

# 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. (number of lecture hours class meets per week - 8 weeks for ESOL, 15 weeks for Eng and Math.)

## Intensive English Program (IEP)

The Intensive English Program (IEP) at Hawai'i Community College provides comprehensive support services to non-native English learners. The IEP offers 20 hours a week of academic English language instruction in reading, writing, listening, speaking, and grammar skills.

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 a TOEFL score.

For more information about the IEP and tuition, contact the Coordinator at (808) 934-2697. Or view information online at [www.iephawaii.com](http://www.iephawaii.com)

## 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.)

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## Accelerate to Success Initiative

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The Community Colleges in the University of Hawai'i System have recently redesigned their models for offering developmental courses in English and Math. Beginning Fall 2016, Hawai'i CC has revised the offerings for developmental reading, writing, and math courses. These changes will most likely impact students currently placed in English and Math courses below the 100 level.

One reason for this redesign is to provide students an opportunity to accelerate through developmental coursework and complete the 100-level English and Math courses within one year (for those students placing in ENG 20R/20W or MATH 24 or higher).

Visit a Counselor or Faculty Advisor to learn more about how these models might impact the progression through English and/or Math courses.

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## 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. A pre-Statistics course (Math 76) has been developed for students who place into Math 24.

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

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## Non-Credit English and Mathematics

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For students needing review or improvement of basic reading, writing, and math skills in preparation for credit-bearing college courses, Hawai'i CC offers the following English and Math non-credit courses.

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### English (Non-Credit)

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#### Eng 1—English Fundamentals (0)

Designed to help students improve basic reading and writing skills (including vocabulary, reading strategies, reading comprehension, summary, sentence, writing process, and composition skills). (4 lec hrs.)

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### Mathematics (Non-Credit)

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#### Math 1—Basic Math (0)

Students will review the procedures used to solve problems involving whole numbers, fractions, decimals, ratio, proportion, and percent. Covers addition, subtraction, multiplication, and division, exponential notation, order of operations, estimation, factorization, divisibility, least common multiple, concept of fractions and decimals, conversion between fractions, and decimals and applications. (4 lec hrs.)

#### Math 2—PreAlgebra (0)

*PreReq: Math 1 or Math 1ABCD or placement in Math 22 or placement in Math 2*

Prepares students for elementary algebra, technical math, and/or select program courses. Topics include operations with rational numbers, an introduction to variables, expressions, equations, ratios, proportions, percents, and applications. (4 lec hrs.)

# Credit Course Listings

## Cooperative Vocational Education

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### 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

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### 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/records-forms](http://www.hawaii.hawaii.edu/admissions/records-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;
- 3) approval of the appropriate division chairperson; and
- 4) permission of the Vice Chancellor for Academic Affairs.

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

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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

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Grading for these 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 Course Listings

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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. (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 in the Schedule of Classes.)

## Accounting

### Acc 120—College Accounting I (3)

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

*Recommended:* Busn 188

An introduction to the accounting profession and basic principles of accounting; emphasis on the accounting cycle through the use of journals, ledgers, worksheets and financial statements. Utilizes forms and procedures predominant in manual bookkeeping and accounting systems. (3 lec hrs.)

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

*PreReq:* "C" or better in Acc 120; and "C" or better in Eng 21 or "C" or better in ESL 21 or placement in Eng 102; and Busn 188

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 102 or "C" or better in Acc 120

This course 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 Acc 120; and "C" or better in Eng 21 or "C" or better in ESL 21 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 State of Hawai'i forms for payroll taxes and of the Hawai'i forms for payroll taxes and of the Hawai'i General Excise and Use Tax. (3 lec hrs.)

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

*PreReq:* "C" or better in Acc 120; and "C" or better in Eng 21 or "C" or better in ESL 21 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 120 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 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 120 or "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 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 252 (was Acc 150) and "C" or better in Acc 155

*CoReq:* Acc 126 or Acc 202 (or prior completion of either)

*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

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

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 131—Ethics in Public Services (1)**

Cross-listed with 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

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

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 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

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 230—Prevention Specialist (3)**

Cross-listed with HSer 230 and Subs 230

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

*Recommended: AJ 210 or HSer 110 or HSer/Subs 245*

Provides education and training for students interested in pursuing careers as community-based Prevention Specialists, and 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/HSer/Subs 230 with a "C" or better grade 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 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*

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*

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 250—Practice & Procedures in Corrections (3)**

*PreReq: AJ 101 and AJ 150*

Provides students with the basic training skills necessary to enhance their opportunities to secure a job in the high demand field of corrections. The course will focus on such areas as the history and philosophy of corrections, the role of the correctional officer, legal aspects of corrections, communication and writing skills, as well as basic security procedures. (3 lec hrs.)

