a virtual assistant business. Students will use integrated software applications to complete assignments, create projects, conduct research, and prepare a comprehensive business and marketing plan. (3 lec hrs.)

**Busn 164—Career Success (3)**

*PreReq: Eng 21 or ESL 21 or placement in Eng 102; and Eng 22 or (ESL 22G and ESL 22W) or placement in Eng 100 or placement in Eng 100E*

*Recommended: Computer experience using a word processing program*

Presents concepts and theories relating to workplace behavior; managing one's attitude and relationships for workplace effectiveness. (3 lec hrs.)

**Busn 170—Records and Information Management (3)**

*PreReq: Eng 20 or ESL 20 or placement in Eng 21 or placement in ESL 21 or placement in Eng 22 or (placement in ESL 22G and placement in ESL 22W)*

Studies principles and procedures for organizing and operating Records and Information Management (RIM) programs. Topics include: selection of filing systems, equipment, and supplies; procedures for storage, retrieval, transfer, retention, and disposal of records; records inventory and analysis; records protection and disposition; study and application of ARMA (Association of Records Managers and Administrators) rules for alphabetic, alphanumeric, geographic, numeric, and subject methods. Help a business or organization meet its fiscal, legal, governmental, requirements by managing its information systems. (3 lec hrs.)

**Busn 178—Business Communications (3)**

*PreReq: "C" or better in Eng 22 or ("C" or better in ESL 22G and "C" or better in ESL 22W) or placement in Eng 100 or placement in Eng 100E*

*Recommended: Busn 123 or computer experience using a word processing program*

Covers basic skills and techniques for effective business writing. Designed to develop and refine writing skills with an emphasis on basic writing, proofreading, and editing techniques. (3 lec hrs.)

**Busn 182—Machine Transcription (3)**

*PreReq: Eng 20 or ESL 20 or placement in Eng 21 or placement in ESL 21 or placement in Eng 22 or (placement in ESL 22G and placement in ESL 22W)*

*Recommended: Ability to keyboard 35 wpm and knowledge of word processing*

An introductory course in machine transcription designed to improve communication skills—reading, listening, speaking, word usage, spelling, punctuation, proofreading, understanding sentence structure, to produce business communication from familiar and unfamiliar dictation. (3 lec hrs.)

**Busn 188—Business Calculations (3)**

*Recommended: "C" or better in Eng 20 or "C" or better in ESL 20 or placement in Eng 21 or placement in ESL 21; and "C" or better in Math 75X or higher*

Introduces various quantitative computational procedures used in accounting and finance such as present and future value concepts, payroll, inventory, and international currency exchange rates. Utilization of the electronic 10-key pad as a tool for calculating will be stressed. (3 lec hrs.)

**Busn 193V—Cooperative Education (1-5)**

*PreReq: Consent of program faculty*

Provides practical career-related work experience through a program used nationally in colleges and universities to apply classroom knowledge and to develop job competencies. Full-time or part-time work in private and public sectors of the business, government and industrial communities is utilized for this program. The number of credits earned depends upon the number of hours spent at the job station during the semester. (variable hours)

**Busn 292—Integrated Office Procedures (3)**

*PreReq: Acc 155; and Busn 123 and Busn 164*

*CoReq: Busn 170 (or prior completion)*

Emphasis is on office procedures for the administrative professional. Includes advanced word processing, spreadsheet, database, integration of applications, and critical thinking applications. Designed to bring together within a portfolio all elements of learning from the Business Technology program. (3 lec hrs.)

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## Business Law

**BLaw 200—Legal Environment of Business (3)**

*PreReq: "C" or better in Eng 21 or "C" or better in ESL 21 or "C" or better in Eng 22 or ("C" or better in ESL 22G and "C" or better in ESL 22W) or placement in Eng 100 or placement in Eng 100E or placement in Eng 102*

Introduces the nature and development of law in the United States with emphasis on how it applies to business. A study of business documents, how business entities are created and operated, the role of government regulation, and ethical implications are also covered. (3 lec hrs.)

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## Carpentry

**Carp 150—Basic Carpentry I (6)**

*PreReq: "C" or better in Eng 20 or "C" or better in ESL 20 or placement in Eng 21 or placement in ESL 21; and "C" or better in QM 80 or placement in QM 120T*

*CoReq: Carp 151*

Students will learn and practice shop safety and the safe use, care, and maintenance of hand tools. Identification of basic construction materials and fasteners, adherence to good work ethics, quality workmanship, and customer satisfaction is also emphasized. (12 lec/lab hrs.)

**Carp 151—Basic Carpentry II (6)**

*PreReq: "C" or better in Eng 20 or "C" or better in ESL 20 or placement in Eng 21 or placement in ESL 21; and "C" or better in QM 80 or placement in QM 120T*

*CoReq: Carp 150 (or prior completion)*

Students will develop basic carpentry skills required by industry. Covers the use, safety and maintenance of hand and power tools, identification and application of materials, joint construction, and layout techniques. Lab work involves practice and construction of basic woodworking projects with emphasis placed on safety, good work ethics, conservation, accuracy, and overall craft professionalism. (12 lec/lab hrs.)

**Carp 155—Concrete Form Construction (12)**

*PreReq: "C" or better in Carp 150 and "C" or better in Carp 151*

Designed to familiarize students working with concrete. It covers the different types of concrete forms, laying out, materials and accessories, properties in concrete, leveling tools/instrument and special techniques in heavy concrete construction. (24 lec/lab hrs.)



**Carp 257—Framing and Exterior Finish (12)**

*PreReq: "C" or better in Carp 155*

Designed for house construction. It involves footings and foundations, platform framing, wall and ceiling framing, roof framing and the different designs, roof coverings, and exterior sidings. Students will participate in actual construction. (24 lec/lab hrs.)

**Carp 260—Finishing (12)**

*PreReq: "C" or better in Carp 257*

Covers application of wall and ceiling panels; hanging doors and windows; construction and installation of cabinets and closets; application of moldings and trims; bathroom materials and finishing hardware, window and door frame construction, and installation and application of siding and trims. (24 lec/lab hrs.)

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## Chemistry

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**Chem 100—Chemistry and Society (3)**

*PreReq: Eng 21 or ESL 21 or Eng 22 or (ESL 22G and ESL 22W) or placement in Eng 100 or placement in Eng 100E or placement in Eng 102*

Basic concepts of chemistry utilizing mathematics only where necessary, designed for the non-science major. (3 lec hrs.)

**Chem 100L—Chemistry and Society Lab (1)**

*CoReq: Chem 100 (or prior completion)*

Laboratory to accompany Chem 100; Basic concepts of chemistry utilizing mathematics only where necessary, designed for the non-science major. (3 lab hrs.)

**Chem 151—Elementary Survey of Chemistry (3)**

*PreReq: Eng 21 or ESL 21 or Eng 22 or (ESL 22G and ESL 22W) or placement in Eng 100 or placement in Eng 100E or placement in Eng 102*

*CoReq: Chem 151L*

Provides the beginning student with a background in the fundamentals of chemistry. (3 lec hrs.)

**Chem 151L—Elementary Survey of Chemistry Lab (1)**

*CoReq: Chem 151 (or prior completion)*

Laboratory of Chem 151: Provides the beginning student with a background in the fundamentals of chemistry laboratory. (3 lab hrs.)

**Chem 161—General Chemistry I (3)**

*PreReq: "C" or better in Math 103 or placement in Math 135*

*CoReq: Chem 161L*

Basic principles of inorganic chemistry with an emphasis on problem solving. First course of a two-course sequence designed to meet the one-year general chemistry requirement for Pre-med, Science, and Engineering majors. Topics include chemical calculations, electronic structure, chemical bonding, states of matter, and solutions. (3 lec hrs.)

**Chem 161L—General Chemistry I Lab (1)**

*CoReq: Chem 161*

Laboratory to accompany Chem 161. Experiments illustrate fundamental principles of Chemistry. (3 lab hrs.)

**Chem 162—General Chemistry II (3)**

*PreReq: Chem 161*

*CoReq: Chem 162L*

Second course of a two-course sequence designed to meet the one-year general chemistry requirement for Pre-med, Science, and Engineering majors. Topics include thermochemistry, kinetics, acid-base equilibrium, solubility equilibrium, and electrochemistry. Emphasis on problem solving. (3 lec hrs.)

**Chem 162L—General Chemistry II Lab (1)**

*PreReq: Chem 161 and Chem 161L*

*CoReq: Chem 162*

Laboratory to accompany Chem 162. Experiments illustrate fundamental principles of Chemistry. (3 lab hrs.)

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## Computing, Electronics, and Networking Technology

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**CENT 140—Network Fundamentals (3)**

Cross-listed as Etro 140

*Recommended: Basic knowledge and use of PCs*

Introduces the architecture, structure, functions, components, and models of the Internet and other computer networks. Uses the OSI and TCP layered models to examine the nature and roles of protocols and services at the application, network, data link, and physical layers. Principles and structure of IP addressing and fundamentals of Ethernet concepts, media, and operations are introduced to provide a foundation for the curriculum. Students use a model of the Internet to analyze real data without affecting production networks. (2 lec hrs., 3 lab hrs.)

**CENT 240B—Routing Protocols and Concepts (3)**

Cross-listed as Etro 240B

*CoReq: CENT 140 (or prior completion)*

Describes the architecture, components, and operation of routers, and explains the principles of routing and routing protocols. Students analyze, configure, verify, and troubleshoot the primary routing protocols. RIPv1, RIPv2, EIGRP, and OSPF. Course uses the Cisco Exploration curriculum and with other courses in the series, helps prepare students for the Cisco CCENT, CCNA and CompTIA Network+ industry certification examinations. (2 lec hrs., 3 lab hrs.)

**CENT 240C—LAN Switching and Wireless (3)**

Cross-listed as Etro 240C

*PreReq: CENT 240B*

Helps students develop an in-depth understanding of how switches operate and are implemented in the LAN environment for small and large networks. Beginning with a foundational overview of Ethernet, this course provides detailed explanations of LAN switch operation, LVAN implementation, Rapid Spanning Tree Protocol (RSTP), VLAN Trunking Protocol (VTP), Inter-VLAN routing, and wireless network operations. Students analyze, configure, verify, and troubleshoot VLANs, RSTP, VTP, and wireless networks. Campus network design and Layer 3 switching concepts are introduced. (2 lec hrs., 3 lab hrs.)

### **CENT 241—Accessing the WAN (3)**

Cross-listed as Etro 241

*CoReq: CENT 240C (or prior completion)*

Explains the principles of traffic control and access control lists (ACLs) and provides an overview of the services and protocols at the data link layer for wide-area access. Students learn about user access technologies and devices and discover how to implement and configure Point-to-Point Protocol (PPP), Point-to-Point over Ethernet (PPPoE), DSL, and Frame Relay. WAN security concepts, tunneling, and VPN basics are introduced. Concludes with a discussion of the special network services required by converged applications and an introduction to quality of service (QoS). (2 lec hrs., 3 lab hrs.)

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## **Creative Media**

### **CM 120—Introduction to Digital Video (3)**

*PreReq: "C" or better in Art 112*

*CoReq: Art 115 (or prior completion)*

A studio course in digital video production that provides students with the basic theory, practice, and techniques for digital video with sequential digitized imagery and synchronized sound. May be repeated for credit, up to 6 credits. (6 lec/lab hrs.)

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## **Culinary Arts**

### **Culn 111—Introduction to the Culinary Industry (2)**

*CoReq: Culn 112 and Culn 120*

Provides an overview of the culinary industry within the aspects of the entire hospitality industry. It provides students with an introduction to the historical, social, and cultural forces that have affected and shaped the industry of today. Students will identify job qualifications and opportunities, professional standards, communication skills, and attitudes essential for successful workers in the industry. (2 lec hrs.)

### **Culn 112—Sanitation and Safety (2)**

*CoReq: Culn 111 and Culn 120*

The study and application of the principles and procedures of sanitation and safety in the hospitality industry. Includes the study of food-borne illnesses, biological, chemical, and physical hazards, and cross-contamination as they may occur during the flow of food. An introduction to HACCP (Hazard Analysis Critical Control Point) and other sanitation and safety programs will also be presented. Safety issues and OSHA (Occupational Safety and Health Administration) guidelines and standards will be covered as they apply to the hospitality industry. (2 lec hrs.)

### **Culn 115—Menu Merchandising (2)**

*PreReq: "C" or better in Culn 111, "C" or better in Culn 112, and "C" or better in Culn 120*

*CoReq: Culn 131, Culn 140, and Culn 150*

A study of the factors involved in planning effective menus for a variety of food service operations. The course includes the design, format, selection, costing, pricing, and balance of menu items based on an understanding of the needs of various target markets. (2 lec hrs.)

### **Culn 120—Fundamentals of Cookery (5)**

*CoReq: Culn 111 and Culn 112*

An introduction to the fundamental concepts, skills, and techniques of cooking principles. Culinary skills addressing food preparation, presentation, and service in a safe and sanitary environment are emphasized. A combination of theory and hands-on experiences allow students to gain competencies in cooking methods for meat, poultry, fish, vegetables, fruits, salads, starches, sauces, and soups. Includes care and correct use of knives, tools, and equipment for professional kitchens. Interpreting standardized recipes, recognition of food cost factors, storage techniques, culinary terms, and other factors as they apply to standards expected of a food service worker for an entry level position are significant objectives covered. (2 lec hrs., 9 lab hrs.)

### **Culn 131—Short Order Cookery (3)**

*PreReq: "C" or better in Culn 111, "C" or better in Culn 112, and "C" or better in Culn 120*

*CoReq: Culn 115, Culn 140, and Culn 150*

Students apply skillful manipulative methods in the preparation (Mise en place is emphasized), presentation, and service of foods requiring a short cooking time. Experience will be gained in production techniques for short order cookery. Regional and/or ethnic foods and cuisines of various countries will be incorporated into menu format. Includes preparation of hot appetizers for specific events. (1 lec hr., 6 lab hrs.)

### **Culn 133—Bistro Cookery and Intro to Dining Room Service (6)**

*PreReq: "C" or better in Culn 111, "C" or better in Culn 112, "C" or better in Culn 120, and "C" or better in Culn 170*

Provides the application and reinforcement of basic concepts, skills, and techniques introduced in Culn 120 (Fundamentals of Cookery) to the operation of a bistro style dining service with an emphasis on fresh, locally produced foods prepared in a healthful and attractive manner. Menu will be designed utilizing a "Farm to Table" concept and scratch cookery. Recipe standardization and conversion, mise en place of correct quantity, freshness, and completeness will be stressed. Introduction to dining room service, Garde Manger and a la minute (cooked to order) cookery will be utilized for this course. Teamwork, personal and station organization, consistency, and patron satisfaction are cultivated. (2 lec hrs., 12 lab hrs.)

### **Culn 140—Cold Food Pantry (4)**

*PreReq: "C" or better in Culn 111, "C" or better in Culn 112, and "C" or better in Culn 120*

*CoReq: Culn 115, Culn 131, and Culn 150*

Focus on theory, laboratory, and production of cold food items such as types of salads, salad dressings, sandwiches, canapés, hors d'oeuvres, cold appetizers, desserts, and beverages as are produced and/or assembled in the pantry department of a food service establishment. Students gain additional experience in creating and developing recipe adaptations for cold food menu items from different cuisines and regions of the country. Emphasis on nutritional awareness and the preparation of menu items to assure maximum freshness. (1 lec hr., 9 lab hrs.)

**Culn 150—Fundamentals of Baking (4)**

*PreReq:* "C" or better in Culn 111, "C" or better in Culn 112, and "C" or better in Culn 120

*CoReq:* Culn 115, Culn 131, and Culn 140

An introduction to the fundamentals of basic baking: concept, skills, and techniques, for application in a commercial food service establishment. Emphasis on the study of ingredient functions, product identification, scaling, weights, measures, recipe formulas, use and maintenance of bake shop tools and equipment. Students produce bakery items such as: yeast breads, other yeast products, quick breads, cookies, pies, cakes, pastries, and desserts. Also incorporates the study of cost controls and pricing. (2 lec hrs., 6 lab hrs.)

**Culn 160V—Dining Room Service/Stewarding (2 or 4)**

*CoReq:* Culn 120 or Culn 131 or Culn 240

Students study and practice a variety of table service techniques and procedures. Course coverage includes salesmanship of food and beverage, tableside service techniques, interpersonal communication, and managing work flow between the dining room and kitchen. Course coverage also provides students with the principles and practices of the beverage operation and application of stewarding in a hotel or food service establishment. (variable hours)

**Culn 170—Food and Beverage Purchasing (3)**

*CoReq:* Culn 111, Culn 112, and Culn 120

Work experience and lecture course whereby students study, observe, and participate in storeroom operations in a hotel or food service establishment. Provides experience in ordering, receiving, pricing, storing, distributing, and controlling the flow of food, beverages, supplies, and equipment. Purchasing policies, handling requisitions, and the organization of a steward's department are also included. (1 lec hr., 6 lab hrs.)

**Culn 185—Culinary Nutrition (3)**

Provides basic overall nutrition education, including functions of nutrients, vitamins and minerals, metabolic and other physiological processes, diet-related health concerns, and global health issues. Designed specifically for Culinary students as a Natural Science elective. (3 lec hrs.)

**Culn 190—Food Business Startup (3)**

Surveys the food manufacturing environment in Hawai'i and abroad taking into consideration business challenges, innovations, and emerging trends. Students will explore traditional business models versus sustainable business models, and develop a lean business plan outline for their proposed product. Students will begin to consider the value added proposition of their product while assessing the market for concept viability. Funding, sourcing, distribution, promotion and pricing strategies, as well as the concept of scaling will be discussed. Students will review government compliance and Good Manufacturing Practices, as well as the legal steps and requirements for establishing a food manufacturing business. Students will also survey the small food business environment in Hawai'i, establishing a firm, decision-making processes, marketing assessments, financing, operations considerations, and exposure to government regulations. Students will work in the kitchen lab to initiate a product prototype, along with necessary safety and sanitation best practices. (2 lec hrs., 3 lab hrs.)

**Culn 220—Advanced Cookery (5)**

*PreReq:* "C" or better in Culn 111, "C" or better in Culn 112, "C" or better in Culn 120, "C" or better in Culn 133, and "C" or better in Culn 170

*CoReq:* Culn 240

This capstone course is designed to integrate previous culinary training and academic studies using fundamental cooking techniques, food science, aesthetics, managerial principles, and sensory perception in the operation of the dining room. Student teams will create menus with instructor input, organize production and service, define and staff kitchen stations and develop systems for efficient operation. Opportunity for more complex offerings and the experience of cooking with a broad variety of seasonings and higher end foods. Plated service will strengthen timing and a la minute cooking skills. (2 lec hrs., 9 lab hrs.)

**Culn 240—Garde Manger (4)**

*PreReq:* "C" or better in Culn 111, "C" or better in Culn 112, "C" or better in Culn 120, "C" or better in Culn 133, and "C" or better in Culn 170

*CoReq:* Culn 220

A study of the basic Garde Manger principles, techniques, and skills in the preparation of specialty items such as: aspic, chaud-froid, forcemeats, pâtés, terrines, galantines, mousses, hot and cold hors d'oeuvres, and canapés. Buffet service will also be highlighted, emphasizing buffet menu planning, portion considerations, presentations, and line logistics. (2 lec hrs., 6 lab hrs.)

**Culn 252—Patisserie (4)**

*PreReq:* "C" or better in Culn 150

Expands upon the baking skills and techniques learned in Culn 150 (Fundamentals of Baking) for preparing quality commercial products. Cakes, pastries, petit fours, chocolate, cookies, and other bakeshop items will be included in the laboratory practice. Emphasis on baking as a science dependent upon exact measurements, functions of ingredients, the proper tools, and increased manipulative skills required to assure consistent results in producing fine pastry items. (2 lec hrs., 6 lab hrs.)

**Culn 270—Food and Beverage Cost Control (4)**

*PreReq:* "C" or better in Culn 115, "C" or better in Culn 131, "C" or better in Culn 140, and "C" or better in Culn 150; and QM 120H or Math 100 or higher (not Math 120)

Students examine and identify the varied factors which influence food and beverage costs in a food service operation. Students use analytical tools and techniques to enable them to interpret, to make operating decisions, and to identify problems in achieving cost and quality control in a food and beverage system. A field experience to include computer generated information for a food service plan is a major requirement. (3 lec hrs., 3 lab hrs.)

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**Dance**

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**Dnce 153—Introduction to Dance Forms (3)**

Introduction to dance through history and culture. Students will learn basic movement and vocabulary of the major dance forms through theoretical perspectives and the performance of dance skills in the studio. (3 lec hrs.)

**Dnce 185—Modern/Jazz Dance I (3)**

Introduces technical skill in modern and jazz vocabularies and explores the creative processes of dance. (2 lec hrs., 2 lec/lab hrs.)

### **Dnce 190V—Aerial Dance I (2-3)**

*Recommended: Dnce 185*

An introduction to technical skills/creative processes in beginning aerial dance utilizing the single point low flying trapeze. (variable hours)

### **Dnce 195—Introduction to Environmental Dance (3)**

An introduction to how dance interfaces with various environments—both natural and man-made—and explores how dance is a vehicle to express environmental and relevant social issues. Emphasizes the relationship of dance to other art forms and especially the creative power of collaboration when dealing with themes expressing the human relationship with the environment. (3 lec hrs.)

### **Dnce 256—Creative Movement (3)**

Cross-listed as ECEd 256

*PreReq: Eng 21 or ESL 21 or placement in Eng 102; and Eng 22 or (ESL 22G and ESL 22W) or placement in Eng 100 or placement in Eng 100E*

*Recommended: ECEd 110 or Dnce 185 or HDFS 230*

An introduction to content, method, and processes for leading creative movement experiences for young people. The creative process, elements of movement and its relationship to other art forms, as well as its integration with other curricula are explored in this course. Teaching methods used in this course enable the design of lessons appropriate for a wide range of ages, interests, and developmental stages. Especially applicable to those in or planning to enter education or human service fields. May be repeated for credit, up to 6 credits. (3 lec hrs.)

### **Dnce 285—Modern/Jazz Dance II (3)**

*PreReq: Dnce 185*

A continuation of Modern/Jazz Dance I in which the student will continue more in-depth work in technique, improvisation, and composition. Performance skills will be stressed. (2 lec hrs., 2 lec/lab hrs.)

### **Dnce 290V—Aerial Dance II (2-3)**

*PreReq: Dnce 190V*

*Recommended: Dnce 185*

A continuation of Introduction to Aerial Dance in which the student learns more difficult technical skills and creative processes in aerial dance utilizing the single point low flying trapeze. May be repeated for credit, up to 6 credits. (variable hours)

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## **Diesel Mechanics**

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+ Valid driver's license required.

### **+ DiMc 120—Introduction to Diesel Engines (12)**

The theory and operation of diesel engines, maintenance and repair of diesel engine systems, shop safety/operation, component service and repair, engine disassembly, inspection, and assembly. Topics include: engine operating principles; cylinder blocks and heads; crankshaft and bearings; camshaft; gear train and timing; piston and connecting rod assemblies; engine lubricant and lubrication systems; engine coolants and cooling systems, and air intake and exhaust systems. (24 lec/lab hrs.)