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

Cross-listed as HSer 256 and WS 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*

Focuses on domestic violence and child abuse. The cycle of violence, causes, effects, and symptoms of child abuse will be explored. Legal, public policy, criminal justice, health and social services responses, and interventions to family, child, and intimate partner abuse will be examined. (3 lec hrs.)

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

*PreReq: AJ 101; and Eng 100*

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)

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## Agriculture

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**Ag 31—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 33—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 40—Plant Identification (3)**

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

**Ag 46—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 54A—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 54B—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 64—Livestock Production I (3)**  
Farm management techniques and practices involved in producing and marketing superior quality pork, eggs and fryers. (6 lec/lab hrs.)
- 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 102; and Math 25 or Math 26 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 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 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 102; and Math 1ABCD or QM 80 or placement in Math 22 or placement in Math 50 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 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" in ESL 22W) or placement in Eng 100 or placement in Eng 102; and "C" or better in Math 25 or "C" or better in Math 26 or placement in Math 120*  
*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 Geog 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 Eng102; and Math 25 or Math 26 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 102; and Math 22 or QM 80 or placement in Math 24 or placement in Math 26 or placement in Math 76 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 students to agricultural business management practices. Roles such as managing, decision processes, records, budgeting, financial statements, ratio analysis, cash flow analysis and computer literacy are expected. Web based research and business planning are explored and developed. (6 lec/lab hrs.)
- Ag 245—Tropical Silviculture and Forest Plant Propagation (3)**  
*PreReq: "C" or better in Eng 100; and "C" or better in Eng 102; and "C" or better in Math 120; 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 102

An introduction to production methods for selected crops; compares conventional and alternative methods of production, and analysis 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 102; and Math 22 or QM 80 or placement in Math 24 or placement in Math 26 or placement in Math 76 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: "C" or better in Eng 100; and "C" or better in Eng 102; and "C" or better in Math 25 or "C" or better in Math 26 or placement in Math 100 or placement in Math 103

CoReq: AG 275L

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—Forest Restoration Ecology and Ecosystem Management Practicum (3)

PreReq: Geog 170 and Geog 180 and Ag 175

Designed for students in Forest TEAM and related careers. This is the capstone course of the Forest TEAM program. It is a practicum which will give students field experience in methods of assessing the condition of and threats to native and planted forests and developing plans for their management. Students will assess threats to forests, such as alien species, and devise ways of controlling them. They will apply forest restoration methods involving propagation of forest trees and herbs. (6 lec/lab hrs.)

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## Anthropology

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### 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

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 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 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; 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

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

*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, pictorial drawings, sectional views, dimensioning, floor plans, foundation plans, and exterior elevations will be drawn. (10 lec/lab hrs.)

### AEC 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. (6 lec/lab hrs.)

### 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: Eng 18 or ESL 7 or placement in Eng 20R or placement in ESL 20R*

*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)

*PreReq: AEC 100 and AEC 112*

An introductory course into Architectural design concepts used to create a full set of construction drawings utilizing AutoCAD. A structural model of three-bedroom residence will be constructed. Procedures learned AEC 100, and AEC 112 will be applied. (12 lec/lab hrs.)

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

*Recommended: Proficiency in computer and Internet use to conduct research and write essays with electronic submission*

A careful study of the environment including native plants, endangered species, and how society is impacting the natural environment. Topics include efforts to mitigate the negative impact. Discussion topics include site development and sustainable measure guidelines by various national organizations and programs. Also includes an introduction to green building concepts, terminology, and systems. Involves research, written assignments, presentations, and other activities. (2 lec hrs.)

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

*PreReq: AEC 112 and AEC 113*

An introduction to site plan drawings including maps, surveys, contours and profiles, site plans, site utilities, and land excavation. Also included are CAD drawings to alter site contours, retain site areas, and flanking cut-and-fill gradients for roadways. Emphasis will focus on measuring horizontal distances on steep slopes, alignment between points, and correcting common errors in measuring distances. (4 lec/lab hrs.)

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

Designed to introduce the student to the principles and techniques of GIS (Geographic Information Systems), a computer-based tool that uses spatial (geographic) data to analyze and solve real-world problems. The lab material will emphasize GIS data collection using GPS (Global Positioning System), entry, storage, analysis, and output using ArcGIS Desktop software. (8 lec/lab hrs.)

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

*PreReq: AEC 120 and AEC 128*

*CoReq: AEC 234 (or prior completion)*

*Recommended: Proficiency in CAD and manual drafting*

Advanced study and application of materials and methods of construction related to 2-story dwelling planning and sustainable design practices with applicable code compliance, utilizing wood framing, and concrete construction principles and basic structural load analysis to create a complete set of contract drawings. Standard drafting conventions apply to both manual and CAD drafting applications. (8 lec/lab hrs.)