### **+ DiMc 130—Introduction to Electrical Systems and Diesel Fuel Systems (12)**

*PreReq: "C" or better in DiMc 120*

The theory and operation of heavy-duty truck and equipment electrical systems and fuel systems, maintenance and repair of electrical and fuel systems, shop safety/operation, component service and repair, electrical and fuel diagnostics equipment usage, and troubleshooting procedures. (24 lec/lab hrs.)

### **+ DiMc 140—Introduction to Power Trains (12)**

*PreReq: "C" or better in DiMc 130*

The theory and operation of heavy-duty truck and equipment power train, maintenance and repair of power train, shop safety/operation, component service and repair, power train diagnostic equipment usage, and troubleshooting procedures. Topics include: clutches and flywheels, mechanical transmissions, drive lines, power take off, differentials, and final drivers. (24 lec/lab hrs.)

### **+ DiMc 150—Introduction to Heavy-Duty Brakes, Steering, Suspension, Hydraulics, and Hydrostatics (12)**

*PreReq: "C" or better in DiMc 140*

The theory, operation and maintenance of heavy-duty truck and equipment including brakes, steering and suspension systems, hydraulic and hydrostatic systems, shop safety/operation, component service and repair, system schematics, diagnostics, and alignment. (24 lec/lab hrs.)

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## **Early Childhood Education**

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### **ECEd 105—Introduction to Early Childhood Education (3)**

*PreReq: Eng 22 or (ESL 22G and ESL 22W) or placement in Eng 100 or placement in Eng 100E*

Introduces and explores the nature of the field of early childhood education and care. (3 lec hrs.)

### **ECEd 110—Developmentally Appropriate Practices (3)**

*PreReq: Eng 22 or (ESL 22G and ESL 22W) or placement in Eng 100 or placement in Eng 100E*

Introduces concepts of developmentally appropriate practice and the importance of play. Provides an overview of and experience with the knowledge and skills necessary for working with children birth through age eight, including children with special needs. (3 lec hrs.)

### **ECEd 115—Health, Safety, and Nutrition for the Young Child (3)**

*PreReq: Eng 22 or (ESL 22G and ESL 22W) or placement in Eng 100 or placement in Eng 100E*

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 the nutritional needs of young children and adults in group settings. (3 lec hrs.)

### **ECEd 131—Early Childhood Development: Theory into Practice (3)**

*PreReq: Eng 22 or (ESL 22G and ESL 22W) or placement in Eng 100 or placement in Eng 100E*

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 how this information of development affects one's expectations and relationship to the individual child. (3 lec hrs.)

### **ECEd 134—Introduction to Observation of Children (1)**

*PreReq: Eng 22 or (ESL 22G and ESL 22W) or placement in Eng 100 or placement in Eng 100E*

Provides guided experiences in observing young children in selected community sites. Develops skills in observing and recording children's behaviors accurately, descriptively, and objectively. (2 lec/lab hrs.)

### **ECEd 140—Guiding Young Children in Group Settings (3)**

*PreReq: Eng 22 or (ESL 22G and ESL 22W) or placement in Eng 100 or placement in Eng 100E*

Addresses positive ways to support children's social-emotional development. Focuses on adult-child and child-child interactions and relationships. (3 lec hrs.)

**ECed 152—Early Literacy Development (3)**

*PreReq: Eng 22 or (ESL 22G and ESL 22W) or placement in Eng 100 or placement in Eng 100E*

Surveys historical and contemporary perspectives on early literacy development. Includes exploration of how young children learn to read and write. Addresses what teachers and caregivers need to know and be able to do to support literacy development. (3 lec hrs.)

**ECed 170—Introduction to Infants and Toddlers (3)**

*PreReq: Eng 22 or (ESL 22G and ESL 22W) or placement in Eng 100 or placement in Eng 100E*

Provides an overview of the basic skills needed for working with infants and toddlers and their families in group care settings. Focuses on interactive aspects of child development. Introduces infant-toddler caregiving routines and environments, and caregiver roles. (3 lec hrs.)

**ECed 190—Early Childhood Laboratory (4)**

*PreReq: "C" or better in ECed 105 and "C" or better in ECed 110 and "C" or better in ECed 131 and "C" or better in ECed 140; and consent of the instructor to verify that the student meets the following requirements: First Aid Certification, TB Clearance, Criminal History and Child Welfare Clearance, and Physical Exam with doctor's note*

Provides the early childhood student with information on health and safety practices and appropriate curriculum in early childhood programs. Provides a setting to observe and experience maintaining a healthy, safe environment for children and staff, and to gain skills in working effectively with children, teachers and parents in a "model" early childhood program. Allows the student to participate in a group program for young children. Provides supervised practice in planning and guiding children's learning and routine living activities. Nine hours in a campus laboratory and one hour in seminar per week. (1 lec hr., 9 lab hrs.)

**ECed 191—Early Childhood Practicum I (4)**

*PreReq: "C" or better in ECed 105 and "C" or better in ECed 110 and "C" or better in ECed 131; and consent of instructor*

Provides practical application of early childhood studies which allow the student to participate in a group program for young children. Supervised practice in planning and guiding learning, and children's routine living activities. Emphasizes experiences that increase student's skills in dealing with group and individual behavior. (2 lec/lab hrs., 10 lab hrs.)

**ECed 245—Child, Family, and Community (3)**

*PreReq: ECed 105*

Develops communication skills and other strategies for building effective relationships with diverse families and relevant community members. Introduces students to the local resources available for family referral. (3 lec hrs.)

**ECed 252—Early Childhood Curriculum: Communication (3)**

*PreReq: ECed 110 and ECed 131*

Provides an overview of literacy, language arts, and literature for the early childhood years. Includes the teacher's role, the developmental perspective, teaching strategies, and materials in each area. Covers basic components and alternative structures for each of the subjects; as well as planning lessons, units, and making materials and games. Emphasizes practical, usable ideas and integrating subject areas into overall curriculum. A three hour weekly laboratory in an Early Childhood setting is required. (2 lec hrs., 3 lab hrs.)

**ECed 253—Early Childhood Curriculum: Physical (3)**

*PreReq: ECed 110 and ECed 131*

Provides an overview of sensory, small muscle and large muscle development for the early childhood years. Includes the teachers' role, the developmental perspective, teaching strategies and materials in each area. Covers basic components and alternative structures for each of the subjects; as well as planning lessons, units, and making materials and games. Emphasizes practical, usable ideas and integrating subject areas into overall curriculum. A three hour weekly laboratory in Early Childhood setting is required. (2 lec hrs., 3 lab hrs.)

**ECed 254—Early Childhood Curriculum: Cognitive (3)**

*PreReq: ECed 110 and ECed 131*

Provides an overview of science, mathematics, and social studies for the early childhood years. Includes the teachers' role, the developmental perspective, teaching strategies and materials in each area. Covers basic components and alternative structures for each of the subjects; as well as planned lessons, units and making materials and games. Emphasizes practical, usable ideas and integrating subject areas into overall curriculum. A three hour weekly laboratory in an Early Childhood setting is required. (2 lec hrs., 3 lab hrs.)

**ECed 255—Early Childhood Curriculum: Creative (3)**

*PreReq: ECed 110 and ECed 131*

Provides an overview of art, music, creative movement and dramatics for the early childhood years. Includes the teachers' role, the developmental perspective, teaching strategies and materials in each area. Covers basic components and alternative structures for each of the subjects; as well as planned lessons, units, and making materials and games. Emphasizes practical, usable ideas and integrating subject areas into overall curriculum. A three hour weekly laboratory in an Early Childhood setting is required. (2 lec hrs., 3 lab hrs.)

**ECed 256—Creative Movement (3)**

Cross-listed as Dnce 256

*PreReq: Eng 21 or ESL 21 or placement in Eng 102; and Eng 22 or (ESL 22G and ESL 22W) or placement in Eng 100 or placement in Eng 100E*

*Recommended: ECed 110 or Dnce 185 or HDFS 230*

An introduction to content, method, and processes for leading creative movement experiences for young people. The creative process, elements of movement and its relationship to other art forms, as well as its integration with other curricula are explored in this course. Teaching methods used in this course enable the design of lessons appropriate for a wide range of ages, interests, and developmental stages. Especially applicable to those in or planning to enter education or human service fields. May be repeated for credit, up to 6 credits. (3 lec hrs.)

**ECed 263—Language and Creative Expression Curriculum (3)**

*PreReq: ECed 110 and ECed 131*

Addresses creative and language disciplines, stages of development for each, and how these relate to appropriate early childhood curriculum. Includes designing curriculum for language, literacy, literature and creative expression (art, music, and creative movement/dance) based on observation of children. Students must have contact with preschool children in a formal setting for observation and implementation of course assignments. (3 lec hrs.)

### **ECed 264—Inquiry and Physical Curriculum (3)**

*PreReq: ECed 110 and ECed 131*

Addresses physical development and inquiry disciplines, stages of development for each, and how these relate to appropriate early childhood curriculum. Includes designing curriculum for physical development, and inquiry (math, science, and social studies) based on observation of children. Introduces integrated curriculum based on science and social studies topics. Students must have contact with preschool children in a formal setting for observation and implementation of course assignments. (3 lec hrs.)

### **ECed 275—Inclusion of Children with Special Needs (3)**

*PreReq: ECed 105 and ECed 110 and ECed 131*

Introduces legal, historical, and research information about serving young children with special needs in inclusive environments. Introduces issues and practices associated with establishing partnerships with families and understanding collaborative relationships that contribute to meeting the diverse needs of young children in inclusive settings. Facilitates the development of skills to adapt and modify the learning environment in line with developmentally appropriate practice. Introduces traditional and alternative assessment and identifies the skills necessary to facilitate successful transitions. (3 lec hrs.)

### **ECed 280—Introduction to Early Childhood Program Administration (2)**

*PreReq: ECed 190 or ECed 191*

*Recommended: Experience/employed as an Early Childhood Program Administrator*

Provides an introduction to administrative principles and practices of program planning, organization, personnel management, boards, and regulatory agencies. Surveys program handbooks, personnel policies, assessment tools, community resources, and fundraising ideas. (2 lec hrs.)

### **ECed 291—Early Childhood Practicum II (4)**

*PreReq: ECed 140, and "B" or better in ECed 190 or "B" or better in ECed 191; and consent of instructor*

Provides advanced practical application of early childhood studies which allows the student to participate in a group program for young children. Supervised practice in planning and guiding learning, and children's routine living activities. Emphasizes experiences that increase student's skills in dealing with group and individual behaviors. (2 lec/lab hrs., 10 lab hrs.)

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## **Earth Sciences**

### **Erth 101—Introduction to Geology (3)**

*PreReq: Eng 21 or ESL 21 or Eng 22 or (ESL 22G and ESL 22W) or placement in Eng 100 or placement in Eng 100E or placement in Eng 102*

The study of the earth, with emphasis placed on the materials, surface features, structures, and various erosional and depositional processes. (3 lec hrs.)

### **Erth 101L—Introduction to Geology Lab (1)**

*CoReq: Erth 101 (or prior completion)*

The study of the earth, with emphasis placed on the materials, surface features, structures, and various erosional and depositional processes. Laboratory to accompany Erth 101. (3 lab hrs.)

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## **E-Commerce**

### **ECom 100—Introduction to E-Commerce (3)**

*PreReq: Eng 21 or ESL 21 or placement in Eng 102; and Mkt 157*

*Recommended: Basic experience with computer usage and the Internet. Basic knowledge of Marketing. Basic knowledge of Web design.*

Provides an introduction to the technology and history of the internet and its use as an electronic commerce medium from informational websites to full online retail systems. Included in this introductory survey course will be an analysis and evaluation of retail and business-to-business internet-based systems. Coursework includes an analysis of e-commerce websites and internet and e-mail marketing techniques. (3 lec hrs.)

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## **Economics**

### **Econ 120—Principles of Economics (3)**

*PreReq: Eng 21 or ESL 21 or placement in Eng 102; and Eng 22 or (ESL 22G and ESL 22W) or placement in Eng 100 or placement in Eng 100E*

General understanding of the functioning of economic systems, including various approaches to the organization of production and allocation of resources, and of policies to achieve national economic goals. These include determination of national income, inflation, recession, unemployment, taxation, labor unions, environmental pollution, energy, and economic growth. (3 lec hrs.)

### **Econ 130—Principles of Microeconomics (3)**

*PreReq: Eng 21 or ESL 21 or placement in Eng 102; and Eng 22 or (ESL 22G and ESL 22W) or placement in Eng 100 or placement in Eng 100E; and Math 82X or placement in Math 100 or placement in Math 103*

Examination of the decision-making process of both households and firms. Analysis of the functioning of a competitive market system, using supply and demand models and the role of government in cases of market failure. (3 lec hrs.)

### **Econ 131—Principles of Macroeconomics (3)**

*PreReq: Eng 21 or ESL 21 or placement in Eng 102; and Eng 22 or (ESL 22G and ESL 22W) or placement in Eng 100 or placement in Eng 100E; and Math 82X or placement in Math 100 or placement in Math 103*

Examination of the forces determining levels of and changes in national income, employment and the price level, including the role of government through its fiscal and monetary policies. (3 lec hrs.)

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## **Electrical Installation and Maintenance Technology**

### **EIMT 20—Interior Wiring (12)**

*PreReq: Eng 20 or ESL 20 or placement in Eng 21 or placement in ESL 21*

*CoReq: Etro 120 (or prior completion)*

Covers safety regulations and procedures practiced in the construction trade and industry; the use of related hand tools and power equipment; basic interior wiring of electrical devices and equipment, lighting apparatus and low voltage equipment; electrical blueprints and symbols of residential wiring; various wiring methods and materials used; installation of temporary service pole stands; and the interpretation of current national and local electrical codes. (6 lec hrs., 15 lab hrs., 2 lec/lab hrs.)

**EIMT 22—Electricity Theory and Practice (12)**

*PreReq:* "C" or better in EIMT 20

*CoReq:* Eng 21 or ESL 21 or Eng 22 or (ESL 22G and ESL 22W) or higher (or prior completion); and Blpr 22B (or prior completion)

Covers basic Electron Theory, Ohm's Law, Power Law, series and parallel circuits, AC and DC circuits, magnetism, grounding, introduction to the basics of Photovoltaic principles, installation of permanent electrical services, and the introduction of electrical conduit bending. (6 lec hrs., 15 lab hrs., 2 lec/lab hrs.)

**EIMT 41—Commercial Wiring (12)**

*PreReq:* "C" or better in EIMT 22

*CoReq:* Blpr 30C (or prior completion)

Covers the installation of various types of electrical conduits in classified hazardous and non-hazardous locations; the installation of electrical services; blueprint reading and interpretations; and related duties of the electrical trade such as carpentry, masonry, plumbing, and refrigeration. (6 lec hrs., 15 lab hrs., 2 lec/lab hrs.)

**EIMT 43—Industrial Wiring (12)**

*PreReq:* "C" or better in EIMT 41

Covers power generation, transmission, and distribution; step-up and step-down power transformers; buck/boost transformers; electromagnetism; single-phase and three-phase motors; motor controls; and photovoltaic systems (off-grid & grid-tie). (6 lec hrs., 15 lab hrs., 2 lec/lab hrs.)

## Electronics Technology

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**Etro 120—Fundamentals of Electronics I (5)**

*PreReq:* Eng 20 or ESL 20 or placement in Eng 21 or placement in ESL 21

The basics of electron physics, Ohm's Law, direct and alternating current, network analysis, sinusoidal and non-sinusoidal voltage and current analysis of R,L,C passive components in passive filters. Also covers the proper care, use, and hands-on operation of test instruments such as DMMs, oscilloscopes, power supplies, function generators as used in voltage, current, resistance, and power measurements. (5 lec hrs.)

**Etro 120L—Fundamentals of Electronics I Lab (2)**

*PreReq:* Eng 20 or ESL 20 or placement in Eng 21 or placement in ESL 21

*CoReq:* Etro 120

Provides students with hands-on experience to what is presented in the Etro 120 lectures. Additionally, a software simulation program that accompanies the required textbook is used to correlate the respective lecture to support the confidence level of the student before physically accomplishing the hands-on lab experiments. (6 lab hrs.)

**Etro 121—Process Controls and Electronics Fabrication (3)**

*PreReq:* "C" or better in Etro 120, "C" or better in Etro 120L, "C" or better in Etro 143, and "C" or better in Etro 143L

*CoReq:* Etro 122

This introductory electronics fabrication and assembly course covers general shop safety using hand and machine tools, printed circuit board design, and manufacture using manual, CAD, and CNC milling techniques. Covers printed circuit board assembly and repair processes and techniques practiced in industry. Also covers sheet-metal fabrication and assembly techniques for box build through project enclosures. (3 lec hrs.)

**Etro 121L—Process Controls and Electronics Fabrication Lab (2)**

*CoReq:* Etro 121

Provides students with a direct application to what is presented in the Etro 121 lectures. Also provides hands-on experience in the use of basic hand and machine tools along with CAD, CAM, and CNC PC board milling techniques using industry techniques. Students will use fabrication tools used in industry in the fabrication of box build through for project enclosures. (6 lab hrs.)

**Etro 122—Fundamentals of Electronics II (5)**

*PreReq:* "C" or better in Etro 120, "C" or better in Etro 120L, "C" or better in Etro 143, and "C" or better in Etro 143L

*CoReq:* Etro 121, Etro 122L, and Etro 240B

Provides the basic principles of vacuum tubes, semiconductor devices, integrated circuits (ICs), measurement and analysis of linear and switching power supplies, single and multi-stage analog amplifiers, and oscillator circuits. (5 lec hrs.)

**Etro 122L—Fundamentals of Electronics II Lab (2)**

*CoReq:* Etro 122

Provides students with hands-on experience to what is presented in the Etro 122 lectures. Prior to constructing the lab experiments, students will use a software circuit simulation program called "Multisim", along with "Visual Calculator" created by the author of the lab manual. (6 lab hrs.)

**Etro 140—Network Fundamentals (3)**

Cross-listed with CENT 140

*Recommended:* Basic knowledge and use of PCs

Introduces the architecture, structure, functions, components, and models of the Internet and other computer networks. It uses the OSI and TCP layered models to examine the nature and roles of protocols and services at the application, network, data link, and physical layers. The principles and structure of IP addressing and the fundamentals of Ethernet concepts, media, and operations are introduced to provide a foundation for the curriculum. Students use a model of the Internet to analyze real data without affecting production networks. (2 lec hrs., 2 lec/lab hrs.)

**Etro 143—Digital Electronics (5)**

*CoReq:* Etro 120, Etro 140, and Etro 143L

An introductory course in digital circuit fundamentals. Topics include numbering systems, IC logic gates, Boolean Algebra in addition to the study of flip-flops, registers and counters, decoders, and multivibrators, A/D and D/A interfacing principles which will be applied to understanding the concepts of microprocessors. A follow-up study on these topics are covered in Etro 280: Microprocessor Architecture, Programming, and Interfacing. (5 lec hrs.)

**Etro 143L—Digital Electronics Lab (2)**

*CoReq:* Etro 143

Demonstrates the principles studied in Etro 143 by means of laboratory experiments. Digital electronics concepts presented in the lectures are verified and reinforced using simulations programs before building and testing digital logic and microprocessor circuits. (6 lab hrs.)

### **Etro 240B—Routing Protocols and Concepts (3)**

Cross-listed as CENT 240B

*PreReq: "C" or better in Etro 140*

Describes the architecture, components, and operation of routers, and explains the principles of routing and routing protocols. Students analyze, configure, verify, and troubleshoot the primary routing protocols. RIPv1, RIPv2, EIGRP, and OSPF. Course uses the Cisco Exploration curriculum and with other courses in the series, helps prepare students for the Cisco CCENT, CCNA and CompTIA Network+ industry certification examinations. (2 lec hrs., 2 lec/lab hrs.)

### **Etro 240C—LAN Switching and Wireless (3)**

Cross-listed as CENT 240C

*PreReq: "C" or better in Etro 240B*

Helps students develop an in-depth understanding of how switches operate and are implemented in the LAN environment for small and large networks. Beginning with a foundational overview of Ethernet, this course provides detailed explanations of LAN switch operation, VLAN implementation, Rapid Spanning Tree Protocol (RSTP), VLAN Trunking Protocol (VTP), Inter-VLAN routing, and wireless network operations. Students analyze, configure, verify, and troubleshoot VLANs, RSTP, VTP, and wireless networks. Campus network design and Layer 3 switching concepts are introduced. (2 lec hrs., 2 lec/lab hrs.)

### **Etro 241—Accessing the WAN (3)**

Cross-listed as CENT 241

*PreReq: "C" or better in Etro 240C*

Explains the principles of traffic control and access control lists (ACLs) and provides an overview of the services and protocols at the data link layer for wide-area access. Students learn about user access technologies and devices and discover how to implement and configure Point-to-Point Protocol (PPP), Point-to-Point over Ethernet (PPPoE), DSL, and Frame Relay. WAN security concepts, tunneling, and VPN basics are introduced. Concludes with a discussion of the special network services required by converged applications and an introduction to quality of service (QoS). (2 lec hrs., 2 lec/lab hrs.)

### **Etro 257—RF Communications (2)**

*PreReq: "C" or better in Etro 121, "C" or better in Etro 122, and "C" or better in Etro 122L*

*CoReq: Etro 240C and Etro 280*

Covers the basics of electronics circuits used in RF and digital communications, navigation, microwave, radar, oceanography, industrial, medical, and consumer line products. Includes the field of wireless communications that has come into its own with the overwhelming use of cellular, wireless LANs, and wireless sensor networks. (2 lec hrs.)

### **Etro 266—Introduction to Fiber Optics (3)**

*PreReq: "C" or better in Etro 240C, "C" or better in Etro 257, and "C" or better in Etro 280*

*CoReq: Etro 241 and Etro 287*

An introduction to fiber optic communications providing basic background information. Features hands-on training using industry standard termination tools/procedures and test equipment in installation, testing, and maintenance of fiber optic cabling systems. Provides a comprehensive overview of fiber optics as used in communications systems including telephone, CATV, and computers. Serves as a preparation course for the certified fiber optics installer or technician certification exam. Covers basics of the technology and its components for fiber optic communications; types of fiber, cabling, connectors and splices, couplers and other passive components, transmitters and receivers, optical switches, modulators, tools, and test equipment. (3 lec hrs.)

### **Etro 280—Microprocessors in Micro Controllers Programmable**

**Logic Control (3)**

*PreReq: "C" or better in Etro 121, "C" or better in Etro 122, and "C" or better in Etro 122L*

*CoReq: Etro 240C and Etro 257*

Provides the students with training on various microprocessor trainers to introduce their architecture, machine language programming, and the interfacing to the various I/O devices for industrial and automation applications. (3 lec hrs.)

### **Etro 287—Programmable Logic Controllers (3)**

*PreReq: "C" or better in Etro 240C, "C" or better in Etro 257, and "C" or better in Etro 280*

*CoReq: Etro 241, Etro 266, and Etro 287L*

Prepares students for work in maintaining, servicing, troubleshooting, and repairing PCs, peripheral devices, operating systems, communication systems and networks. Students will build, upgrade, install, maintain, and troubleshoot computer and networking hardware. Topics include cabling of voice and data networks, LANs and WANs architecture and protocols, networking devices, wireless networking, and network security. (3 lec hrs.)

### **Etro 287L—Programmable Logic Controllers Lab (1)**

*CoReq: Etro 287*

A lab to reinforce content of the Etro 287 lecture. Students gain hands-on experience working with computer hardware, peripheral devices, operating systems, and with wired and wireless networks by working on a series of laboratory assignments. Students will build, upgrade, install, maintain, and troubleshoot computer and networking hardware. Operating system installation, optimization, and troubleshooting also included. (3 lab hrs.)

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## **Engineering Technology**

### **EngT 100—Drafting Conventions and Blueprint Reading (4)**

*Recommended: High school mechanical drawing*

Designed for students interested in technical drawing. An introduction to basic manual drafting practices, procedures, equipment use, lettering, and architectural symbols, as well as basic residential construction materials used today. Orthographic projection and pictorial drawings will be used to emphasize the importance of visualization and interpretation of construction working drawings. Students will also be introduced to Electrical, HVAC, Welding and Plumbing Plans. (4 lec hrs.)

### **EngT 107—Unmanned Aerial Systems Flight (4)**

Prepares students to become commercial unmanned aircraft operators. It is divided into two parts, preparing the students to pass the FAA Part 107 Exam and actual flight experience under different mission scenarios and environmental conditions. This course will demonstrate the physics of flight as it pertains to Unmanned Aerial Vehicles (UAV). Upon passing this course, the student will be prepared to take the FAA Part 107 Exam and have enough flight hours to safely fly in a commercial environment. (8 lec/lab hrs.)

### **EngT 112—Computer Aided Drafting (CAD) (3)**

*Recommended: Mechanical drawing and computer keyboarding experience*

Introduction to AutoCAD's basic drawing commands including features, functions, and operations. Students will also learn how to create blocks, external references, and how to utilize paper and model space layouts. (3 lec hrs.)



**EngT 120—Residential Design and Construction Drawings (4)**

*PreReq: EngT 100, EngT 107, and EngT 112*

An introductory course into Architectural design concepts used to create a full set of construction drawings utilizing data gathering methods from previous designs and inputting data gathered into AutoCAD. (4 lec hrs.)

**EngT 129—Geomatics and Land Surveying I (3)**

*CoReq: EngT 107 and EngT 112 (or prior completion of either)*

Introduction to geomatics and land surveying science, terminology, field practices, equipment, hardware and software for measuring, locating, and mapping geographic features on the face of the earth. Students will learn how to set up survey field equipment and use collected data to import into Civil 3-D software. Emphasis will focus on measuring horizontal distances on steep slopes, alignment between points, and correcting common errors in measuring distances. Students will also be introduced to site plan drawings including maps, surveys, contours and profiles, site plans, site utilities, and land excavation. (3 lec hrs.)

**EngT 230—Residential Contract Drawings and Codes (6)**

*PreReq: "C" or better in EngT 120*

*Recommended: Proficiency in CAD and manual drafting*

Advanced study and application of materials and methods of construction related to 2-story dwelling planning, remodeling and sustainable design practices with applicable code compliance, utilizing wood framing, and concrete construction principles to create a complete set of contract drawings. Students will be able to gather data from existing structures using historical drawings and/or electronic data gathering methodologies such as LiDAR. (6 lec hrs.)

**EngT 233—Basic Architectural Studio Design (3)**

*PreReq: "C" or better in EngT 100 and "C" or better in EngT 112*

Elements and principles of basic two and three-dimensional design concepts. Formal/spatial exercises that explore elements, surfaces, measure, and order in both graphic and architectural contexts. Students practice various design processes and systematic approaches to solving architectural and environmental design problems. Students analyze architecture as the creation of spaces generated by human needs and aspirations and develop concepts to explore and achieve innovated solutions responding to these needs. Studio activities involving thinking, reading, writing, model making, and a variety of communication techniques with emphasis on the delineation of 3D spaces using perspective drawing techniques, light notation, and computer modeling. (3 lec hrs.)

**EngT 234—Architectural Design Software (3)**

*PreReq: "C" or better in EngT 100 and "C" or better in EngT 112*

*Recommended: Computer skills*

An introduction to 3D modeling programs, such as SketchUp, Revit, and ArcGIS, primarily aimed at construction project designs. Topics include the user interface, basic modeling concepts, and object creation. (3 lec hrs.)

**EngT 247—Geomatics and Land Surveying II (3)**

*PreReq: "C" or better in EngT 112 and "C" or better in EngT 129*

Students will be introduced to new technologies in Geomatics and Land Surveys for measuring, locating, and mapping geographic features on the face of the earth. Field and office procedures for Control, Boundary, and Topographic surveys will be explored. Students will operate technology, such as drones, LiDAR, and RTK Technology (real time kinetics, which is GPS base measurements) to gather and analyze data. (3 lec hrs.)

**EngT 270—Introduction to Geographic Information Systems (GIS) (4)**

Cross-listed as Geo 270

Introduces students to the fundamental principles and techniques of Geographic Information Systems (GIS), a computer-based tool that uses spatial (geographic) data to analyze and solve real-world problems. The lab material will emphasize the foundational skills for working with GIS including field data collection, data exploration, and map making. Through completion of course activities, students will learn how to collect data in the field using GPS receivers, use ArcGIS Online to create web maps and apps to explore and visualize data, and learn to import data from online databases and data clearinghouses in vector and raster formats. (8 lec/lab hrs.)

**EngT 275—Spatial Data Management and Analysis (4)**

*PreReq: EngT 107 and (EngT 270 or Geo 270)*

Provides students with in-depth data analysis skills-based on new and existing data sets from Hawai'i and exposure to relevant UAS remote sensing technology. Primary focus will build upon previous knowledge of GIS mapping and UAS operations to incorporate remote sensing data and UAS aerial topology measurements for analysis and advanced mapping and visualization processes. Students' projects will contain all aspects of data collection using best of breed software technologies to produce final analysis in preparation for presentations. (4 lec hrs.)

**EngT 291—Rural and Urban Remote Sensing (4)**

Cross-listed as Ag 291

*PreReq: EngT 107 and (EngT 270 or Geo 270)*

Places an emphasis on collecting data using remote sensing equipment and software. It will provide students with field experiences in the methods used to assess natural resources and environmental designs. Students will gain experience collecting and interpreting UAS drone data using different sensors. Students will be exposed to a variety of environmental sampling methods that are used in assessing ecosystems. Analysis of data will include site development and sustainable measure guidelines used by various national organizations and programs. (8 lec/lab hrs.)

## English

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**Eng 20—Reading and Writing Essentials (4)**

*PreReq: Placement in Eng 20*

An introduction to the reading, reasoning, and writing skills essential to succeed in pre college-level English courses. Through development of study skills and practice in reading, discussion, summarizing of concepts, and incorporating ideas into writing, this course will familiarize students with the components of critical thinking and composition. (4 lec hrs.)

**Eng 21—Introduction to College Reading (3)**

*PreReq: "C" or better in Eng 20 or placement in Eng 21*

Development of reading comprehension and critical reading skills. Focus on varied reading strategies, context, vocabulary, summarizing and paraphrasing, and on study skills. (3 lec hrs.)

**Eng 22—Introduction to Composition (3)**

*PreReq: Eng 20 or placement in Eng 21; and "C" or better in Eng 20 or placement in Eng 22*

Instruction and practice in writing clear, effective, well-developed paragraphs and short essays using various modes of development. (3 lec hrs.)

## Which English Course Should I Take?

English (Eng) courses cover two different areas: Reading and Writing, and different progressions for native speakers of English and non-native speakers of English (ESL). If you have any questions, see an advisor or counselor.

Placement is required for all Eng courses. Other Hawai'i CC courses may have Eng prerequisites too, so closely check the prerequisites for each course to see what must be taken *before* enrolling in that course. For example, Psy 100 requires Eng 21 or ESL 21 or Eng 22 or (ESL 22G and ESL 22W) or placement in Eng 100 or placement in Eng 100E or placement in Eng 102.

Also, carefully review the Eng requirements for your major. See your program advisor if you have any questions.

\*\* IEP-ESOL: classes offered by Hawai'i CC's Intensive English Program - English for Speakers of Other Languages

### **Eng 100—Composition I (3)**

*PreReq: "C" or better in Eng 21 or "C" or better in ESL 21 or placement in Eng 102; and "C" or better in Eng 22 or ("C" or better in ESL 22G and "C" or better in ESL 22W) or placement in Eng 100 or placement in Eng 100E*

*Recommended: Eng 102*

Instruction and practice in writing clear, effective university-level prose. Attention to all stages of the process—generating ideas, drafting, revising, and editing. (3 lec hrs.)

### **Eng 100E—Composition I (ESL) (3)**

*PreReq: "C" or better in Eng 21 or "C" or better in ESL 21 or placement in Eng 102; and "C" or better in Eng 22 or ("C" or better in ESL 22G and "C" or better in ESL 22W) or placement in Eng 100 or placement in Eng 100E*

*Recommended: Experience using computers for writing*

Designed specifically for non-native speakers of English and aims to empower English language learners to become proficient and self-reliant writers of academic English. Its framework includes: 1) extensive development of academic vocabulary, 2) explicit instruction to address common grammar errors for English language learners, 3) attention to listening and speaking skills, 4) consideration for aspects of American culture and American academic writing conventions, and 5) emphasis in the construction of clear, effective university-level prose with attention to all stages of the writing process. (3 lec hrs.)

### **Eng 102—College Reading Skills (3)**

*PreReq: "C" or better in Eng 21 or "C" or better in ESL 21 or placement in Eng 102; and Eng 20 or ESL 20 or placement in Eng 22 or (placement in ESL 22G and placement in ESL 22W)*

Emphasis on reading college-level materials, including improvement in the following areas: study skills, college vocabulary, flexible and strategic reading skills, comprehension and critical reading of fiction and non-fiction, and library research. (3 lec hrs.)

### **Eng 103—Critical Reading, Thinking, Problem Solving (3)**

*PreReq: Eng 21 or ESL 21 or placement in Eng 102; and Eng 22 or (ESL 22G and ESL 22W) or placement in Eng 100 or placement in Eng 100E*

Emphasis on critical reading, thinking, and problem solving skills, and interpreting literature. Use of higher level reading skills of analysis, interpretation, and integration to develop increased thinking and reading proficiency at the college level. (3 lec hrs.)

### **Eng 105—Reading Film (3)**

*PreReq: "C" or better in Eng 22 or ("C" or better in ESL 22G and "C" or better in ESL 22W) or placement in Eng 100 or placement in Eng 100E*

*Recommended: Eng 21 or ESL 21 or placement in Eng 102*

Introduces students to the study of film techniques and interpretation. Using a variety of films, especially those with a connection to Hawai'i, the course surveys the artistry and cultural significance of fictional films and their alternatives. Students inquire into how films generate meaning and how viewers attribute value to films. (3 lec hrs.)

### **Eng 106—Technical English for the Workplace (3)**

*PreReq: "C" or better in Eng 21 or "C" or better in ESL 21 or placement in Eng 102; and "C" or better in Eng 22 or ("C" or better in ESL 22G and "C" or better in ESL 22W) or placement in Eng 100 or placement in Eng 100E*

Instruction and practice in the reading and writing skills necessary to communicate in professional settings. Emphasis on skills such as defining purpose, understanding audience, analyzing and evaluating texts, conducting research, and all phases of the writing process. Does not fulfill the English requirement for AA transfer degrees. (3 lec hrs.)

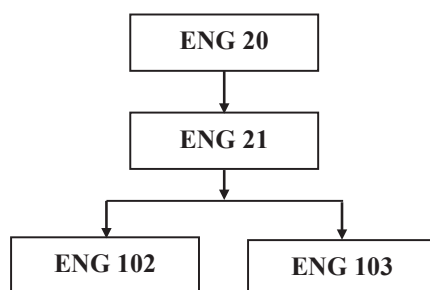
### **Eng 204—Creative Writing (3)**

*PreReq: "C" or better in Eng 100 or "C" or better in Eng 100E*

*Recommended: Eng 102*

Students will produce original work in the following genres: creative nonfiction, drama, fiction, and poetry. Includes reading and analyzing published works and discussions of each student's writing. May be repeated for credit, up to 9 credits. (3 lec hrs.)

## Reading Progression



### Eng 215—Research Writing for Humanities and Social Sciences (3)

*PreReq:* “C” or better in Eng 100 or “C” or better in Eng 100E; and “C” or better in Eng 102

*Recommended:* Students should have experience in using computers for research and writing.

Building on reading and writing skills acquired in English 100 and English 102, course emphasizes academic reading, writing, and research skills for students in Humanities and Social Sciences. Focuses on blending at least two or three rhetorical modes, using MLA and APA documentation styles, in writing informative, analytical, and argumentative essays supported by research. (3 lec hrs.)

### Eng 255—Types of Literature: Short Story and Novel (3)

*PreReq:* Eng 100 or Eng 100E

*Recommended:* Eng 102

An introduction to two major types of English literature: the short story and the novel. Students will read, analyze, and discuss works of fiction as well as learn how to apply principles of interpretation to other literary works. The goal of the course is to help students achieve a greater understanding, appreciation, and enjoyment of literature. (3 lec hrs.)

### Eng 256—Types of Literature: Poetry and Drama (3)

*PreReq:* Eng 100 or Eng 100E

*Recommended:* Eng 102

An introduction to two major types of English literature: poetry and drama. Students will read, analyze, and discuss poems and plays as well as learn how to apply principles of interpretation to other literary works. The goal of the course is to help students achieve a greater understanding, appreciation, and enjoyment of literature. (3 lec hrs.)

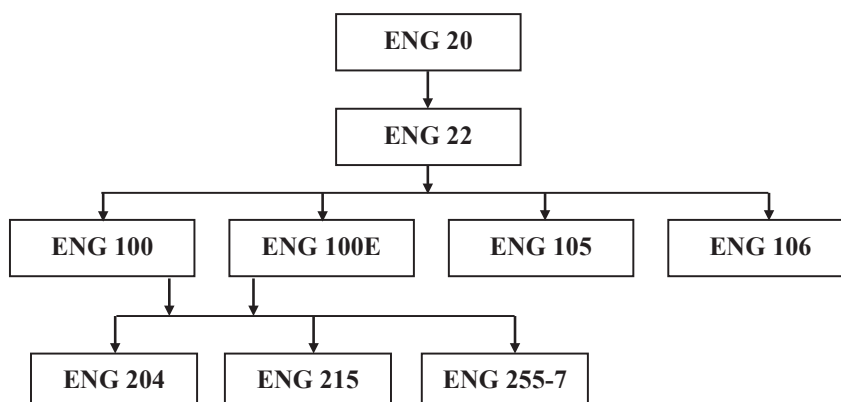
### Eng 257A—Themes in Literature: Literature of Hawai‘i (3)

*PreReq:* Eng 100 or Eng 100E

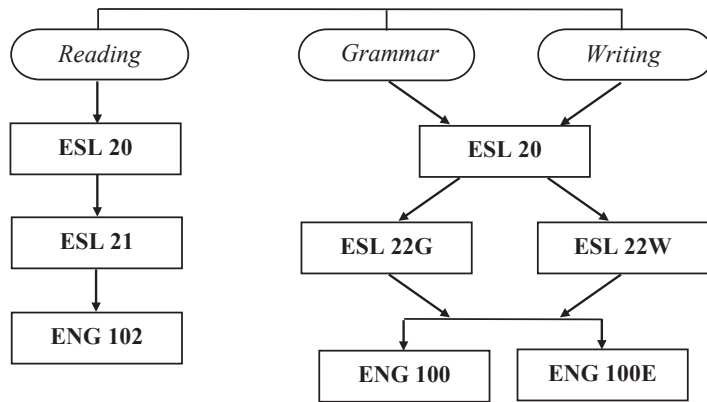
*Recommended:* Eng 102

Introduces students to persistent themes that appear in the English language literature of Hawai‘i. Literary contributions from a wide range of sources representative of Hawai‘i’s rich cultural and ethnic diversity will be studied in their historical and cultural context. Emphasis will be placed on the themes that help readers to appreciate the ideological and aesthetic qualities specific to Hawai‘i’s literature as well as those that identify Hawai‘i as part of a global community. (3 lec hrs.)

## Writing Progression



### ESL Progression Chart



**Eng 257E—Themes in Literature: Multi-Cultural Literature (3)**

*PreReq: Eng 100 or Eng 100E*

*Recommended: Eng 102*

This multi-cultural literature course introduces students to the ethnic diversity of American literature. Readings include texts from a variety of cultural perspectives. Specific topics vary by semester. (3 lec hrs.)

**ESL 21—Introduction to College Reading (ESL) (3)**

*PreReq: "C" or better in ESL 20 or "C" or better in Eng 20 or placement in ESL 21 or placement in Eng 21*

ESL 21 is an advanced-level course designed to help students develop essential college-level reading skills. The focus is to provide strategies that will help students understand what they read and to give them confidence in identifying the central points, main ideas, and important details of academic readings; drawing inferences, and developing critical reading skills. Students will use vocabulary strategies to assist them in becoming fluent readers. (3 lec hrs.)

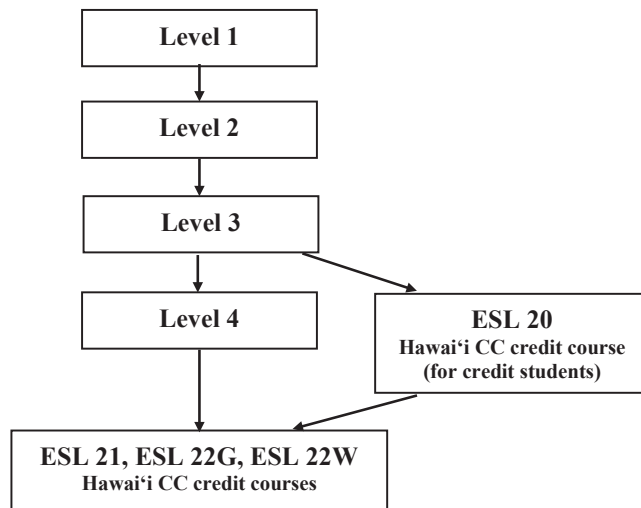
### English as a Second Language

**ESL 20—English Essentials (4)**

*PreReq: Placement in ESL 20 or placement in Eng 20*

ESL 20 focuses on the fundamental skills needed to become a proficient reader and writer of English. This course concentrates on developing reading strategies, academic vocabulary, sentence structure, grammar concepts, and writing through a process approach. (4 lec hrs.)

### IEP (ESOL) Progression



### ESL 22G—Advanced Grammar (ESL) (3)

*PreReq:* “C” or better in ESL 20 or “C” or better in Eng 20 or placement in ESL 21 or placement in Eng 21; and “C” or better in ESL 20 or “C” or better in Eng 20 or placement in ESL 22G or placement in Eng 22; and “C” or better in ESL 20 or “C” or better in Eng 20 or placement in ESL 22W or placement in Eng 22

ESL 22G is an advanced-level course in which students acquire knowledge of grammar essential for successful academic writing. As grammar points are presented, students apply the grammar they learn by editing passages from varied texts, including student writing and their own drafts. The class focus is to help students develop a greater awareness of language usage, identify patterns of errors, and learn to independently and systematically use editing skills. Class activities include practice and focus on identifying various sentence patterns; writing clear, effective sentences; and expanding independent editing skills. (3 lec hrs.)

### ESL 22W—Introduction to Composition (ESL) (3)

*PreReq:* “C” or better in ESL 20 or “C” or better in Eng 20 or placement in ESL 21 or placement in Eng 21; and “C” or better in ESL 20 or “C” or better in Eng 20 or placement in ESL 22G or placement in Eng 22; and “C” or better in ESL 20 or “C” or better in Eng 20 or placement in ESL 22W or placement in Eng 22

*CoReq:* ESL 22G (or prior completion)

ESL 22W emphasizes writing essays on academic topics. The focus is on reading-based writing, paraphrasing, summarizing, expanding student knowledge of the writing process, and applying these skills to write well-organized essays. Students participate in small group discussion(s), review, editing, proofreading, and revising activities. Student writing reflects fluency in constructing clear, correct sentences with accurate word choice and control of varied sentence structures. (3 lec hrs.)

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## Entrepreneurship

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### Ent 125—Starting a Business (3)

*PreReq:* “C” or better in Eng 21 or “C” or better in ESL 21 or “C” or better in Eng 22 or (“C” or better in ESL 22G and “C” or better in ESL 22W) or placement in Eng 100 or placement in Eng 100E or placement in Eng 102

Surveys the business environment, establishing a business entity, decision-making processes, marketing assessments, financing, operations considerations, and government regulations as they relate to the development of a formal business plan. It is designed for those who wish to start or are currently operating their own business. (3 lec hrs.)

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## Fire and Environmental Emergency Response

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### Fire 101—Essentials of Fire Suppression (3)

*PreReq:* Eng 21 or ESL 21 or placement in Eng 102

*CoReq:* Fire 101L, Fire 151, and Fire 156

Provides students with a comprehensive initial introduction to suppression of structural fires. Introduces definitions, terminology, and a brief history of structural fire suppression. Provides students with a basic knowledge of fire behavior, how and what materials burn, extinguishment systems, and basic methods of suppression. (3 lec hrs.)

### Fire 101L—Essentials of Fire Suppression Laboratory (1)

*PreReq:* Eng 21 or ESL 21 or placement in Eng 102

*CoReq:* Fire 101, Fire 151, and Fire 156

A lab to accompany the Fire 101 lecture. Students will be provided with hands-on experience and instructed in the safe and proper handling of equipment used in the suppression of structural fires. (3 lab hrs.)

### Fire 151—Introduction to Wildland Fire Control (3)

*PreReq:* Eng 21 or ESL 21 or placement in Eng 102

*CoReq:* Fire 101 and Fire 156

Introduces definitions, concepts, theories, and principles of modern wildland fire control. Provides students with an overall introduction to theory and application in basic wildland fire suppression, fire behavior, wildland fire operations, suppression methods, tools, and equipment. An emphasis on safety. Completion of this course meets current NWCG 310-1 standards for Firefighter Type 2, and the required training for issuance of a Red Card. (3 lec hrs.)

### Fire 153—Advanced Wildland Firefighting (3)

*PreReq:* Fire 151

Designed to meet the training needs for both Advanced Firefighter/Squad Boss and Incident Commander Type 5 positions. Covers how to: properly document the appropriate information during fire suppression activities; incorporate and maintain open lines of communication with all appropriate fire suppression personnel; apply LCES (Lookouts, Communications, Escape Routes, and Safety Zones) to fire line tactics; and demonstrate the steps required to properly size up a fire situation and determine appropriate tactics. (3 lec hrs.)

### Fire 156—Incident Command System (3)

*PreReq:* Eng 21 or ESL 21 or placement in Eng 102

*CoReq:* Fire 101 and Fire 151

Course describes the Incident Command System (ICS). Collectively, these features identify the unique quality of ICS as a management system for all emergency and planned event incidents. Principle features are: management by objectives, chain of command, transfer of command, organizational flexibility, integrated communications, common terminology, and developing an Incident Action Plan. In addition, Homeland Security Presidential Directive-5 requires all federal, state and local agencies to adopt the National Incident Management System (NIMS) which ICS is part of. (3 lec hrs.)

### Fire 157—Intermediate Wildland Fire Behavior (3)

*PreReq:* Fire 151

Designed to instruct prospective fireline personnel in wildland fire behavior for effective and safe fire management operations. Fire behavior is not an independent phenomenon - it is the product of the environment in which the fire is burning. Certain types of fire behavior are considered unusual or unexpected only because of the failure 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, one must understand and use the interactions of fire with its environment. Examines the fire environment: what it is, how it varies and why, and how fire itself alters the total picture. (3 lec hrs.)

### Fire 202—Fire Hydraulics (3)

*PreReq:* Fire 101; and “C” or better in Math 82X or placement in Math 100 or placement in Math 103

Introduces terminology, definitions, and basic and complex formulas involved in fire service hydraulics. Helps students gain an understanding of the complexities involved in modern apparatus pumping and water delivery systems. Focuses on commonly used equipment and applying simple and complex mathematical formulas (theory), plus standard rules applied in fire service to gain an overall understanding of hydraulics and hydraulics application. (3 lec hrs.)

**Fire 207—Hazardous Materials Awareness and Operations (3)***PreReq: Fire 153*

Students are introduced to initial response for Hazardous Material Incidents. Upon completion, the student will meet the training requirements of the National Fire Protection Association (NFPA), Office of Safety and Health Administration (OSHA), and the Office of Domestic Preparedness (ODP) to perform at the Awareness and Operations level. Topics include: personal safety, regulations, toxicology, Incident Command System, decontamination, chemical resources, initial response, assessment, and strategic and tactical options for HAZMAT incidents. (3 lec hrs.)

**Fire 210—Fire Administration (3)***PreReq: Fire 153 and Fire 157*

Provides the student with an overall understanding of the science, leadership, and modern management in the fire service. Topics include: developing a game plan for personal success, the principles of leadership and management, leadership ethics, managing emergency services, analytical approaches to public fire protection, and community disaster planning. (3 lec hrs.)

**Fire 212—Firefighting Strategies and Tactics (3)***PreReq: Fire 153 and Fire 157*

Introduces essential elements, definitions, and terminology involved in analyzing the nature of fire, and determining needs and requirements to extinguish fires. Students develop an understanding of complexities involved in suppressing fires. Students will learn manpower, equipment, and practices with an emphasis on pre-planning, study of conflagration problems, and fire ground organization. This is a building block for future tactics and strategy classes taught by State and Federal fire programs. (3 lec hrs.)

**Fire 215—Wildland/Urban Interface Operations (3)***PreReq: Fire 153 and Fire 157*

An introduction to the strategies, tactics, techniques, tools, and safety considerations related to fire operations in the wildland/urban interface. Involves aspects of suppression and prevention. (3 lec hrs.)

**Fire 217—Firefighter Life Safety (3)***PreReq: Fire 212*

This course was developed through the National Fire Academy's Fire and Emergency Services Higher Education (FESHE) initiative. Firefighting is one of the nation's most hazardous occupations. The National Fallen Firefighter Foundation's 16 Firefighter Life Safety Initiatives provide a framework within which fire and emergency response personnel can identify and address the issues that constitute risks of both injury and loss of life. (3 lec hrs.)

**Fire 250—Emergency Medical Technician (10.5)***PreReq: "C" or better in Hlth 125; and "C" or better in Eng 100 or "C" or better in Eng 100E**CoReq: Fire 251*

*Recommended: Students may be required to complete a background check, drug screen, TB skin test within last 6 months, and MMR/Varicella/Hepatitis B/Influenza vaccination/titers or boosters. Students may be required to purchase/obtain: uniforms, supplies/equipment, and insurance. Internet access and participation in service learning activities required.*

Focuses on providing the cognitive knowledge and psychomotor skills necessary to become a nationally registered Emergency Medical Technician (EMT). EMTs provide out of hospital emergency medical care and transportation for critical and emergent patients who access the emergency medical services (EMS) system. EMTs also provide assistance in other healthcare arenas. EMTs have the basic knowledge and skills necessary to stabilize and safely transport patients ranging from non-emergency and routine medical transports to life threatening emergencies. Emergency Medical Technicians function as part of a comprehensive EMS response system, under medical oversight. Emergency Medical Technicians perform interventions with the basic equipment typically found on an ambulance. EMTs are a critical link between the scene of an emergency and the health care system. This course meets the curriculum standards set forth by the National Highway Traffic Safety Administration (NHTSA). (8.85 lec hrs., 3.2 lec/lab hrs.)

**Fire 251—Emergency Medical Technician Practicum (1.6)***PreReq: "C" or better in Hlth 125; and "C" or better in Eng 100 or "C" or better in Eng 100E**CoReq: Fire 250**Recommended: American Heart Association CPR certification*

Provides students with opportunities to apply EMT knowledge and skills in the setting of ambulances, hospitals, and clinics. (3.2 lec/lab hrs.)

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## Geography and Environment

+ If a student/participant is under 18 years of age a co-signature of parent or guardian is required on the Assumption of Risk and Release Form.

**+Geo 101—Geography and the Natural Environment (3)***PreReq: Eng 21 or ESL 21 or Eng 22 or (ESL 22G and ESL 22W) or placement in Eng 100 or placement in Eng 100E or placement in Eng 102*

Survey of the natural environment of the earth; distribution and interrelationships of climate, vegetation, soils and landforms with a focus on Hawai'i and the Pacific. Emphasis will be placed on current environmental problems and issues as they are related to course content. (3 lec hrs.)

**+Geo 101L—Geography and the Natural Environment Lab (1)***PreReq: Eng 21 or ESL 21 or Eng 22 or (ESL 22G and ESL 22W) or placement in Eng 100 or placement in Eng 100E or placement in Eng 102**CoReq: Geo 101 (or prior completion)*

Analysis of the natural environment through the use of maps, airphotos, field and laboratory observation and experimentation. Emphasis on Hawai'i and upon human modification of the environment. (3 lab hrs.)

**Geo 102—World Regional Geography (3)**

*PreReq: Eng 21 or ESL 21 or Eng 22 or (ESL 22G and ESL 22W) or placement in Eng 100 or placement in Eng 100E or placement in Eng 102*

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 as they relate to human use of, and impact on, the land and resources. (3 lec hrs.)

**Geo 122—Geography of Hawai'i (3)**

*PreReq: Eng 21 or ESL 21 or Eng 22 or (ESL 22G and ESL 22W) or placement in Eng 100 or placement in Eng 100E or placement in Eng 102*

Surveys the physical and cultural geography of the Hawaiian Islands. Physical geography will emphasize the volcanic landforms, coastal features, climate and vegetation. Cultural aspects will include population, settlement, agriculture, economics and land use. Students will be expected to learn the names and locations of physical and cultural features of the Hawaiian Islands. (3 lec hrs.)

**Geo 170—Forest Ecosystem Surveying, Inventorying, and Monitoring (3)**

*PreReq: Eng 22 or (ESL 22G and ESL 22W) or placement in Eng 100 or placement in Eng 100E; and Math 75X or Math 82X or placement in Math 103 or placement in Math 115*

*CoReq: Geo 170L (or prior completion)*

*Recommended: ICS 101 or Busn 150*

Designed for students in Forest TEAM and related careers. Methods used to survey, inventory and monitor native and planted forest ecosystems utilizing analog and electronic instruments. Discussion of the selection of sample sites and measurement of environmental and biological variables of forest ecosystems. Methods of analyzing information from data loggers and GPS units for computer analysis. (3 lec hrs.)

**Geo 170L—Forest Ecosystem Surveying, Inventorying, and Monitoring Laboratory (1)**

*CoReq: Geo 170*

Designed for students in Forest TEAM and related careers. Field laboratory to accompany Geography 170. Methods used to survey, inventory and monitor native and planted forest ecosystems utilizing optical and electronic instruments learned in the lecture section will be carried out in the lab. Field methods of selecting sample sites and measuring the environmental and biological variables of the forest. Data loggers and GPS units will be used to record data in the forest for computer analysis. (3 lab hrs.)

**Geo 270—Introduction to Geographic Information Systems (GIS) (4)**

Cross-listed as EngT 270

Introduces students to the fundamental principles and techniques of Geographic Information Systems (GIS), a computer-based tool that uses spatial (geographic) data to analyze and solve real-world problems. The lab material will emphasize the foundational skills for working with GIS including field data collection, data exploration, and map making. Through completion of course activities, students will learn how to collect data in the field using GPS receivers, use ArcGIS Online to create web maps and apps to explore and visualize data, and learn to import data from online databases and data clearinghouses in vector and raster formats. (8 lec/lab hrs.)

**Geo 270L—Geographic Information System in Forest Ecosystem Management Laboratory (1)**

*CoReq: Geo 270*

Designed for students in Forest TEAM and related careers. Laboratory to accompany Geography 180 will give students hands-on experience in using ArcView and Spatial Analyst. Laboratory exercises and independent projects will apply GIS developing computer generated map layers for resource management decision making. (3 lab hrs.)

**Geo 292V—Special Topics: Study Abroad (1-12)**

Special topics allows addition of subjects that meet current needs in study abroad and global education. It will be used for elective credit. May be repeated for credit provided that a different topic is studied, up to 24 credits. (variable hours)

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## Hawaiian

**Haw 101—Elementary Hawai'i Language I (4)**

Study of basic structures of Leo Hawai'i or Hawai'i Language. Emphasis on listening, speaking, reading, and writing skills within a Hawai'i cultural context. (4 lec hrs.)

**Haw 102—Elementary Hawai'i Language II (4)**

*PreReq: "C" or better in Haw 101*

Continuation of the study of basic structure of Leo Hawai'i or Hawai'i Language. Emphasis on listening, speaking, reading, and writing skills within a Hawai'i cultural context. (4 lec hrs.)

**Haw 110—Evolution of Hawai'i's Languages (3)**

Examines the evolution of Hawai'i's languages through the impacts of global cross-cultural exchanges, relationships, and social development in Hawai'i. (3 lec hrs.)

**Haw 201—Intermediate Hawai'i Language I (4)**

*PreReq: "C" or better in Haw 102*

A continuation of Haw 102 to further develop intermediate level sentence structures. Emphasis on speaking, reading, writing, and listening skills in Leo Hawai'i or Hawai'i Language through a Hawai'i cultural context. (4 lec hrs.)

**Haw 202—Intermediate Hawai'i Language II (4)**

*PreReq: "C" or better in Haw 201*

The final Hawai'i Language course in the series is a continuation of Haw 201 further developing more complex sentence structures, vocabulary, and concepts. Hawai'i Language speaking, writing, reading, and listening skills are heightened. Expanded learning may include transcribing and translating recordings, investigating Hawai'i poetry, Hawai'i newspapers, and stories. (4 lec hrs.)

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## Hawaiian Studies

**HwSt 100—Piko Hawai'i: Connecting to Hawai'i Island (3)**

Piko Hawai'i is central to understanding the cultural significance of our island home. Explore and connect with wahi pana (significant places) of Hawai'i Island. Develop a cultural relationship with its sacred geography and people. (3 lec hrs.)

**HwSt 101—'Aikapu: Hawai'i Culture I (3)**

Examines the cultural traditions of Hawai'i that flourished before the abolition of the kapu system in 1819. Covers foundations of the early society in Hawai'i that evolved with the arrival of various Polynesian voyagers along with their family traditions, distinct customs, and cultural practices. (3 lec hrs.)

- HwSt 102—Maui Hawai'i: Hawaiian Spirituality (3)**  
Investigates aspects of spirituality that connect with the belief and practices of Kanaka Maoli (Native Hawaiians). Examines cultural knowledge and insights linked to perspectives of creation accounts, spirit realms, deities, 'aumakua, kahuna, places of worship, and other facets of maui Hawai'i. (3 lec hrs.)
- HwSt 103—Hana No'eau: Hawaiian Practices (1)**  
An applied approach to Hawaiian traditions and cultural practices. May be repeated for credit provided that a different topic is studied, up to 6 credits. (1 lec hr.)
- HwSt 105—Mea Kanu Hawai'i: Hawaiian Plant Culture (3)**  
Hawaiian cultural uses and functions of Hawai'i's plants. Examines cultural knowledge and insights linked to perspectives of ceremony, clothing, food, medicine, shelter, sustainability and other cultural practices. (3 lec hrs.)
- HwSt 106—Mele Hawai'i: Hawaiian Songs (3)**  
Learn Hawaiian songs to experience the culture of Hawaiian poetry and language. No prior experience necessary. (3 lec hrs.)
- HwSt 107—Hawai'i: Center of the Pacific (3)**  
*PreReq: Eng 21 or ESL 21 or Eng 22 or (ESL 22G and ESL 22W) or placement in Eng 100 or placement in Eng 100E or placement in Eng 102*  
An introduction to the unique aspects of the Native Hawaiian point of view in Hawai'i and the larger Pacific with regards to origins, language, religion, land, art, history, and modern issues. (3 lec hrs.)
- HwSt 130—Hula I: Introduction to Indigenous Leadership Through Hula (3)**  
An introductory course to indigenous leadership through hula. Studies the foundations of hula chants, dances, and protocols through a traditional hālau hula (hula school) setting. This course prepares the learner for public performance. No prior experience necessary. (3 lec hrs.)
- HwSt 131—Hula II: Development of Indigenous Leadership Through Hula (3)**  
*PreReq: "C" or better in HwSt 130; and placement in Eng 20 or placement in ESL 20; and placement in Math 82X*  
A second course developing indigenous leadership through hula 'ōlapa. Studies the foundations of hula chants, dances, and protocols through a traditional hālau hula (hula school) setting, this course prepares the learner for public performance. (3 lec hrs.)
- HwSt 140—Mahi'ai I: Hawaiian Cultivation Practices (3)**  
A mahi'ai practitioner course in Hawai'i cultivation with emphasis on the sustainable cultivation of kalo and related staple foods. Will cover history, lore, and geographically specific methods of mahi'ai. (3 lec hrs.)
- HwSt 141—Mahi'ai II: Hawaiian Cultivation Practices (3)**  
A mahi'ai practitioner course in Hawai'i cultivation with an emphasis on sustainability. Will engage the learner in harvesting kalo and related staple foods and preparing māla'ai (dryland) and lo'i (wetland) patches for replanting. (3 lec hrs.)
- HwSt 150—Lawai'a I: Kū'ula Kai (3)**  
A lawai'a practitioner course in Hawai'i ocean-life resource knowledge. Course will engage the learner in sustainable fishing practices of Hawai'i. (3 lec hrs.)
- HwSt 151—Lawai'a II: Hawaiian Fishing Practices (3)**  
A lawai'a practitioner course focused on loko i'a (fishpond) systems. Will engage the learner in sustainable loko i'a from construction to harvest. (3 lec hrs.)
- HwSt 160—Kahu Ku'una: Hawaiian Stewardship (3)**  
Hawaiian stewardship with an emphasis on sustainability of cultural resources through traditional practices. (3 lec hrs.)
- HwSt 201—'Ai Noa: Hawai'i Culture II (3)**  
*PreReq: "C" or better in Eng 21 or "C" or better in ESL 21 or Eng 22 or (ESL 22G and ESL 22W) or placement in Eng 100 or placement in Eng 100E or placement in Eng 102*  
Significant historical events in Hawai'i from the abolition of the kapu system in 1819 to the present. Examines leadership and issues that transformed Kanaka Maoli (Native Hawaiians) in today's society. (3 lec hrs.)
- HwSt 206—Oli Hawai'i: Hawaiian Chants (3)**  
*PreReq: "C" or better in HwSt 106; and "C" or better in Haw 102 (or higher); and Eng 21 or ESL 21 or Eng 22 or (ESL 22G and ESL 22W) or placement in Eng 100 or placement in Eng 100E or placement in Eng 102*  
An in-depth, experiential study and application of Hawai'i oral arts through poetics, myth, and chant. (3 lec hrs.)
- HwSt 219—Piko Hawai'i II: Experiencing Hawai'i Island (3)**  
*PreReq: Eng 21 or ESL 21 or Eng 22 or (ESL 22G and ESL 22W) or placement in Eng 100 or placement in Eng 100E or placement in Eng 102*  
Explore wahi pana (cultural sites/noted places) and cultural traditions unique to Hawai'i Island. Activities include moderate hiking with most classes in the field. May be repeated for credit provided that a different topic is studied, up to 12 credits. (3 lec hrs.)
- HwSt 230—Hula III: 'Auana (3)**  
*PreReq: "C" or better in HwSt 131; and Eng 20 or ESL 20 or placement in Eng 21 or placement in ESL 21 or placement in Eng 22 or (placement in ESL 22G and placement in ESL 22W); and placement in Math 82X*  
This third course in the hula series introduces the learner to the practice of hula termed "modern hula". Through the traditional hālau hula (hula school) traditions, emphasis is placed on individual and group mastery of hula for public demonstration and articulation of learning. (3 lec hrs.)
- HwSt 231—Hula IV: Hu'elepo (4)**  
*PreReq: "C" or better in HwSt 230; and Eng 21 or ESL 21 or Eng 22 or (ESL 22G and ESL 22W) or placement in Eng 100 or placement in Eng 100E or placement in Eng 102; and placement in Math 82X*  
*Recommended: A valid passport will be required if travel is to a foreign country.*  
The final course in the hula series. Prepares the learner for the debut of their comprehensive learning through a hula exchange with another hula community. (4 lec hrs.)
- HwSt 260—Hō'ike: Hawaiian Studies Capstone (3)**  
*PreReq: Eng 21 or ESL 21 or Eng 22 or (ESL 22G and ESL 22W) or placement in Eng 100 or placement in Eng 100E or placement in Eng 102; and Haw 101 and Haw 102; and HwSt 100, HwSt 103, HwSt 107, and HwSt 270*  
A program capstone course that reinforces skills, knowledge, protocols, and concepts learned in Hawaiian Studies (HwSt) and Language (Haw) courses. Learners will be provided with opportunities to demonstrate their proficiency in these areas. (3 lec hrs.)



**HwSt 270—Hawaiian Mythology (3)**

*PreReq: Eng 21 or ESL 21 or Eng 22 or (ESL 22G and ESL 22W) or placement in Eng 100 or placement in Eng 100E or placement in Eng 102*

A survey course of Hawai'i myth culture. Focus is on the examination of traditional Hawai'i myths and their mythological themes. (3 lec hrs.)

**HwSt 272—Ka'ao: Epic Foundations (3)**

*PreReq: "C" or better in HwSt 270; and "C" or better in Haw 102 (or higher)*

Examines in depth and complexity the indigenous Hawai'i national epics or Ka'ao. Course will delve deeply into Hawai'i mythic images and their impact on Hawai'i poetry, beliefs, practices, philosophy, and world view. (3 lec hrs.)

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## Health

**Hlth 125—Survey of Medical Terminology (1)**

*PreReq: "C" or better in Eng 21 or "C" or better in ESL 21 or placement in Eng 102*

*Recommended: Biol 100*

Builds on knowledge of prefixes, suffixes, and word roots to analyze and build medical terms. It includes definition, spelling, and pronunciation of selected medical words dealing with all human body systems as well as surgical and diagnostic procedures, and disease conditions. Commonly used medical abbreviations and pharmacological terms as well as plural endings are also covered. (1 lec hr.)

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## History

**Hist 120—National Cinemas (3)**

*PreReq: Eng 21 or ESL 21 or Eng 22 or (ESL 22G and ESL 22W) or placement in Eng 100 or placement in Eng 100E or placement in Eng 102*

An in-depth look at classics from cinematic productions of various countries based in a cultural and historical context. Includes a selection of films by a variety of directors and genres from the silent era into the present. Students will consider films that have been affected by culture and films that have affected culture. Any nation that has a broad film history can be showcased. May include but not limited to: American, British, Chinese, Dutch, French, German, Indian, Italian, Japanese, or Soviet/Russian cinema. Country chosen varies by instructor. (3 lec hrs.)

**Hist 151—World History to 1500 (3)**

*PreReq: Eng 21 or ESL 21 or Eng 22 or (ESL 22G and ESL 22W) or placement in Eng 100 or placement in Eng 100E or placement in Eng 102*

A global historical survey focusing on human societies and cross-cultural interactions to 1500 C.E. Students will study historical characteristics of the cultures and customs of the world's peoples including but not limited to: Africa, the Americas, Asia, and Europe and how the history of these regions helped shape the present world. (3 lec hrs.)

**Hist 152—World History Since 1500 (3)**

*PreReq: Eng 21 or ESL 21 or Eng 22 or (ESL 22G and ESL 22W) or placement in Eng 100 or placement in Eng 100E or placement in Eng 102*

A global historical survey focusing on human societies and cross-cultural interactions since 1500 C.E. Students will study historical characteristics of the cultures and customs of the world's peoples including but not limited to: Africa, the Americas, Asia, and Europe and how the history of these regions helped shape the present world. (3 lec hrs.)

**Hist 153—Hawai'i and the World I (3)**

*PreReq: Eng 21 or ESL 21 or Eng 22 or (ESL 22G and ESL 22W) or placement in Eng 100 or placement in Eng 100E or placement in Eng 102*

Survey of history of Hawai'i from Polynesian origins to the reign of Kamehameha the Great. Emphasizes the cultural, political, and social aspects of world history and the Hawaiian influence in shaping those events. (3 lec hrs.)

**Hist 154—Hawai'i and the World II (3)**

*PreReq: Eng 21 or ESL 21 or Eng 22 or (ESL 22G and ESL 22W) or placement in Eng 100 or placement in Eng 100E or placement in Eng 102*

Survey of history of Hawai'i from the reign of Kamehameha the Great. Emphasizes the cultural, political, and social aspects of world history and the Hawaiian influence in shaping those events. (3 lec hrs.)

**Hist 241—Civilization of Asia I (3)**

*PreReq: Eng 21 or ESL 21 or Eng 22 or (ESL 22G and ESL 22W) or placement in Eng 100 or placement in Eng 100E or placement in Eng 102*

*Recommended: Hist 151*

A historical survey focusing on Asian civilization and cross-cultural interactions from ancient times to 1500. Students will study historical characteristics of Asian cultures and customs of the people of Asia including but not limited to China, Japan, India, Korea, and Southeast Asia, and how the history of these regions helped shape the present world. (3 lec hrs.)

**Hist 242—Civilizations of Asia II (3)**

*PreReq: Eng 21 or ESL 21 or Eng 22 or (ESL 22G and ESL 22W) or placement in Eng 100 or placement in Eng 100E or placement in Eng 102*

*Recommended: Hist 151 or Hist 241*

A historical survey focusing on Asian civilization and cross-cultural interactions since 1500. Students will study historical characteristics of Asian cultures of the people of Asia including but not limited to China, Japan, India, Korea, and Southeast Asia, and how the history of these regions helped shape the present world. (3 lec hrs.)

**Hist 274—Writing Personal History (3)**

*PreReq: Hist 151 or Hist 152 or Hist 153 or Hist 154; and Eng 100 or Eng 100E*

A wide-ranging look at the history of the student taking the course; focusing on the study and writing of biography/autobiography, family/genealogy, local/ahupua'a, and how the student personally fits in with the culture and history of the Island of Hawai'i. (3 lec hrs.)

**Hist 284—History of Hawai'i (3)**

*PreReq: Eng 21 or ESL 21 or Eng 22 or (ESL 22G and ESL 22W) or placement in Eng 100 or placement in Eng 100E or placement in Eng 102*

*Recommended: Hist 153 and/or Hist 154*

A survey course in the history of the Hawaiian Islands from Polynesian origins to contemporary multi-cultural society. This course traces the impact of major events and historical figures upon Hawaiian society and also considers the Native Hawaiian response to these changes. (3 lec hrs.)

**Hist 288—Survey of the Pacific Islands History (3)**  
*PreReq: Eng 21 or ESL 21 or Eng 22 or (ESL 22G and ESL 22W) or placement in Eng 100 or placement in Eng 100E or placement in Eng 102; and Hist 152*  
*Recommended: Hist 153 or Hist 154 or Hist 284 or HwSt 101 or HwSt 107*  
Inclusive history of Pacific Islands from the earliest settlements nearly 5,000 years ago to the present with emphasis on island cultures, interaction with the West and East, colonization, modern development, and contemporary issues. Students will explore how various waves of migration over the centuries shaped and changed Pacific Island cultures in the present. (3 lec hrs.)

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## Hospitality and Tourism

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**HosT 100—Career and Customer Service Skills (3)**  
Focuses on the strategies and skills related to career success and customer satisfaction in the Hospitality and Tourism industry. (3 lec hrs.)

**HosT 101—Introduction to Hospitality and Tourism (3)**  
Provides an overview of the travel industry and related major business components. Analysis of links between hotel, food, transportation, recreation, and other industries comprising tourism. (3 lec hrs.)

**HosT 150—Housekeeping Operations (3)**  
Studies the professional management of housekeeping operations including the planning, organizing, staffing, and control techniques required to assure quality service. (3 lec hrs.)

**HosT 152—Front Desk Operations (3)**  
*PreReq: Placement in Eng 20 or placement in ESL 20*  
Study of philosophy, theory, equipment, and current operating procedures of a hotel front office, concentrating on development of human relation skills necessary for effective guest and employee relations and the technical skills necessary to operate a manual and computerized front office operation. (3 lec hrs.)

**HosT 154—Food and Beverage Operations (3)**  
Introduces students to the principles of marketing, menu planning, service styles, nutrition, sanitation and safety, purchasing, and control systems as they apply to food and beverage management in an operational setting. Includes the study and practical application of food and beverage management techniques to effectively manage resources: money, personnel, food and beverage products, and time. (3 lec hrs.)

**HosT 258—Hospitality Marketing (3)**  
*CoReq: HosT 101 (or prior completion)*  
A study of modern marketing techniques and concepts for the Hospitality industry, including human factors, consumer demand, and planning. (3 lec hrs.)

**HosT 260—Hospitality Law (3)**  
*PreReq: "C" or better in HosT 101; and "C" or better in Eng 22 or ("C" or better in ESL 22G and "C" or better in ESL 22W) or placement in Eng 100 or placement in Eng 100E*  
Course will outline the different points of law as it relates to the Hospitality Industry. It alerts operator of hotels and restaurants to a number of potential legal problems and pitfalls. (3 lec hrs.)

**HosT 261—Events Management (3)**  
*CoReq: HosT 101 (or prior completion)*  
Prepares students to plan and administer successful functions, special events, meetings and conventions. Students explore topics such as exhibitions, convention programming, festivals, venue selection, social events, catering needs, sustainability, technology, careers and staffing, event marketing, design and decor, and current trends. (3 lec hrs.)

**HosT 265—Tourism and Destination Planning (3)**  
*CoReq: HosT 101 (or prior completion)*  
Exposes students to planning, developing, implementing, and managing tourism within a destination. Presents tourism development as a process with its own organizational structures and its own responses to the economic cycle of supply and demand. Students study various destinations in order to analyze and identify the components of successful tourism programs. (3 lec hrs.)

**HosT 280—Hospitality Management (3)**  
*PreReq: "C" or better in HosT 101 or "C" or better in Culn 111*  
*Recommended: Eng 22 or (ESL 22G and ESL 22W) or placement in Eng 100 or placement in Eng 100E*  
Examines the key principles and processes of management in the hospitality industry that are essential for organizational effectiveness. Focuses on leadership skill building, decision-making processes, and human relations management. (3 lec hrs.)

**HosT 293V—Hospitality Internship (1-3)**  
*PreReq: Consent of program faculty*  
Provides students with the opportunity to earn credit through related on-the-job work experience. Requires work experience, observation, and reporting on the interaction between entry level workers and their supervisors in a hospitality industry environment in housekeeping, front desk, facilities maintenance, food service, purchasing, human resources, or guest services. Students will be evaluated by supervisory employees in the industry based on performance standards and learning goals. Seminar and field work hours will be required. (variable hours)

**HosT 295—Hospitality Capstone (3)**  
*PreReq: "C" or better in HosT 101, "C" or better in HosT 258, "C" or better in HosT 265, and "C" or better in HosT 290*  
*Recommended: Proficiency in Microsoft Word, Excel, and researching online*  
Integrates all the course work required for the HOST degree program. Explores a work-related management issue or operational problem in the hospitality industry. Analyzes, researches, and develops an in-depth strategy to resolve the issue or problem. (3 lec hrs.)

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## Human Development

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**HD 234—Social Gerontology (3)**  
*PreReq: Eng 21 or ESL 21 or placement in Eng 102; and Eng 22 or (ESL 22G and ESL 22W) or placement in Eng 100 or placement in Eng 100E*  
*Recommended: HDFS 230 or Psy 100*  
The emotional, physical, and social processes of aging. (3 lec hrs.)

## Human Development and Family Studies

### HDFS 230—Human Development (3)

*PreReq: Eng 21 or ESL 21 or placement in Eng 102; and Eng 22 or (ESL 22G and ESL 22W) or placement in Eng 100 or placement in Eng 100E*

Concepts, issues, theories of human growth and development from conception to death. Focus on the interrelation of physical cognitive, and psychosocial development of the individual throughout the life span. (3 lec hrs.)

## Human Services

### HSer 101—Community Health Worker Fundamentals (3)

*PreReq: "C" or better in Eng 21 or "C" or better in ESL 21 or "C" or better in Eng 22 or ("C" or better in ESL 22G and "C" or better in ESL 22W) or placement in Eng 100 or placement in Eng 100E or placement in Eng 102*

Identifies the roles Community Health Workers play in Hawai'i and the broader public health system. Introduces the attitudes, skills and knowledge of the profession. (3 lec hrs.)

### HSer 110—Introduction to Human Services (3)

Designed to provide students with an overview of the human services field, including history and perspectives on strategies of intervention and prevention. Emphasizes self-awareness, and examines the attitudes, knowledge, and skills necessary for a career in Human Services. Provides a diverse group of students with a basic understanding of cultural awareness through place based pedagogy. Guest speakers and visits to various agencies in the local community give students insight into the Human Service profession. (3 lec hrs.)

### HSer 130—Introduction to Youth Practitioner (3)

Cross-listed as AJ 130 and Subs 130

*PreReq: Eng 20 or ESL 20 or placement in Eng 22 or (placement in ESL 22G and placement in ESL 22W)*

*Recommended: AJ 210 or HSer 110*

Introduces the core skills needed by youth practitioners. Focuses on basic communication skills, growth and development of adolescents, family and cultures and their roles in development, and youth with special needs. Develops teamwork and basic workforce skills. Also useful for in-service administration of justice, human services and substance abuse counseling professionals seeking to upgrade their knowledge and skills in community-based prevention programs for youth and families. Students who successfully complete AJ 130, or HSer 130, or Subs 130 with a "C" grade or better are eligible to receive 45 hours of prevention studies education from the State of Hawai'i Department of Health - Alcohol and Drug Abuse Division towards Prevention Specialist Certification. (3 lec hrs.)

### HSer 131—Ethics in Public Services (1)

Cross-listed as AJ 131 and Subs 131

*PreReq: Eng 21 or ESL 21 or placement in Eng 102; and Eng 22 or (ESL 22G and ESL 22W) or placement in Eng 100 or placement in Eng 100E*

Professional codes of ethics, its legal perimeters, and the concepts of values, boundaries, morals, and confidentiality within public services professions of criminal justice, human services, and substance abuse counseling will be explored, analyzed, and discussed. (1 lec hr.)

### HSer 135—Health Promotion and Disease Prevention (3)

Explores the roles Community Health Workers play in health promotion and disease prevention. Introduces the major causes of premature mortality and morbidity, behavioral and environmental contributions to illness and injury, and strategies for promoting health, wellness, and risk reduction. Provides opportunities to practice developing and teaching health promotion/disease prevention classes. (3 lec hrs.)

### HSer 140—Individual Counseling (3)

*PreReq: "C" or better in Eng 21 or "C" or better in ESL 21 or Eng 22 or (ESL 22G and ESL 22W) or placement in Eng 100 or placement in Eng 100E or placement in Eng 102*

*CoReq: HSer 101 or Hser 110 (or prior completion of either)*

Designed to upgrade the understanding and counseling skills of people interested in the helping professions by study and evaluated practice in: establishing a trust relationship; interviewing; empathetic listening; values clarification; and problem solving. (3 lec hrs.)

### HSer 141—Introduction to Ho'oponopono (3)

Cross-listed as Subs 141

This is an experiential course that focuses on counseling and resolving conflict among families, individuals and other groups using Hawaiian cultural methods of Ho'oponopono (family) and Ho'oku'u Ka Hewa (individuals and other groups). Students will examine Hawaiian historical foundations, spiritual principles, values and beliefs, protocol and rituals; ancient and modern processes; and levels of involvement and responsibility among participants. (3 lec hrs.)

### HSer 192—Seminar and Fieldwork I (3)

*PreReq: "C" or better in HSer 101 or "C" or better in HSer 110*

Supervised experience in human services providing counseling, practical support, education, information and/or care-giving in community agencies in the local community. (3 lec hrs.)

### HSer 245—Group Counseling (3)

Cross-listed as Subs 245

*PreReq: Eng 21 or ESL 21 or Eng 22 or (ESL 22G and ESL 22W) or placement in Eng 100 or placement in Eng 100E or placement in Eng 102*

Provides theoretical and experiential training in facilitating groups. Examines the process of facilitation and group membership. Exploring task facilitation, psycho-educational counseling, and psychotherapy groups. Addresses ethical issues and self-care of the group facilitator. (3 lec hrs.)

### HSer 248—Case Management (3)

Cross-listed as Subs 248

*PreReq: HSer 110 or Subs 268; and Eng 21 or ESL 21 or placement in Eng 102; and Eng 22 or (ESL 22G and ESL 22W) or placement in Eng 100 or placement in Eng 100E*

Provides a systems-based orientation to the development of knowledge and skills needed to become a case manager in health and human services. Incorporates an ethical, culturally appropriate, strength-based and client-centered approach. Skill development includes intake, assessment, service planning, care coordination, discharge planning, referral, advocacy, and documentation. (3 lec hrs.)

**HSer 256—Dynamics of Family Violence and Sexual Assault (3)**

Cross-listed as AJ 256 and WGSS 256

*PreReq:* Eng 21 or ESL 21 or placement in Eng 102; and Eng 22 or (ESL 22G and ESL 22W) or placement in Eng 100 or placement in Eng 100E

Promotes knowledge, skills, sensitivity, and self-care practices for engaging individuals and families affected by interpersonal violence. Examines historical, societal, and legal responses and resources. The content focuses on physical, emotional, and sexual victimization of vulnerable populations like children, elders and LGBTQ+. Addresses dating violence, human trafficking, and intimate partner violence. Examines current research on social, economic, cultural, family, and individual risk factors, perpetrator dynamics, effects of violence on victims and survivors, and effective intervention and prevention strategies. Learners have an opportunity to explore their own values and feelings in relation to difficult subject matter. (3 lec hrs.)

**HSer 262—Adolescent Counseling (3)**

Cross-listed as Subs 262

*PreReq:* HSer 110 or Subs 268; and Eng 21 or ESL 21 or placement in Eng 102; and Eng 22 or (ESL 22G and ESL 22W) or placement in Eng 100 or placement in Eng 100E

Focus on interpersonal skills needed in counseling adolescents (ages 12-18 years). Topics include developing effective substance abuse prevention and treatment approaches; screening and assessment; case management; individual, group, and family therapy; treatment in the juvenile justice system; and legal and ethical issues. (3 lec hrs.)

**HSer 292—Seminar and Fieldwork II (3)**

*PreReq:* ("C" or better in HSer 101 or "C" or better in HSer 110) and "C" or better in HSer 192

A continuation of HSer 192 in another agency setting. Supervised experience in human services providing counseling, practical support, education, information and/or care-giving in community agencies in the local community. (3 lec hrs.)

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**Humanities**

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**Hum 100—Introduction to the Arts (3)**

*PreReq:* Eng 20 or ESL 20 or placement in Eng 22 or (placement in ESL 22G and placement in ESL 22W); and Eng 21 or ESL 21 or placement in Eng 102

An introduction to the arts through the study of aesthetics, creativity, values, and meaning through the underlying elements and principles inherent in the visual arts, music, dance, theatre, and all artistic endeavors. (3 lec hrs.)

**Hum 160—Modes of Thought (3)**

Cross-listed as SSci 160

*Recommended:* Eng 21 or ESL 21 or Eng 22

Literature-based Western tradition survey. Emphasis on intellectual history and the approaches to issues used in the humanities and social sciences. Values definition and clarification. (3 lec hrs.)

**Hum 275—Psychology and the Expressive Arts (3)**

*PreReq:* Psy 100 or Psy 170 or Hum 100

The theory and practice of studying the personality through the visual arts, writing arts, dance, music, and drama towards a therapeutic end for the individual utilizing group dynamics. May be repeated for credit, up to 6 credits. (3 lec hrs.)

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**Industrial Education, Building and Construction**

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**IEdB 20—Careers in Building and Construction (3)**

*Recommended:* Eng 20 or ESL 20 or placement in Eng 21 or placement in ESL 21; and computer literacy

Introduction to construction/construction careers using the Contextual Model. Students will be asked to think and solve problems related to construction projects, from origination of an idea through actual completion of the construction process. Students are required to sequence the project; identify by career the people involved with the project; and identify permits, licenses, and organizations with jurisdiction over various aspects of the project including relevant city, county, state and national codes and regulations that apply to the project. Introduction to safety, common materials, hand and limited power tool application, current construction techniques, and blueprint reading. (6 lec/lab hrs.)

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**Information and Computer Science**

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**ICS 100—Computing Literacy and Applications (3)**

*PreReq:* Eng 20 or ESL 20 or placement in Eng 21 or placement in ESL 21

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 lec hrs.)

**ICS 101—Digital Tools for the Information World (3)**

Fundamental information technology concepts and computer terminology, productivity software for problem solving, computer technology trends, and impact on individuals and society. Emphasizes the utilization of operating systems and the production of professional documents, spreadsheets, presentations, databases, and web pages. (3 lec hrs.)

**ICS 111—Introduction to Computer Science I (3)**

*PreReq:* "C" or better in ICS 101

Offers an overview of the fundamentals of computer science emphasizing problem solving, algorithm development, implementation, and debugging/testing using an object-oriented programming language. (3 lec hrs.)

**ICS 141—Discrete Mathematics for Computer Science I (3)**

*PreReq:* "C" or better in ICS 111; and Math 103 or higher

Includes logic, sets, functions, matrices, algorithmic concepts, mathematical reasoning, recursion, counting techniques, and probability theory. (3 lec hrs.)

**ICS 200—Web Technology (3)**

*PreReq:* "C" or better in ICS 101

Introduces web page authoring. Creates client-side web pages using web authoring language and style sheets. Uses graphical design elements, validation, browser compatibility, and accessibility. Uses scripting language to add dynamic elements to web pages, client-side scripting, regular expressions, event handling, input validation, selection, repetition, and parameter passing. (3 lec hrs.)

**ICS 211—Introduction to Computer Science II (3)**

*PreReq:* "C" or better in ICS 111

Reinforces and strengthens problem-solving skills using abstract data types and introduces software development practices. Emphasizes the use of searching and sorting algorithms and their complexity, recursion, object-oriented programming, and data structures. (3 lec hrs.)

**ICS 281—Ethical Hacking (3)**

*PreReq: "C" or better in ITS 124 and "C" or better ITS 221*

Covers the basic ethical hacking techniques also known as white hat hacking. Stresses the moral and legal issues about hacking and how these techniques can be used to defend against attacks as well as to perform authorized system security evaluation testing. (3 lec hrs.)

**ICS 282—Computer Forensics (3)**

*PreReq: "C" or better in ITS 124 and "C" or better ITS 221*

Covers the basic computer forensics including operating system diagnostics, the use of forensic toolkits to examine and validate computer activity, and techniques for the proper collection, examination, and preservation of forensic evidence. (3 lec hrs.)

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**Information Technology**

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**ITS 118—Visual Programming for Business Applications (3)**

Deleted.

**ITS 121—Computing Topics (3)**

Deleted.

**ITS 124—Introduction to Networking (3)**

*PreReq: "C" or better in ICS 101; and "C" or better in ITS 144*

Provides the student with the knowledge and skills to manage, maintain, troubleshoot, install, operate, and configure basic network infrastructure, as well as to describe networking technologies, basic design principles, and adhere to wiring standards and use testing tools. Also introduces the student to network security concepts. (3 lec hrs.)

**ITS 129—Introduction to Databases (3)**

*PreReq: "C" or better in ICS 111*

Covers the fundamental concepts in database technology, including storage structures, access methods, recovery, concurrency, and integrity. The relational model and its implementation will be covered in depth together with an overview of SQL and its role in application development. The course will also present an overview of database administration, including modeling and design activities. A substantial part of the course involves the development of an understanding of database concepts. (3 lec hrs.)

**ITS 144—Computer Hardware Support (3)**

*CoReq: ICS 101 (or prior completion)*

A first course in computer support intended to provide the skills needed to prepare the student to support personal computer hardware. The course prepares students to address the most common PC hardware concerns. It includes both concepts and hands-on real-world experience. (3 lec hrs.)

**ITS 221—Introduction to Computer Security (3)**

*PreReq: "C" or better in ICS 101*

*CoReq: ITS 124 (or prior completion)*

Examines the essentials of computer security, including risk management, the use of encryption, activity monitoring, intrusion detection, and the creation and implementation of security policies and procedures to aid in security administration. (3 lec hrs.)

**ITS 287—IT Internship Preparation (2)**

*PreReq: "C" or better in ICS 141 and "C" or better in ICS 211; and "C" or better in ITS 129; and Eng 100 or Eng 100E; and Sp 151*

*CoReq: ITS 288 (or prior completion)*

Provides students with information about how to apply their IT knowledge into the business environment. Includes resume writing, job preparation, interview skills, and employer expectations. Summary of IT knowledge for application in the workplace. (2 lec hrs.)

**ITS 288—IT Program Internship (1)**

*PreReq: "C" or better in ICS 141 and "C" or better in ICS 211; and "C" or better in ITS 129; and Eng 100 or Eng 100E; and Sp 151*

*CoReq: ITS 287 (or prior completion)*

Cooperative internship integrating classroom learning with supervised structured and unstructured real world work experience with local businesses and agencies. Offers an opportunity to enhance workplace soft skills as well as technical skills. Assignments determined by students' interests, project content, and availability. (8 prac hrs.)

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**Interdisciplinary Studies**

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**IS 100V—Foundations in Leadership (1-3)**

Introduces students to concepts, models, and practice of leadership that are effective in civic, community, and political organizations. Examines the purpose and structures of various types of organizations and reviews the various kinds of leadership styles. Also discusses strategies that match these organizations using case studies, simulations, and real life applications. Aims to help students develop leadership skills to better understand their organization's purpose, communication practices, and ways to mobilize effective action. (variable hours)

**IS 101—Building Bridges to Self, College, and the Community (3)**

*Recommended: Placement in Eng 21 or placement in ESL 21*

This course builds the academic, technological, social, and personal skills needed to succeed in college and the work world, including goal setting and teamwork. Self reflection and community engagement support the development of problem solving, critical thinking, stress management, and global understanding skills. Course builds a foundation for any first year student to succeed in the college environment as well as explore applications to social science disciplines including psychology, sociology and political science which underpin personal and social change. (3 lec hrs.)

**IS 101L—Building Bridges College Technology Lab (1)**

Teaches students how to employ computer technology to perform academic and professional tasks. (2 lec/lab hrs.)

**IS 105—Career/Life Exploration and Planning (3)**

*PreReq: Eng 20 or ESL 20 or placement in Eng 21 or placement in ESL 21*

Teaches practical life skills through activities that will empower students to create greater success in college, and in the workplace. Students will develop knowledge and awareness of the diverse cultural influences - Hawaiian, community, college, classroom, and workplace - and the relationship between these cultures. Within a cultural framework, students explore and identify possible careers that match their strengths, values, interests, and skills. Introduces students to job search resources, which include learning to conduct an effective job search, writing a winning resume and cover letter, and preparing for job interviews. Also focuses on soft skill acquisition; career and life planning through goal development; communication and interpersonal skills; time, financial, and stress management; problem solving; making wise choices; and self-motivation. (3 lec hrs.)

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## Japanese

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### Jpn 101—Elementary Japanese I (4)

Formerly Jpns 101

Introductory Japanese language course, emphasizing reading, writing, speaking, and listening. (4 lec hrs.)

### Jpn 102—Elementary Japanese II (4)

Formerly Jpns 102

*PreReq:* Jpn 101

Continuation of Jpn 101. The study of the basic structure of the Japanese language with emphasis on listening, speaking, reading and writing skills. (4 lec hrs.)

### Jpn 121—Elementary Japanese Conversation I (3)

Formerly Jpns 121

Development of conversational skills—listening, comprehension, and speaking—for persons in business or occupations dealing with Japanese-speaking clientele. (3 lec hrs.)

### Jpn 122—Elementary Japanese Conversation II (3)

Formerly Jpns 122

*PreReq:* Jpn 121

An intermediate course with emphasis on the creative skills of conversation—adding some reading and writing of the language—for persons in business or occupations dealing with Japanese clientele. (3 lec hrs.)

### Jpns 101—Elementary Japanese I (4)

Deleted (see Jpn 101)

### Jpns 102—Elementary Japanese II (4)

Deleted (see Jpn 102)

### Jpns 121—Elementary Japanese Conversation I (3)

Deleted (see Jpn 121)

### Jpns 122—Elementary Japanese Conversation II (3)

Deleted (see Jpn 122)

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## Learning Skills

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### LSK 30—College Study Skills (3)

Designed to give students an opportunity to learn and practice fundamental learning skills necessary for success in college. This course will build a strong foundation of study skills, including reading skills, memory strategies, listening skills, writing, note taking, and speaking skills, as well as time management and goal setting. (3 lec hrs.)

### LSK 102—College Success Strategies (1)

*PreReq:* Eng 20 or ESL 20 or placement in Eng 21 or placement in ESL 21 or placement in Eng 22 or (placement in ESL 22G and placement in ESL 22W)

Introduces new students to useful strategies and techniques for achieving success in college. Topics include: motivation and attitudes for learning, note taking skills, test taking skills, time and money management techniques, memory enhancement strategies, learning styles and use of college and community resources. (1 lec hr.)

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## Linguistics

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### Ling 102—Introduction to the Study of Language (3)

*PreReq:* “C” or better in Eng 21 or “C” or better in ESL 21 or placement in Eng 102; and “C” or better in Eng 22 or (“C” or better in ESL 22G and “C” or better in ESL 22W) or placement in Eng 100 or placement in Eng 100E

A broad introduction to the nature and workings of language through linguistic analysis: an overview of phonology (sound system), morphology (word structure), syntax (sentence structure), semantics (meaning), ethnolinguistics, and historical-comparative linguistics. (3 lec hrs.)

### Ling 121—Introduction to Language (3)

Cross-listed as Anth 121

*PreReq:* “C” or better in Eng 22 or (“C” or better in ESL 22G and “C” or better in ESL 22W) or placement in Eng 100 or placement in Eng 100E

An introduction to the study of language from an anthropological perspective. Broad topics include ethnolinguistics (language and culture), sociolinguistics (language and society), psycholinguistics (language and cognition), and core subfields in linguistics; phonology (sound system), morphology (word structure), and syntax (sentence structure). More emphasis will be given to anthropological methods and cultural concepts in Anth/Ling 121 than in Ling 102, where linguistic approaches are emphasized. (3 lec hrs.)

### Ling 235—Intermediate Linguistic Analysis: Regional Survey of Austronesian Languages (3)

Cross-listed as Anth 235

*PreReq:* “C” or better in Anth 121 or “C” or better in Ling 102 or “C” or better in Ling 121; and “C” or better in Eng 100 or “C” or better in Eng 100E; and “C” or better in Eng 102

Building on skills acquired in Linguistics 102 or Ling/Anth 121, this course emphasizes intermediate phonological, morphological, syntactic, and historical-comparative analyses of language; it typologically surveys the Austronesian (AN) language family (including several Polynesian languages), focusing on its geographical distribution, major languages, the branching of its family tree, and its linguistic/cultural diversity. Data from non-AN Southeast Asian and Indo-European languages will be included to introduce key concepts and provide contrast. (3 lec hrs.)

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## Machine, Welding, and Industrial Mechanics

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### MWIM 142—Introduction to Machine and Welding (8)

*CoReq:* MWIM 145

Introductory theory and instruction in the areas of oxygen-acetylene and welding, machine technology, measurement and layout, hand tools, bench work, basic machine tools and plasma cutting, proper equipment, hand tools, and portable and stationary equipment. Also covers tools and procedures used in making precise layouts. (16 lec/lab hrs.)

### MWIM 145—Introduction to Arc Welding (4)

*CoReq:* MWIM 142

A theory and practice course in shielded metal arc welding (SMAW) safety and set-up; electrical principles and terminology; basic manipulative techniques in flat and horizontal welding; common SMAW power sources, electrodes identification, selections, application, and manipulative techniques; basic materials, their identification, and weldability; and an introduction to the evaluation of welds and shop tests to determine weld quality, common joints, and fit-up in structure steel plate. (8 lec/lab hrs.)

**MWIM 152—Sheet Metal Machining (8)**

*PreReq: MWIM 142 and MWIM 145*

*CoReq: MWIM 155*

A beginning course in machine technology that covers occupational outlook, job descriptions for a machinist, and other careers in metal related trades. Introduction to machine shop operations, common machine tools, engine lathe, and general shop and personal safety. An introductory course in linear measurement; application of mathematical calculations on practical shop projects using common measuring and layout tools; direct measurement and simple layout using basic geometric construction and principles of squaring; blanking and procedures for development of simple patterns with allowances for common edges and seams; use of common three-factor equation and application on cylindrical objects and rectangular objects with edges and seams; and emphasis on accuracy in linear and angular measurement, squaring, and direct measurement layout. (16 lec/lab hrs.)

**MWIM 155—Intermediate Welding and Qualification Procedures (4)**

*PreReq: MWIM 145*

*CoReq: MWIM 152*

A theory and practical course in shielded metal arc welding (SMAW), joint designs, preparation, and fit-up; mild steel electrodes and low hydrogen-type electrode applications and weld techniques; development of manipulative skills on common welding joints with mid-steel and low hydrogen-type electrodes in horizontal, vertical, and overhead positions; emphasis on proficiency in vertical up-welding with mild steel and low hydrogen-type electrodes; and preparation for the American Welding Society's structural welding limited certification in the vertical position. (8 lec/lab hrs.)

**MWIM 162—Lathe Facing and Knurling (4)**

*PreReq: MWIM 152 and MWIM 155*

*CoReq: MWIM 165*

A course on the use of the turning machine Lathe. Topics covered are methods of mounting work, cutting tool shapes and preparation, turning, facing, knurling, speeds, and feeds. (8 lec/lab hrs.)

**MWIM 165—Advanced Welding (8)**

*CoReq: MWIM 162*

Manual and machine processes in sheet metal fabrication; direct measurement layout and pattern development including radial line development; procedures for layout, blanking, cutting, forming, use of mechanical joints, fasteners, and soldering; sheet metal fabrication of symmetrical and uniform tapering fitting; and radial line development of patterns and sheet metal processes. Theory and practice course in shielded metal arc welding (SMAW); joint designs, preparation, and fit-up; mild steel electrodes and low hydrogen-type electrode applications and weld techniques; development of manipulative skill on common welding joints with mild steel and low hydrogen-type electrodes in the horizontal, vertical, and overhead positions; and preparation for the American Welding Society's structural welding limited certification. (16 lec/lab hrs.)

**MWIM 172—Introduction to CNC Milling (4)**

*PreReq: MWIM 162 and MWIM 165*

*CoReq: MWIM 175*

An introduction to the common milling operations including the nomenclature, functions, lubrication, maintenance, setup, and safety in milling operations. Basic machining operations commonly done with the vertical milling machine include the common work holding devices, milling cutters, and tool holding devices. Also an introduction to Computer Numerical Control (CNC), use of Cartesian coordinates, absolute and incremental measurements, datum points, and applications of the Digital Read Out (DRO). Emphasis on the use of the CNC function in the shop floor mode and the setup and machining of programmed functions. (8 lec/lab hrs.)

**MWIM 175—Special Process Welding & Rigging (8)**

*CoReq: MWIM 172*

Special processes of pipe joint preparation and pattern development for basic fittings for heating and air-conditioning type work; all-position electric pipe welding; aluminum and stainless steel welding with Tungsten Inert Gas (TIG) and Metallic Inert Gas (MIG); advanced arc welding techniques of vertical and overhead weld positions for the guided Tensile Bend Weld Tester Machine; test preparation for Welding Certification American Welding Society's D1.1-68 Structural Codes; rigging procedures and safety; types of rigging, common materials, and methods; basic characteristics: size, weight, and center of gravity; and use of rigging sling type and hitches: vertical, bridle, basket, and chokers. (16 lec/lab hrs.)

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**Management**

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**Mgt 124—Human Resource Management (3)**

*PreReq: Eng 21 or ESL 21 or Eng 22 or (ESL 22G and ESL 22W) or placement in Eng 100 or placement in Eng 100E or placement in Eng 102*

Introduction to principles, organizations, and techniques of personnel administration including procurement and placement, improvement of performance, management and labor relations, remuneration and security, and other human resource functions. (3 lec hrs.)

**Mgt 234—Cross-Cultural Management (3)**

*PreReq: "C" or better in Eng 21 or "C" or better in ESL 21 or "C" or better in Eng 22 or ("C" or better in ESL 22G and "C" or better in ESL 22W) or placement in Eng 100 or placement in Eng 100E or placement in Eng 102; and "C" or better in HwSt 201; and "C" or better in Mgt 124* Provides students with an in-depth look at how cultures around the world implement and respond to a variety of managerial practices. Utilizing research and case studies, students are taught the cultural specifics necessary to be able to successfully manage in a variety of diverse locations (with special emphasis placed on the people and culture of Hawai'i). (3 lec hrs.)

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**Marketing**

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**Mkt 120—Principles of Marketing (3)**

*PreReq: Eng 21 or ESL 21 or Eng 22 or (ESL 22G and ESL 22W) or placement in Eng 100 or placement in Eng 100E or placement in Eng 102*

Introduction to marketing concepts and the application to the process of marketing products, services, and ideas to provide value and benefits to both for-profit and non-profit organizations. Students will develop an understanding of the marketing process, analyze marketing opportunities, and develop strategies to fulfill the needs of target markets. (3 lec hrs.)

**Mkt 121—Marketing Topics (3)**

Deleted.

**Mkt 130—Principles of Retailing (3)**

Deleted.

**Mkt 151—Principles of Customer Service (3)**

Deleted.

**Mkt 157—Principles of Web Design I (3)**

Deleted.

**Mkt 185—Principles of E-Marketing (3)**

Deleted.

**Mkt 193V—Cooperative Vocational Education (1-12)***PreReq: Consent of program faculty*

A work study course providing opportunities to reinforce skills learned in sales and marketing courses by applying them in an actual job situation. (variable hours)

**Mkt 233—International and Technological Brand Integration (3)**

*PreReq: "C" or better in Eng 21 or "C" or better in ESL 21 or "C" or better in Eng 22 or ("C" or better in ESL 22G and "C" or better in ESL 22W) or placement in Eng 100 or placement in Eng 100E or placement in Eng 102; and "C" or better in HwSt 201; and "C" or better in Mkt 120; and "C" or better in CM 120*

Provides students with the ability to create and modify branding strategies and associated advertising campaigns that work across a variety of platforms (websites, apps, print, broadcast media, etc.) and cultures. Case studies are utilized to gain an in-depth understanding of the branding and advertising methods that work in a variety of locations around the world with emphasis placed on the people and culture of Hawai'i. (3 lec hrs.)

**Mkt 292—Integrated Marketing Projects (3)**

Deleted.

## Mathematics

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**Math 55—Technical Mathematics II (1-3)***PreReq: QM 120T*

Advanced topics in technical mathematics including applications of algebra, geometry, and/or numerical trigonometry to shop problems. May be repeated for credit, provided that a different topic is studied. (variable hours)

**Math 75X—Introduction to Mathematical Reasoning (4)**

*Recommended: Pre-Algebra review with EdReady, Khan Academy, or equivalent text*

Prepares students for college level courses that do not require algebraic foundations. Course topics include operations on real numbers, ratio and percent, fractions and decimals, estimation, unit conversion, dimensional analysis, proportional reasoning, data interpretation, graphs, basic algebra, solving linear equations, working with formulas, geometry and measurement, basic probability and special emphasis on pattern recognition, problem solving, critical thinking, and real world problems. (4 lec hrs.)

**Math 78C—College Math Companion (1)***CoReq: Math 100 or Math 115*

*Recommended: Arithmetic and Pre-Algebra review with EdReady, Khan Academy, or equivalent text*

Companion lab for Math 100 or Math 115. Includes review of basic math, algebra, and calculator skills needed for success in college-level mathematics. Additionally, this course provides embedded math tutoring and college success training such as developing a growth mindset, effective study strategies, and managing math anxiety. (3 lab hrs.)

**Math 82X—Expanded Algebraic Foundations (5)***PreReq: Placement in Math 82X*

Topics include: operations with real numbers, linear equations and inequalities in one variable, polynomials, factoring, rational numbers and rational expressions, linear equations and inequalities in two variables, linear systems of equations and inequalities in two variables, roots and radicals, and quadratic equations. (5 lec hrs.)

**Math 100—Survey of Mathematics (3)**

*PreReq: "C" or better in Math 75X or placement in Math 100; and "C" or better in Eng 21 or "C" or better in ESL 21 or "C" or better in Eng 22 or ("C" or better in ESL 22G and "C" or better in ESL 22W) or placement in Eng 100 or placement in Eng 100E or placement in Eng 102*

Designed to acquaint non-science majors with mathematical reasoning and problem solving, and to expose students to the power and utility of mathematics through its relationship to the world. Foundation topics covered are problem solving, elementary logic, and numeration systems; additional topics may include one or more of the following areas: algebra, business math, counting theory, geometry, probability, statistics, and voting methods. Proofs and historical perspectives are included as appropriate. (3 lec hrs.)

### Which Math Course Should I Take?

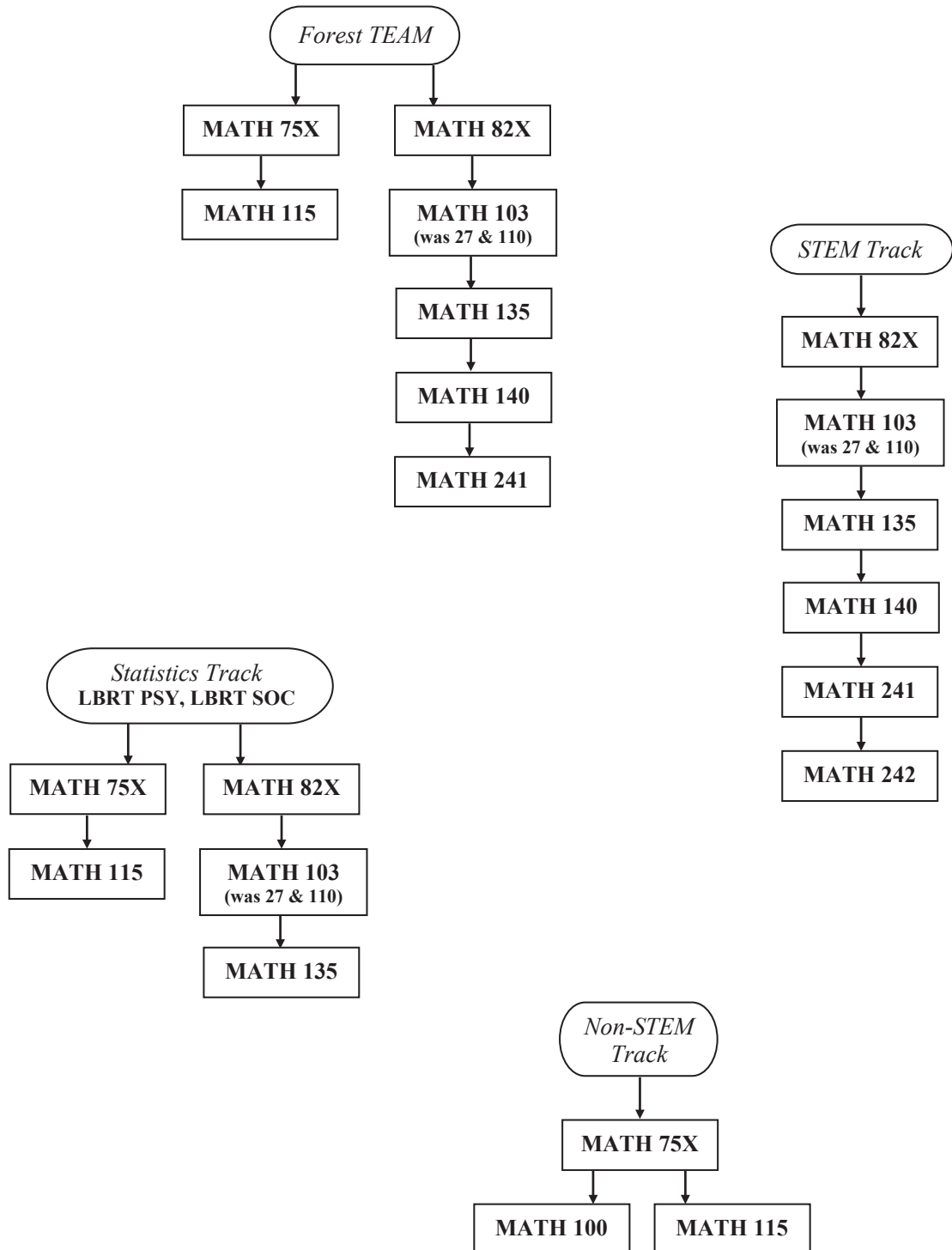
Mathematics (Math) courses cover two different areas: Vocational and Liberal Arts. If you have any questions, see an advisor or counselor.

Placement is required for all Math courses. Other Hawai'i CC courses may have Math prerequisites too, so closely check the prerequisites for each course to see what must be taken *before* enrolling in that course. For example, BioC 141 requires Math 82X or placement in Math 100; and Eng 21 or ESL 21 or placement in Eng 102.

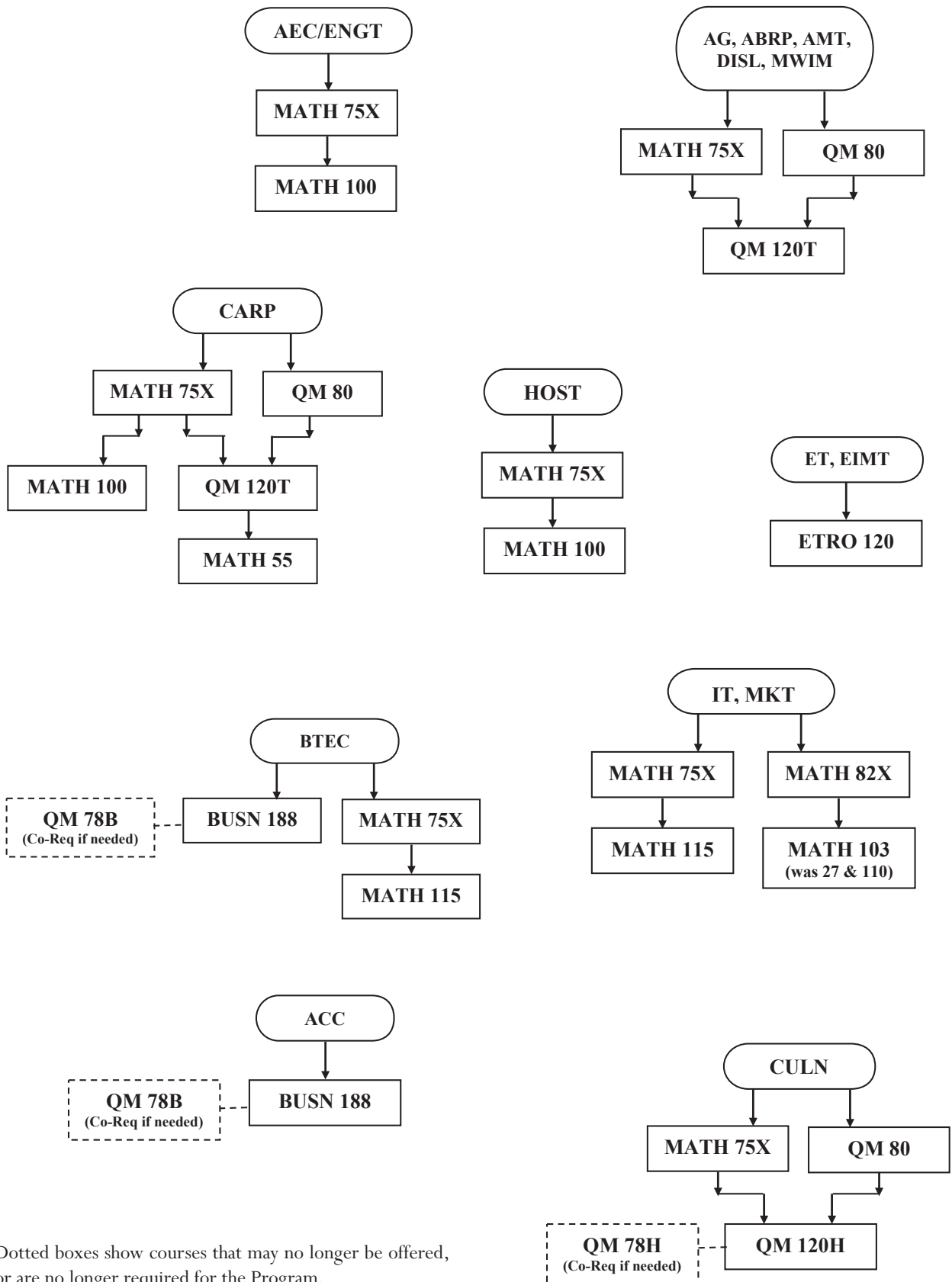
Also, carefully review the Math requirements for your major. See your program advisor if you have any questions.



*Progression for Liberal Arts and Sciences Students*



*Progression for Career & Technical Education Students*



Dotted boxes show courses that may no longer be offered, or are no longer required for the Program.

**Math 103—Introduction to College Algebra (3)**

*PreReq:* “C” or better in Math 82X or placement in Math 103; and Eng 20 or ESL 20 or placement in Eng 21 or placement in ESL 21 or placement in Eng 22 or (placement in ESL 22G and placement in ESL 22W)

For students who need to improve algebraic skills prior to taking College Algebra, Statistics, or STEM-related courses. Topics include exponents and radicals, factoring, systems of equations, linear equations, quadratic equations, general properties of functions, graphing, polynomial and rational functions, exponential, and logarithmic functions. (3 lec hrs.)

**Math 110—College Algebra (3)**

*PreReq:* “C” or better in Math 103 or placement in Math 110; and Eng 21 or ESL 21 or placement in Eng 102

A continuation from Intermediate Algebra. Topics include: algebraic equations and inequalities, absolute value, polynomials, rational, exponential and logarithmic functions, conic sections, systems of equations and inequalities, matrices and determinants. Additional topics may include sequences and series, combinatorics, probability and/or mathematical induction. (3 lec hrs.)

**Math 115—Statistics (3)**

*PreReq:* “C” or better in Math 75X or placement in Math 115; and “C” or better in Eng 21 or “C” or better in ESL 21 or “C” or better Eng 22 or (“C” or better in ESL 22G and “C” or better in ESL 22W) or placement in Eng 100 or placement in Eng 100E or placement in Eng 102

Presents basic introduction to topics in statistics including: descriptive statistics, elementary probability theory, normal and binomial distributions, and methods of statistical inference. Emphasis is on interpretation and application. (3 lec hrs.)

**Math 120—Trigonometry for Surveying (4)**

*PreReq:* “C” or better in Math 82X or placement in Math 120

Designed for students in Forest TEAM & related careers. Application of trigonometry to surveying. Topics included are solving right triangles to find angle measures and lengths of sides; specifying directions (finding bearings and azimuths to plot surveys); converting between bearings and azimuths; computing precision; using Law of Sine and Law of Cosine to find the measures of angles and lengths of sides of oblique triangles; computing areas of triangles and other polygonal regions using geometric and trigonometric formulas, computing, correcting and balancing latitude and departure, computing error of closure, and finding the coordinates of the survey. (4 lec hrs.)

**Math 135—Pre-Calculus: Elementary Functions (3)**

*PreReq:* “C” or better in Math 103 or placement in Math 135; and “C” or better in Eng 21 or “C” or better in ESL 21 or “C” or better Eng 22 or (“C” or better in ESL 22G and “C” or better in ESL 22W) or placement in Eng 100 or placement in Eng 100E or placement in Eng 102

Functions and relations, polynomial and rational functions, exponential and logarithmic functions, matrices, sequences and series. Instruction will be given on the use of appropriate technology to facilitate conceptual understanding of functions (numerically, graphically, symbolically, and verbally). (3 lec hrs.)

**Math 140—Pre-Calculus: Trigonometry and Analytic Geometry (3)**

*PreReq:* “C” or better in Math 135 or placement in Math 140

Properties of trigonometric functions, analytical geometry, polar coordinates, conic sections, and vectors. (3 lec hrs.)

**Math 241—Calculus I (4)**

*PreReq:* “C” or better in Math 140 or placement in Math 241

Basic concepts of differentiation and integration with applications. (4 lec hrs.)

**Math 242—Calculus II (4)**

*PreReq:* “C” or better in Math 241

The second course in the calculus sequence, which focuses on techniques of integration and on integrals of specific functions and their applications. Explores infinite series. (5 lec hrs.)

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## Microbiology

+ If a student/participant is under 18 years of age a co-signature of parent or guardian is required on the Assumption of Risk and Release Form.

**Micr 130—General Microbiology (3)**

*PreReq:* Eng 21 or ESL 21 or placement in Eng 102; and Eng 22 or (ESL 22G and ESL 22W) or placement in Eng 100 or placement in Eng 100E; and “C” or better in Math 82X or placement in Math 100 or placement in Math 103

*CoReq:* Micr 140L

*Recommended:* One semester of college chemistry or one year of high school chemistry

A survey course of microbiology including topics in infectious disease, microbial taxonomy, morphology, genetics, immunology, microbial ecology, and applied microbiology. (3 lec hrs.)

**+Micr 140L—General Microbiology Lab (2)**

*CoReq:* Micr 130 (or prior completion)

Provides hands-on experience in introductory microbiology. (4 lab hrs.)

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## Music

**Mus 102—Introduction to Sound Recording (3)**

*PreReq:* Eng 21 or ESL 21 or placement in Eng 102

Basic principles of recording studio sound recording. Emphasis on musical acoustics, operation of recording equipment, studio setups, and multitrack recording. Includes studio session process and musical production decisions. (3 lec hrs.)

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## Nurses' Aide

**Nurs 100—Nurse Aide Training (5)**

*PreReq:* Basic Life Support/CPR certificate (AHA/BLS); and Eng 22 or (ESL 22G and ESL 22W) or placement into Eng 100 or placement in Eng 100E

*Recommended:* Hlth 125

Teaches basic care-giving skills focusing on the older adult and infirm. Includes theory, supervised laboratory practice and clinical experience in long-term care, acute care, and/or home care settings. Satisfactory completion allows students to take the State of Hawaii Nurse Aide Certification Exam. (3 lec hrs., 6 lab hrs.)

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## Nursing, Practical

**Nurs 120—Practical Nursing I (9)**

*CoReq:* Nurs 203

Foundational course in which concepts basic to nursing care are presented within the framework of the nursing process. Emphasis is on basic care of the adult and geriatric client using beginning level psychomotor and communication skills. Laboratory simulations and clinical experiences in health agencies. Open to Practical Nursing majors only. (4 lec hrs., 15 lab hrs.)

**Nurs 122—Practical Nursing II (11)**

*PreReq:* "C" or better in Nurs 120 and "C" or better in Nurs 203  
Integrates anatomy and physiology, human behavior, pharmacologic therapy, and nursing care. Emphasis on understanding the needs of patients with medical, surgical, and emotional disturbances, and applying the nursing process to meet these needs. Application of knowledge in patient-care situations, including medication administration, in health care agencies. Open to Practical Nursing majors only. (5 lec hrs., 18 lab hrs.)

**Nurs 126—Child Health (3)**

*PreReq:* "C" or better in Nurs 122  
Theory and clinical experiences in caring for sick children of various age groups in the hospital. Concepts of normal growth and development are considered in the assessment, planning, and implementation of care for individual patients. Offered during summer session only. (1 lec hr., 6 lab hrs.)

**Nurs 128—Maternity Nursing (3)**

*PreReq:* "C" or better in Nurs 122  
Caring for the normal family unit during the antepartal, intrapartal, and postpartal periods including care of the newborn infant. Clinical experiences in doctor's office, hospital maternity and newborn units. Offered during summer session only. (1 lec hr., 6 lab hrs.)

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## Nursing, Associate of Science

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**Nurs 151—Psychiatric-Mental Health Nursing (4)**

*PreReq:* ("C" or better in Nurs 153 and "C" or better in Nurs 203) or "C" or better in Nurs 250  
*CoReq:* Nurs 157 or Nurs 255  
Focuses on the care of clients across the lifespan experiencing cognitive, mental, and behavioral disorders. Emphasis is on nursing management of clients and families experiencing disruptions in psychosocial functioning. Concepts of crisis intervention, therapeutic communication, anger management, and coping skills are integrated throughout the course. Clinical experiences provide the student an opportunity to apply theoretical concepts and implement safe patient care to patients in mental health settings throughout the health continuum. (2.5 lec hr., 4.5 lab hrs.)

**Nurs 153—Nursing Concepts and Skills (8)**

*PreReq:* Must be accepted into the AS-NURS program  
*CoReq:* Nurs 203  
Provides an introduction to nursing and roles of the nurse, as well as profession related and patient care concepts. The theoretical foundation for basic assessment and nursing skills is presented along with the opportunity to demonstrate these skills in a clinical laboratory setting. Emphasis is placed on the knowledge and skills needed to provide safe, quality care. An introduction to the nursing process provides a decision-making framework to assist students in developing effective clinical judgment skills. Correlated clinical experiences are provided with adults and older adults who have basic health alterations with predictable outcomes. (4 lec hrs., 12 lab hrs.)

**Nurs 157—Adult Health Nursing I (8)**

*PreReq:* "C" or better in Nurs 153 and "C" or better in Nurs 203  
*CoReq:* Nurs 151  
Focuses on the care of adult and older adult patients with health alterations that require medical and/or surgical intervention. Emphasis is placed on the care of patients with moderately complex needs and outcomes. Concepts of patient-centered care, cultural sensitivity, informatics, safe practice, and professionalism are integrated throughout the course. Correlated clinical experiences emphasize clinical decision-making, patient care management including prioritization of care, and development of psychomotor skills. (4 lec hrs., 12 lab hrs.)

**Nurs 203—General Pharmacology (3)**

*PreReq:* Admission into the AS-NURS or CA-PRCN program  
*CoReq:* Nurs 120 or Nurs 153  
Introduces the principles of pharmacology, including pharmacokinetics, pharmacodynamics, medication interactions, potential adverse medication reactions, and legal, ethical and safety aspects of medication administration. Emphasis is on nursing responsibilities such as maximizing therapeutic effects of drug therapy and minimizing adverse effects, appropriate patient/family teaching, and ongoing patient assessment. (3 lec hrs.)

**Nurs 250—LPN to RN Transition (3)**

*PreReq:* "C" or better in all prerequisites for the AS-NURS program; and current active HI LPN license; and at least 1 year practice experience as a LPN  
Designed as a transition course for the LPN to AS-NURS pathway. The focus is on reentry into the educational setting, development of critical thinking skills, physical assessment, the nursing process, role transition, and clinical skill competency. Ethical and legal responsibilities and the changing role of the RN are explored. Clinical practice opportunities in varied healthcare settings are included. (2 lec hrs., 3 lab hrs.)

**Nurs 254—Family Health I—Maternal/Newborn Nursing (5)**

*PreReq:* "C" or better in Nurs 151 and "C" or better in Nurs 157  
*CoReq:* Nurs 255  
Provides an integrative, family-centered approach to the care of mothers, newborns, and the childbearing family. Emphasis is placed on normal and high-risk pregnancies, normal growth and development, family dynamics, and the promotion of healthy behaviors in patients. Clinical experiences provide the student an opportunity to apply theoretical concepts and implement safe patient care to mothers, newborns, and families in selected settings. (3 lec hrs., 6 lab hrs.)

**Nurs 255—Family Health II—Pediatrics/Adult Health Nursing II (7)**

*PreReq:* ("C" or better in Nurs 151 and "C" or better in Nurs 157) or "C" or better in Nurs 250  
*CoReq:* Nurs 151 or Nurs 254  
Focuses on the care of patients across the lifespan with complex medical-surgical health alterations. Emphasis is placed on family concepts and nursing care of infants, children, and young to older adult patients. Concepts of pharmacology, health promotion and education, evidence-based practice, and interprofessional collaboration will be integrated throughout the course. Correlated clinical experiences integrate previously acquired knowledge and skills to the care of infants, children, and adult to older adult patients with increasingly complex health alterations and outcomes. (4 lec hrs., 9 lab hrs.)

**Nurs 257—Advanced Adult Health Nursing III (8)**  
*PreReq:* (“C” or better in Nurs 151 or “C” or better in Nurs 254) and “C” or better in Nurs 255  
*CoReq:* Nurs 260  
This capstone course focuses on advanced concepts of nursing care as they relate to patients across the lifespan with complex, multisystem alterations in health. Emphasis is placed on implementing time management and organizational skills, priority setting, clinical judgment, and tenets of legal and ethical practice while managing the care of patients with multiple needs and collaborating with the interprofessional team. Correlated clinical experiences emphasize refinement of clinical decision making and patient care management as well as honing complex clinical skills. (4 lec hrs., 12 lab hrs.)

**Nurs 260—Leadership/Community Health (3)**  
*PreReq:* (“C” or better in Nurs 151 or “C” or better in Nurs 254) and “C” or better in Nurs 255  
*CoReq:* Nurs 257  
Focuses on contemporary issues and leadership concepts, as well as community based nursing practice including the role of the nurse in community health settings. Content will integrate leadership concepts and professional nursing practice in managing complex health care needs. Correlated clinical experiences will provide students the opportunity to address patient care needs in a variety of community-based settings. Facilitates the transition of the student to the role of a professional nurse. (2 lec hrs., 3 lab hrs.)

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## Oceanography

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**Ocn 101—Introduction to Marine Option Program (1)**  
Designed for students intending on earning a Marine Option Program certificate. Provides an overview of Hawai'i and Pacific ocean issues and organizations involved with marine activities, management, education, research and business. It will provide exploration of opportunities for internships, research projects, study and careers. Proposal writing, project implementation, and report preparation guidelines. The curriculum is based on best practices established by discussions among Ocn 101 instructors within the UH system. Topic areas may include status of marine science in Hawai'i, how to access data sources relevant to marine science, strategies for locating and qualifying for internship and scholarship opportunities, MOP history and organization, and MOP project proposal. (1 lec hr.)

**Ocn 193—Marine Option Program Skill Project (2)**  
*Recommended:* Ocn 101  
Students will practice strategies, methods, and techniques for successful project completion. Students and the instructor will agree on a project before the start of the course. Reading and research in any area of Oceanography under the direction of a faculty member. Students are encouraged to present their findings at the annual University of Hawai'i system-wide Marine Option Program Student Symposium. (2 lec/lab hrs.)

**Ocn 201—Science of the Sea (3)**  
*PreReq:* Eng 21 or ESL 21 or Eng 22 or (ESL 22G and ESL 22W) or placement in Eng 100 or placement in Eng 100E or placement in Eng 102  
An introductory science course that covers the four primary oceanography disciplines: geological including the nature of ocean basins; chemical properties of sea water; physical including waves, tides, currents; and biological oceanography including environmental concerns and human use of the oceans. (3 lec hrs.)

**Ocn 201L—Science of the Sea Laboratory (1)**  
*CoReq:* Ocn 201 (or prior completion)  
Applies concepts learned in the lecture. 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. Recommended for both science and non-science majors. (3 lab hrs.)

**Ocn 205—Intermediate Oceanography (3)**  
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## Pacific Islands Studies

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**PacS 108—Pacific Worlds: An Introduction to Pacific Islands Studies (3)**  
*PreReq:* “C” or better in Eng 21 or “C” or better in ESL 21 or placement in Eng 102; and “C” or better in Eng 22 or (“C” or better in ESL 22G and “C” or better in ESL 22W) or placement in Eng 100 or placement in Eng 100E  
Introduces students to the geography, societies, histories, cultures, contemporary issues, and arts of Oceania, including Hawai'i. Combines lectures and discussion that emphasize Pacific Islander perspectives and experiences. (3 lec hrs.)

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## Philosophy

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**Phil 100—Introduction to Philosophy: Survey of Problems (3)**  
*PreReq:* Eng 21 or ESL 21 or Eng 22 or (ESL 22G and ESL 22W) or placement in Eng 100 or placement in Eng 100E or placement in Eng 102  
Major philosophers, methods, and issues in philosophy. Discussion of such problems as our knowledge of reality, the freedom of the will, the relations between the mind and body, morality, ethics, and the existence of God. (3 lec hrs.)

**Phil 101—Introduction to Philosophy: Morals and Society (3)**  
*PreReq:* Eng 21 or ESL 21 or Eng 22 or (ESL 22G and ESL 22W) or placement in Eng 100 or placement in Eng 100E or placement in Eng 102  
Examination of social and individual values, obligations, rights, and responsibilities. Application of classical ethical theories to contemporary moral issues. (3 lec hrs.)

**Phil 102—Introduction to Philosophy: Asian Traditions (3)**  
*PreReq:* Eng 21 or ESL 21 or Eng 22 or (ESL 22G and ESL 22W) or placement in Eng 100 or placement in Eng 100E or placement in Eng 102  
Universal themes and problems, methods and fields of Philosophy from the historical as well as positional perspectives of Asian traditions of Hindu, Buddhist, Taoist, Confucian and Shinto philosophical world views. (3 lec hrs.)

**Phil 110—Introduction to Deductive Logic (3)**  
*PreReq:* Eng 21 or ESL 21 or Eng 22 or (ESL 22G and ESL 22W) or placement in Eng 100 or placement in Eng 100E or placement in Eng 102  
An introductory course in the methods and principles of deductive reasoning. Focus on the symbolic representation of truth-functional statements, determining validity of deductive arguments, and demonstrating validity of deductive arguments through formal proofs. Includes sentential logic and predicate logic. (3 lec hrs.)

**Phil 111—Introduction to Inductive Logic (3)**

*PreReq: Placement in Math 82X; and Eng 21 or ESL 21 or Eng 22 or (ESL 22G and ESL 22W) or placement in Eng 100 or placement in Eng 100E or placement in Eng 102*

An introductory course in the methods and principles of inductive reasoning. Focus on the role of probability, statistics, and risk evaluations in decision-making. (3 lec hrs.)

**Phil 120—Science, Technology and Values (3)**

*PreReq: Eng 21 or ESL 21 or Eng 22 or (ESL 22G and ESL 22W) or placement in Eng 100 or placement in Eng 100E or placement in Eng 102*

Addresses the relationship between science, technology and human values with a focus on contemporary problems posed by developments in modern science. Discussion on modern results and historical development of astronomy, evolution and atomic theory. Understanding the impact of cognitive and other values on world views. (3 lec hrs.)

**Phil 211—History of Western Philosophy I (3)**

*PreReq: Eng 21 or ESL 21 or Eng 22 or (ESL 22G and ESL 22W) or placement in Eng 100 or placement in Eng 100E or placement in Eng 102*

An introduction to the history of philosophy based on translation of text originally written in classical Greek or Latin, from the Pre-Socratics, to Plato, Aristotle and the Roman thinkers. (3 lec hrs.)

**Phil 213—History of Western Philosophy III (3)**

*PreReq: Eng 21 or ESL 21 or Eng 22 or (ESL 22G and ESL 22W) or placement in Eng 100 or placement in Eng 100E or placement in Eng 102*

Introduction to the history of philosophy based on texts or translations of 'modern' works, that is, works originally written in a modern European language from the Renaissance to 19th century. (3 lec hrs.)

**Phil 255—Cosmology (3)**

*PreReq: "C" or better in Eng 100 or "C" or better in Eng 100E*

An interdisciplinary general survey of modern science and philosophy from the humanistic perspective. A scientific description of the Universe as a whole and the implication for human life will be studied. The primary philosophical problems of cosmology will be discussed along with the problem of understanding the world and our place in it, as well as our knowledge of it as a part of the Universe. (3 lec hrs.)

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## Physics

**Phys 100—Survey of Physics (3)**

*PreReq: Eng 21 or ESL 21 or Eng 22 or (ESL 22G and ESL 22W) or placement in Eng 100 or placement in Eng 100E or placement in Eng 102*

Students learn the concepts and methods of modern physics. Emphasis on comprehension of the scientific approach to problem solving and understanding of fundamentals of physics in motion, forces and energy, heat and sound, structure of matter, electricity and magnetism, light and relativity. Course designed for liberal arts students and as preparation for mathematics-based physics courses. (3 lec hrs.)

**Phys 100L—Survey of Physics Lab (1)**

*CoReq: Phys 100 (or prior completion)*

Simple experiments in the basic concepts of physics, illustrating the role of physics in society to the nonscientist. (3 lab hrs.)

**Phys 105—Energy Systems and Sustainability (3)**

*PreReq: Eng 21 or ESL 21 or Eng 22 or (ESL 22G and ESL 22W) or placement in Eng 100 or placement in Eng 100E or placement in Eng 102*

A natural science course for non-science majors. Focuses on the fundamental understanding of the physical, chemical, technical, and environmental aspects of the generation, and the use of energy on a global, regional, local, and individual level. Renewable energy sources and technologies are discussed. (3 lec hrs.)

**Phys 151—College Physics I (3)**

*CoReq: Math 140 (or prior completion)*

First half of a two-semester algebra-based introductory Physics course for preprofessional students. Topics covered include Newtonian mechanics, work and energy, wave motion, and heat. (3 lec hrs.)

**Phys 151L—College Physics Laboratory I (1)**

*CoReq: Phys 151 (or prior completion)*

A laboratory supplement for Phys 151; covers basic principles of experimentation and physical measurement. Presents illustrative experiments in mechanics, heat and waves. (3 lab hrs)

**Phys 152—College Physics II (3)**

*PreReq: Math 140; and Phys 151*

Second half of a two-semester algebra-based introductory Physics course for preprofessional students. Topics covered include electricity, magnetism, electrical circuits, optics, light, and selected topics in modern physics. (3 lec hrs.)

**Phys 152L—College Physics II Lab (1)**

*CoReq: Phys 152 (or prior completion)*

Second half of a two-semester Laboratory supplementing the algebra-based introductory Physics course for science students. Designed to provide the students hands-on experience in the experimental analysis, physical observation, and measurements in electricity, magnetism, and geometric optics. Emphasis is on measurement techniques and analysis of data. (3 lab hrs.)

**Phys 170—General Physics I (4)**

*CoReq: Phys 170L; and Math 241 (or prior completion)*

First half of a two-semester calculus-based introductory Physics course for science and engineering students. Provides an introduction into the principles and theories of mechanics of particles and rigid bodies, wave motion, thermodynamics, and kinetic theory. (4 lec hrs.)

**Phys 170L—General Physics I Lab (1)**

*CoReq: Phys 170 or Phys 151 (or prior completion of either)*

First-half of a two-semester Laboratory supplementing the calculus-based introductory physics course for science and engineering students. Covers the basic principles of experimentation and measurements. (3 lab hrs.)

**Phys 272—General Physics II (3)**

*PreReq: Phys 170 and Phys 170L*

*CoReq: Phys 272L; and Math 242 (or prior completion)*

Second half of a two-semester calculus-based introductory Physics course for science and engineering students. Provides an introduction into the principles and theories of electricity, magnetism, light, and optics. (3 lec hrs.)

## Phys 272L—General Physics II Lab (1)

*PreReq: Phys 170L*

*CoReq: Phys 272 or Phys 152 (or prior completion of either)*

Second half of a two-semester Laboratory supplementing the calculus-based introductory Physics course for science and engineering students. Covers the basic principles of experimentation and measurements. (3 lab hrs.)

## Physiology

+ If a student/participant is under 18 years of age a co-signature of parent or guardian is required on the Assumption of Risk and Release Form.

### Phyl 141—Human Anatomy and Physiology I (3)

*PreReq: "C" or better in Eng 21 or "C" or better in ESL 21 or "C" or better in Eng 22 or ("C" or better in ESL 22G and "C" or better in ESL 22W) or placement in Eng 100 or placement in Eng 100E or placement in Eng 102*

*CoReq: Phyl 141L*

*Recommended: Chem 100 or BioC 141; and Biol 100 or Micr 130 or Hlth 125*

Structure and function of the human body, including basic biochemistry, cells, tissues, and detailed coverage of the integumentary, skeletal, muscular, and nervous systems. (3 lec hrs.)

### +Phyl 141L—Human Anatomy and Physiology I Lab (1)

*CoReq: Phyl 141 (or prior completion)*

Observation and identification of human tissues under light microscopy, in photomicrographs, and in Human models. Dissection of animal organs and tissues to complement lectures. (3 lab hrs.)

### Phyl 142—Human Anatomy and Physiology II (3)

*PreReq: "C" or better in Phyl 141*

*CoReq: Phyl 142L*

*Recommended: Chem 100 or BioC 141; and Biol 100 or Micr 130 or Hlth 125*

Structure and function of the human body, including metabolism, fluid and electrolyte balance, genetics, and detailed coverage of the endocrine, cardiovascular, lymphatic, respiratory, digestive, urinary and reproductive systems. (3 lec hrs.)

### +Phyl 142L—Human Anatomy and Physiology II Lab (1)

*CoReq: Phyl 142 (or prior completion)*

Observation and identification of human tissues under light microscopy, in photomicrographs, and in Human models. Dissection of animal organs and tissues to complement lectures in Physiology 142. (3 lab hrs.)

## Political Science

### PolS 110—Introduction to Political Science (3)

*PreReq: Eng 21 or ESL 21 or placement in Eng 102; and Eng 22 or (ESL 22G and ESL 22W) or placement in Eng 100 or placement in Eng 100E*

An introduction to the discussion of politics as an activity and of political problems, systems, ideologies, and processes. (3 lec hrs.)

## Psychology

### Psy 100—Survey of Psychology (Introductory) (3)

*PreReq: Eng 21 or ESL 21 or Eng 22 or (ESL 22G and ESL 22W) or placement in Eng 100 or placement in Eng 100E or placement in Eng 102*

Principles of human behavior, individual difference, motivation, emotion, perception, learning. (3 lec hrs.)

### Psy 170—Psychology of Adjustment (3)

*PreReq: Eng 21 or ESL 21 or placement in Eng 102; and Eng 22 or (ESL 22G and ESL 22W) or placement in Eng 100 or placement in Eng 100E*

Understanding, evaluating and improving adjustment. Ideas and techniques concerning behavior change and personal growth. (3 lec hrs.)

### Psy 213—Statistical Techniques (4)

*PreReq: "C" or better in Psy 100*

*CoReq: Math 110 or Math 115 (or prior completion of either)*

To understand statistical procedures utilized for the behavioral and social sciences. This includes: examining frequency distributions, graphic methods, central tendency and variability, correlation and regression, inferential statistics, non-parametric statistics, and tests of significance. Explores uses and abuses of statistics, as well as enhancing critical reasoning ability of statistical procedures. (3 lec hrs., 2 lec/lab hrs.)

### Psy 214—Research Methodology (4)

*PreReq: "C" or better in Psy 100 and "C" or better in Psy 213; and "C" or better in Eng 100 or "C" or better in Eng 100E*

Examines methods of critically reading, interpreting, and evaluating psychological research. Explores ethical issues in research methods of scientific observation, development of experiments using a variety of research designs and writing using APA style. (4 lec hrs.)

### Psy 251—Human Sexuality (3)

*PreReq: Eng 21 or ESL 21 or placement in Eng 102; and Eng 22 or (ESL 22G and ESL 22W) or placement in Eng 100 or placement in Eng 100E*

The biological, psychological, and sociological determinants of human sexuality are explored. Some specific topic areas include: the anatomy and physiology of sexual behavior and reproduction, gender role and sexual differences, sexual variations in behavior, clinical dysfunctions and treatment, and contemporary issues. (3 lec hrs.)

### Psy 260—Psychology of Personality (3)

*PreReq: Eng 21 or ESL 21 or placement in Eng 102; and Eng 22 or (ESL 22G and ESL 22W) or placement in Eng 100 or placement in Eng 100E; and Psy 100*

The scientific study of personality, its meaning, assessment, development, and relation to cultural-social determinants. (3 lec hrs.)

### Psy 270—Intro to Clinical Psychology (3)

*PreReq: Psy 100*

Examines the history, theories, and nature of psychological problems; methods of assessment; forms of intervention; and current developments. (3 lec hrs.)

### Psy 275—Psychology and the Expressive Arts (3)

*PreReq: Psy 100 or Psy 170 or Hum 100*

The theory and practice of studying the personality through the visual arts, writing arts, dance, music, and drama towards a therapeutic end for the individual utilizing group dynamics. May be repeated for credit, up to 6 credits. (3 lec hrs.)

## Quantitative Methods

### QM 78B—Quantitative Methods Companion for Business (1)

CoReq: Busn 188

Recommended: English and Math skills at the High School Common Core level

Provides students concurrently enrolled in Busn 188 with support with special emphasis on computational operations and problem solving. Course topics are tailored to the Busn 188 topics and may include percents, strategies to solve word problems, estimating, data interpretation, basic algebra, accounting and finance terms and concepts, and international currency exchange rates. Credit for this course is dependent on successful completion of Busn 188. (1 lec hr.)

### QM 78H—Quantitative Methods Companion for Culinary Arts (1)

CoReq: QM 120H

Recommended: English and Math skills at the High School Common Core level

Provides students concurrently enrolled in QM 120H with support with special emphasis on computational operations and problem solving. Course topics are tailored to the QM 120H topics and may include ratio and percent, unit conversion, graphs, data interpretation, basic algebra, solving linear equations, and working with formulas. Credit for this course is dependent on successful completion of QM 120H. (1 lec hr.)

### QM 80—Quantitative Methods Preparation (3)

Will cover arithmetic skills that pertain to quantitative reasoning in various professions, which includes but not limited to: whole numbers, fractions, decimals, ratios, proportions, and percentages. Prepares students for the QM 120T course. (3 lec hrs.)

### QM 120H—Quantitative Methods for Culinary Arts (3)

PreReq: "C" or better in Math 75X or "C" or better in QM 80 or placement in QM 120H

Introduces the quantitative methods, reasoning, and applications necessary to perform tasks and solve problems encountered by professionals in the culinary field. Quantitative methods covered include computational operations; measurements and units; kitchen ratios, baker's percent, proportion, probability and statistics. Applications include conversions, yield percentages, recipe costing, and interpretation and analysis of quantitative information common in the culinary field. Designed for a Culinary Arts degree and certificate and does not satisfy the quantitative reasoning requirements of other programs. (3 lec hrs.)

### QM 120T—Quantitative Methods for Transportation Technology (3)

PreReq: "C" or better in Math 75X or "C" or better in QM 80 or placement in QM 120T

Covers the quantitative methods, reasoning, and application necessary to perform tasks and solve problems encountered by transportation technologists. The quantitative methods covered include computational operations; geometry and measurements; ratio, proportion, and percent; statistics and probability; and trigonometry. Applications include major transportation systems such as engines, drivetrain, chassis, ventilation, brakes and suspension. Designed for Transportation degrees and certificates but does not satisfy Foundation Symbolic Reasoning (FS) core requirements of an Associate in Arts degree. (3 lec hrs.)

## Religious Studies

### Rel 150—Introduction to the World's Major Religions (3)

PreReq: Eng 21 or ESL 21 or Eng 22 or (ESL 22G and ESL 22W) or placement in Eng 100 or placement in Eng 100E or placement in Eng 102

Introduction to the World's Major Religions: Primal Religions (Shamanist/Animist), Hinduism, Buddhism, Confucianism, Taoism, Judaism, Christianity, and New Modern Religious Movements (Bahai, Rastafarianism, etc.). (3 lec hrs.)

### Rel 151—Religion and the Meaning of Existence (3)

PreReq: Eng 21 or ESL 21 or Eng 22 or (ESL 22G and ESL 22W) or placement in Eng 100 or placement in Eng 100E or placement in Eng 102

Introduction to contemporary religious issues, their background and development, with emphasis on the question, "What is the meaning of existence?" (3 lec hrs.)

### Rel 152—Asian Religions (3)

PreReq: Eng 21 or ESL 21 or Eng 22 or (ESL 22G and ESL 22W) or placement in Eng 100 or placement in Eng 100E or placement in Eng 102

Introduction to the study of Asian Religions: Hinduism, Buddhism, Confucianism, Taoism, Shinto, Islam in Asia, Primal Religions (Shamanist/Animist), and New Modern Asian Religious Movements. (3 lec hrs.)

### Rel 153—Western Religions (3)

PreReq: Eng 21 or ESL 21 or Eng 22 or (ESL 22G and ESL 22W) or placement in Eng 100 or placement in Eng 100E or placement in Eng 102

Introduction to Western Religions: Ancient Religions of the Mediterranean, Primal religions of America and the Pacific, Judaism, Christianity, and Islam. Focus is on modern versions of Christianity and new Religious Movements in the United States. (3 lec hrs.)

## Science

+ If a student/participant is under 18 years of age a co-signature of parent or guardian is required on the Assumption of Risk and Release Form.

### +Sci 20—Individual and Environment (3)

The nature of man and of the problems which science and technology have created; overpopulation and pollution and possible alternative solutions. (3 lec hrs.)

### Sci 25—An Introduction to the Environment through Film (3)

An exploration of environmental issues through film. Explores natural phenomena as well as human/environment interactions and possible solutions to environmental problems. (2 lec hrs., 2 lec/lab hrs.)

### Sci 51—Basic Science for Health Occupations (3)

Basic concepts in chemistry, physics, microbiology, anatomy, and physiology are included. Primarily for students in health occupation programs. (3 lec hrs.)

### Sci 190V—Internship (1-4)

PreReq: Biol 101 or Biol 171 or Biol 172 or Chem 100 or Chem 161 or Chem 162 or Phys 151 or Phys 170

Designed for students in the sciences to provide recognition for an internship with a government or private agency or commercial operation in an area of scientific study. The internship program is intended to give students the opportunity to apply knowledge and skills learned in their studies to real life science research and operations with potential employers. May be repeated for credit, up to 8 credits. (variable hrs.)



**Sci 292V—Special Topics: Study Abroad (1-6)**

*PreReq: "C" or better in Eng 100 or "C" or better in Eng 100E or "C" or better in Eng 102*

Special topics allows addition of subjects that meet current needs in study abroad and global education. It will be used for elective credit and may be repeated for different subjects. This course provides a mechanism for study abroad that has a science focus. May be repeated for credit provided that a different topic is studied, up to 12 credits. (variable hrs.)

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## Social Science

**SSci 111—Food, Water, Energy, Technology: Then and Now (3)**

Humanity's existence in a changing society brought about by rapid technological advancements. Trends, current issues, and future global alternatives for man's survival. (3 lec hrs.)

**SSci 150—Ecology and Society (3)**

*PreReq: Eng 21 or ESL 21 or Eng 22 or (ESL 22G and ESL 22W) or placement in Eng 100 or placement in Eng 100E or placement in Eng 102*

Examines how the relationship between the individual and the natural environment is mediated through society. Involves learning to identify systems of culture and political economy in terms of institutionalized relationships to nature. Students develop a basic awareness of environmental issues and problems, their causes, and solutions. (3 lec hrs.)

**SSci 160—Modes of Thought (3)**

Cross-listed as Hum 160

*Recommended: Eng 21 or ESL 21 or Eng 22*

Literature-based Western tradition survey. Emphasis on intellectual history and the approaches to issues used in the humanities and social sciences. Values definition and clarification. (3 lec hrs.)

**SSci 241—Labor Problems and Trade Unionism (3)**

Problems and economics of labor, history, structure, government, activities of trade unions; social and labor legislation. (3 lec hrs.)

**SSci 250—Environmental Issues (3)**

*PreReq: Eng 22 or (ESL 22G and ESL 22W) or placement in Eng 100 or placement in Eng 100E; and Math 82X or placement in Math 103; and SSci 150; and consent of instructor*

This interdisciplinary course will require students to synthesize skills, knowledge and understanding of environmental issues. Students will be required to, individually or in a group, independently research and evaluate an issue relevant to our environment in Hawai'i, such as development, pollution, conservation, or natural resources. This includes interacting with the community, such as service learning. (3 lec hrs.)

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## Sociology

**Soc 100—Survey of General Sociology (3)**

*PreReq: Eng 21 or ESL 21 or Eng 22 or (ESL 22G and ESL 22W) or placement in Eng 100 or placement in Eng 100E or placement in Eng 102*

Survey of basic social relationships, social structures and processes. (May be applied toward Sociology major in UH Hilo College of Arts and Sciences) (3 lec hrs.)

**Soc 200—Career Opportunities in Sociology (1)**

A forum for the presentation of career opportunities for Sociology majors and minors. Features speakers, and the development of practical professional skills, including writing a resume. (1 lec hr.)

**Soc 208—Criminology (3)**

Cross-listed as AJ 208

*PreReq: Eng 21 or ESL 21 or Eng 22 or (ESL 22G and ESL 22W) or placement in Eng 100 or placement in Eng 100E or placement in Eng 102*

Explores crime and the body of knowledge regarding it as a social phenomenon. An emphasis is placed on the analysis of crime, crime causation, crime variables, impact on society, and societal reactions to crime. (3 lec hrs.)

**Soc 218—Introduction to Social Problems (3)**

*PreReq: Eng 22 or (ESL 22G and ESL 22W) or placement in Eng 100 or placement in Eng 100E*

An introduction to the major social problems and issues of contemporary society, including their nature, social causes and possible solutions. (3 lec hrs.)

**Soc 251—Introduction to Sociology of the Family (3)**

*PreReq: Eng 21 or ESL 21 or placement in Eng 102; and Eng 22 or (ESL 22G and ESL 22W) or placement in Eng 100 or placement in Eng 100E*

Examines family patterns, mate selection, parent-child interaction, socialization of roles, legal issues, and current trends in family organization and functions. (3 lec hrs.)

**Soc 265—Community Development (3)**

*PreReq: Eng 21 or ESL 21 or placement in Eng 102; and Eng 22 or (ESL 22G and ESL 22W) or placement in Eng 100 or placement in Eng 100E*

Course introduces students to the theory, methods, and practical application of community development studies. The course will review diverse types of successful community organizing projects with concern for the ethics, strategies and means available for successful community development. The course will involve significant participation in organizing community groups. (3 lec hrs.)

**Soc 289—Sociology of Knowledge (3)**

*PreReq: Eng 22 or (ESL 22G and ESL 22W) or placement in Eng 100 or placement in Eng 100E; and Soc 100*

The sociology of knowledge studies the connection between modes of consciousness and knowledge and social structure. This course examines how forms of consciousness like art, political ideologies, popular culture, science, religious beliefs and philosophy reflect a society's institutions. It reviews the historical processes by which society forms and is formed by ideas. (3 lec hrs.)

**Soc 290—Hawai'i's People (3)**

Sociologically-oriented approaches to create an awareness of individual cultural backgrounds and the culture of other ethnic groups in Hawai'i and in the continental U.S. (May be applied toward Sociology major in UH Hilo College of Arts and Sciences) (3 lec hrs.)

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## Speech

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### Sp 51—Oral Communication Techniques (3)

A practical skills-oriented course stressing a great deal of practice in speech skills. (3 lec hrs.)

### Sp 130—Business and Organization Communication (3)

*PreReq: "C" or better in Eng 22 or ("C" or better in ESL 22G and "C" or better in ESL 22W) or placement in Eng 100 or placement in Eng 100E*

Develops competence in oral and written communication within business and organizational contexts. Provides theory and practical skills to be a confident and effective communicator in a variety of business and organizational settings. (3 lec hrs.)

### Sp 151—Personal and Public Speech (3)

*PreReq: "C" or better in Eng 22 or ("C" or better in ESL 22G and "C" or better in ESL 22W) or placement in Eng 100 or placement in Eng 100E*

Principles, theories and practices in one-to-one, small group, and one-to-many communication situations through participation in structured activities. (3 lec hrs.)

### Sp 231—Performance of Literature (3)

*PreReq: Sp 151*

The study of literature through performance. Practice in rhetorical and literary analysis culminating in performance of literary selections for an audience. The study of and practice in performance criticism. (3 lec hrs.)

### Sp 233—Oral Traditions: Story Telling (3)

*PreReq: "C" or better in Eng 22 or ("C" or better in ESL 22G and "C" or better in ESL 22W) or placement in Eng 100 or placement in Eng 100E*

*CoReq: Eng 102 (or prior completion)*

An introduction to a variety of Oral Traditions from different cultural groups along with the skills required to perform storytelling successfully. Half the content of this course will be dedicated to Hawaiian/Pacific/Asian cultures. Audience, context and outcome analysis form the basis of all public communication planning, and form the core of the theoretical foundation. In addition, course will pose special questions related to the origin and intent of particular literature. Students will select, analyze, rehearse and perform three types of storytelling presentations such as ancient mythology, folktales, wisdom tales, and modern genres. Students will be encouraged to invent and compose their own stories in some appropriate genre. Students will be encouraged to perform one of the three options in the community at an appropriate function of their choice. All performances are critiqued orally and with a written instrument. May be repeated for credit, up to 6 credits. (3 lec hrs.)

### Sp 251—Principles of Effective Public Speaking (3)

*PreReq: Eng 100 or Eng 100E*

Analysis, preparation and delivery of speeches. Emphasis on content, organization and style. (3 lec hrs.)

### Sp 260—Media and Society (3)

*PreReq: Eng 100 or Eng 100E*

An introductory survey course that explores the history, architecture, impacts, and major theories of mass media. It fuses theory with practice by including a component on media message production that permits students a hands-on learning style with actual media production skills and vocabulary. (3 lec hrs.)

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## Substance Abuse

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### Subs 130—Introduction to Youth Practitioner (3)

Cross-listed as AJ 130 and HSer 130

*PreReq: Eng 20 or ESL 20 or placement in Eng 22 or (placement in ESL 22G and placement in ESL 22W)*

*Recommended: AJ 210 or HSer 110*

Introduces the core skills needed by youth practitioners. Focuses on basic communication skills, growth and development of adolescents, family and cultures and their roles in development, and youth with special needs. Develops teamwork and basic workforce skills. Also useful for in-service administration of justice, human services and substance abuse counseling professionals seeking to upgrade their knowledge and skills in community-based prevention programs for youth and families. Students who successfully complete AJ 130, or HSer 130, or Subs 130 with a "C" grade or better are eligible to receive 45 hours of prevention studies education from the State of Hawai'i Department of Health - Alcohol and Drug Abuse Division towards Prevention Specialist Certification. (3 lec hrs.)

### Subs 131—Ethics in Public Services (1)

Cross-listed as AJ 131 and HSer 131

*PreReq: Eng 21 or ESL 21 or placement in Eng 102; and Eng 22 or (ESL 22G and ESL 22W) or placement in Eng 100 or placement in Eng 100E*

Professional codes of ethics, its legal perimeters, and the concepts of values, boundaries, morals, and confidentiality within public services professions of criminal justice, human services, and substance abuse counseling will be explored, analyzed, and discussed. (1 lec hr.)

### Subs 132—STDs and Confidentiality (1)

*PreReq: Eng 21 or ESL 21 or placement in Eng 102; and Eng 22 or (ESL 22G and ESL 22W) or placement in Eng 100 or placement in Eng 100E*

Sexually transmitted diseases (STDs) and Hawaii State and U.S. Federal laws governing the confidentiality of patients and their records, including 42CFR, Part 2, will be explored, analyzed, and discussed. Emphasis is on treatment and confidentiality of individuals, who abuse or are addicted to alcohol and other drugs. (1 lec hr.)

### Subs 140—Individual Substance Abuse Counseling (3)

*CoReq: Subs 268 (or prior completion)*

Focuses on theoretical approaches and interviewing skills used in counseling chemically dependent individuals. This course also examines ethical issues and self-care in substance abuse counseling utilizing didactic and experiential learning. (3 lec hrs.)

### Subs 141—Introduction to Ho'oponopono (3)

Cross-listed as HSer 141

An experiential course that focuses on counseling and resolving conflict among families, individuals and other groups using Hawaiian cultural methods of Ho'oponopono (family) and Ho'oku'u Ka Hewa (individuals and other groups). Students will examine Hawaiian historical foundations, spiritual principles, values and beliefs, protocol and rituals; ancient and modern processes; and levels of involvement and responsibility among participants. (3 lec hrs.)

**Subs 245—Group Counseling (3)**

Cross-listed as HSer 245

*PreReq: Eng 21 or ESL 21 or Eng 22 or (ESL 22G and ESL 22W) or placement in Eng 100 or placement in Eng 100E or placement in Eng 102*

Provides theoretical and experiential training in facilitating groups. Examines the process of facilitation and group membership. Exploring task facilitation, psycho-educational counseling, and psychotherapy groups. Addresses ethical issues and self-care of the group facilitator. (3 lec hrs.)

**Subs 248—Case Management (3)**

Cross-listed as HSer 248

*PreReq: HSer 110 or Subs 268; and Eng 21 or ESL 21 or placement in Eng 102; and Eng 22 or (ESL 22G and ESL 22W) or placement in Eng 100 or placement in Eng 100E*

Provides a systems-based orientation to the development of knowledge and skills needed to become a case manager in health and human services. Incorporates an ethical, culturally appropriate, strength-based and client-centered approach. Skill development includes intake, assessment, service planning, care coordination, discharge planning, referral, advocacy, and documentation. (3 lec hrs.)

**Subs 262—Adolescent Counseling (3)**

Cross-listed as HSer 262

*PreReq: HSer 110 or Subs 268; and Eng 21 or ESL 21 or placement in Eng 102; and Eng 22 or (ESL 22G and ESL 22W) or placement in Eng 100 or placement in Eng 100E*

Focus on interpersonal skills needed in counseling adolescents (ages 12-18 years). Topics include developing effective substance abuse prevention and treatment approaches; screening and assessment; case management; individual, group, and family therapy; treatment in the juvenile justice system; and legal and ethical issues. (3 lec hrs.)

**Subs 268—Survey of Substance Use Disorders (3)**

*PreReq: Eng 21 or ESL 21 or Eng 22 or (ESL 22G and ESL 22W) or placement in Eng 100 or placement in Eng 100E or placement in Eng 102*

Focuses on the continuum of substance use. Analyzes historical, societal, and cultural perceptions, and examines the impact of substance use and behavioral disorders on the individual, family, and the community. Reviews current trends, legal responses, and the effectiveness of various approaches utilized in the field. (3 lec hrs.)

**Subs 270—Twelve Core Functions of Substance Abuse Counseling (3)**

*PreReq: Subs 268*

Provides theoretical and experiential training in the prevention, intervention, treatment, and aftercare approaches applicable to a diverse substance use disorder population. Identifies ethical and legal issues encountered in the field. Covers aspects of the counseling process and specifically, the 12 Core Functions utilized by the substance use disorder counselor. (3 lec hrs.)

**Subs 275—Families and Addiction (3)**

*PreReq: Subs 268*

Identifies the effects of chemical use and abuse on the family from the systemic, disease, and addiction perspectives. Includes developmental stages and task of family recovery and current treatment approaches, including family psychoeducation group counseling. (3 lec hrs.)

**Subs 280—Co-occurring Disorders (3)**

*PreReq: Subs 268*

*CoReq: Subs 270 (or prior completion)*

Encompasses the relationship between chemical dependency and mental illness. This course examines the identification and assessment of individuals diagnosed with co-occurring disorders, current treatment approaches, case management, and challenges that arise in the treatment of individuals with substance abuse and mental illness. (3 lec hrs.)

**Subs 294—Seminar and Fieldwork I (3)**

*CoReq: Subs 140 and Subs 268 (or prior completion of either)*

An exploratory internship for majors who wish to gain field experience in a substance abuse agency setting. The focus is to introduce students to the practical experience of the Twelve Core Functions of a Substance Abuse Counselor by observation and practice when appropriate. (1 lec hr. per week, 200 on-site internship hrs. per semester)

**Subs 295—Seminar and Fieldwork II (3)**

*PreReq: Subs 294*

*CoReq: Subs 270 (or prior completion)*

Provides advanced fieldwork experience in the same agency selected for Practicum I, or in another agency. Students will design and implement more advanced personal objectives than those for Subs 294, while continuing practical experience and training in the Twelve Core Functions. Students will be required to attend classroom seminars to process and discuss field placement experiences. (1 lec hr. per week, 200 on-site internship hrs. per semester)

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## University

**Univ 101—Freshman Year Experience (3)**

Designed to assist first year students in knowing Hawai'i CC, its programs, services, and place in the tradition of higher education. Students will learn about their role, the skills they will need, expectations of others, career options, and the student's contributions to this multi-cultural setting. Admission is limited to classified freshman students. (3 lec hrs.)

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## Women, Gender, and Sexuality Studies

**WGSS 151—Introduction to Women's Studies (3)**

*PreReq: Eng 21 or ESL 21 or Eng 22 or (ESL 22G and ESL 22W) or placement in Eng 100 or placement in Eng 100E*

Presents an interdisciplinary examination of the evolving role, status, and identity of women in a multicultural society. Emphasis will be given to patterns of social change and their effect on contemporary issues. (3 lec hrs.)

**WGSS 175—History of Gender, Sex, and Sexuality in Global Perspectives to 1500 CE (3)**

*PreReq: Eng 21 or ESL 21 or Eng 22 or (ESL 22G and ESL 22W) or placement in Eng 100 or placement in Eng 100E or placement in Eng 102*

A new look at the history of the world using a gender perspective. Explores how gender, sex, and sexuality become key elements in human society from prehistory to 1500 CE. Examines ancient world civilizations from multiple perspectives stressing issues and forces still influential today. (3 lec hrs.)

**WGSS 176—History of Gender, Sex, and Sexuality in Global Perspectives 1500 CE to Present (3)**

*PreReq: Eng 21 or ESL 21 or Eng 22 or (ESL 22G and ESL 22W) or placement in Eng 100 or placement in Eng 100E or placement in Eng 102*

Explores how gender, sex, and sexuality become key elements in human society from 1500 CE to present. Examines world cultures from multiple perspectives, stressing issues and forces of continuing influence. (3 lec hrs.)

**WGSS 256—Dynamics of Family Violence and Sexual Assault (3)**

Cross-listed as AJ 256 and HSer 256

*PreReq: Eng 21 or ESL 21 or placement in Eng 102; and Eng 22 or (ESL 22G and ESL 22W) or placement in Eng 100 or placement in Eng 100E*

Promotes knowledge, skills, sensitivity, and self-care practices for engaging individuals and families affected by interpersonal violence. Examines historical, societal, and legal responses and resources. The content focuses on physical, emotional, and sexual victimization of vulnerable populations like children, elders and LGBTQ+. Addresses dating violence, human trafficking, and intimate partner violence. Examines current research on social, economic, cultural, family, and individual risk factors, perpetrator dynamics, effects of violence on victims and survivors, and effective intervention and prevention strategies. Learners have an opportunity to explore their own values and feelings in relation to difficult subject matter. (3 lec hrs.)

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## Zoology

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**Zool 101—Principles of Zoology (3)**

*PreReq: Eng 21 or ESL 21 or Eng 22 or (ESL 22G and ESL 22W) or placement in Eng 100 or placement in Eng 100E or placement in Eng 102*

The biology of animals: kinds of animals, their structure, evolutionary relationships, physiology, ecology and development. (3 lec hrs.)

**Zool 101L—Principles of Zoology Lab (1)**

*CoReq: Zool 101 (or prior completion)*

Laboratory to accompany Zool 101. Laboratory exercises on the biology of animals, their structure, evolutionary relationships, physiology, and ecology. (3 lab hrs.)