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

*PreReq: AEC 112*

*CoReq: AEC 234 (or prior completion)*

*Recommended: Experience with computer 3D image modeling*

Perception, design, and communication are explored through human perception, multi-sensory reception, interpretation of sensory input by the brain, and emotional and cultural factors. 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. Analytical exercises which examine both existing self-created orders and studio activities involving thinking, reading, writing, drafting, model making, and especially drawing (freehand, with instruments, and computer). (8 lec/lab hrs.)

**AEC 234—3D CAD Imaging (1)**

*PreReq: AEC 112*

An introduction to a 3D modeling program primarily aimed at building design. Topics include the user interface, basic modeling concepts, and object creation. The student will construct several 3D computer models. (2 lec/lab hrs.)

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

*PreReq: AEC 115 and 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: 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)**

*PreReq: AEC 112 and AEC 113*

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. Robotics and data collection methods using GPS static surveys and Real-Time Kinematic (RTK) GPS surveys along with the Geomatics software used for collecting accurate geospatial data in field will be introduced. (4 lec/lab hrs.)

**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 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)**

*PreReq: Art 105B*

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 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. (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: 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. (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 209—Image in Motion Studio (3)**  
*PreReq: 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. (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. (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—Oriental 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 Art 209

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 Art 209 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 Art 209

*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. (6 lec/lab hrs.)

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

*PreReq:* Art 202 and Art 209

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. (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.)

## Asian

### 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)

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

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*

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.)

## Astronomy

### 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 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.)

## Auto Body Repair and Painting

+ Valid driver's license required.

### + ABRP 20A—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 30A—Metal and Plastic Refinishing (12)

*PreReq: "C" or better in ABRP 20A*

An introduction to areas of preparation, refinishing, and color matching of metal and plastic substrates. (24 lec/lab hrs.)

### + ABRP 40A—Panel and Glass Replacement Techniques (12)

*PreReq: "C" or better in ABRP 30A*

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 50A—Frame Measuring and Alignment Techniques (12)

*PreReq: "C" or better in ABRP 40A*

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

+ Valid driver's license required.

### + AMT 40C—Electrical System (6)

*PreReq: "C" or better in AMT 20, and "C" or better in AMT 23, and "C" or better in AMT 30, and "C" or better in AMT 40B*

*CoReq: AMT 46 and AMT 57*

The theory, operation, design, and repair of automobile electrical systems, including power sources, regulators, indicators, wiring, lighting, and accessories. (12 lec/lab hrs.)

### + AMT 43—Heating and Air Conditioning (3)

This course is designed to provide the student with related technical and manipulative skills necessary for entrance into the automotive heating and air conditioning field. Air condition servicing and diagnostics will be covered using approved recovery/recycling equipment. Training is also provided on the function of the vacuum, electrical, refrigeration and computer control circuits. (3 lec hrs.)

### + AMT 46—Power Train (4)

*PreReq: "C" or better in AMT 20, and "C" or better in AMT 23, and "C" or better in AMT 30, and "C" or better in AMT 40B*

*CoReq: AMT 40C and AMT 57*

The theory, construction, design, service and repair of standard transmissions and clutches. (8 lec/lab hrs.)

### + AMT 50—Auto Transmission (4)

*PreReq: "C" or better in AMT 40C, and "C" or better in AMT 46, and "C" or better in AMT 57*

*CoReq: AMT 53 and AMT 55*

The use of testing equipment (pressure readings and vacuum test), adjusting bands, linkage adjustments, replacing worn parts, and troubleshooting procedures. (8 lec/lab hrs.)

### + AMT 53—Brake Systems (4)

*PreReq: "C" or better in AMT 40C, and "C" or better in AMT 46, and "C" or better in AMT 57*

*CoReq: AMT 50 and AMT 55*

The maintenance and repair of the hydraulic and power brake system. (8 lec/lab hrs.)

### + AMT 55—Suspension and Steering (4)

*PreReq: "C" or better in AMT 40C, and "C" or better in AMT 46, and "C" or better in AMT 57*

*CoReq: AMT 50 and AMT 53*

The theory, design, construction, service and repair of standard and power steering, and front and rear suspensions, including tires, wheels, alignment and balancing. (8 lec/lab hrs.)

### AMT 55B—Suspension and Steering (2)

Theory, design, and construction of steering systems, suspension systems and alignment for non-major students. (2 lec hrs.)

- + AMT 57—Emission (2)**  
*PreReq: "C" or better in AMT 20, and "C" or better in AMT 23, and "C" or better in AMT 30, and "C" or better in AMT 40B*  
*CoReq: AMT 40C and AMT 46*  
 The service and repair of vehicle emission control systems and devices. (4 lec/lab hrs.)
- + AMT 60H—Diagnostic and Repair: Electrical/Fuel System and Related Components (3)**  
*PreReq: "C" or better in AMT 50, and "C" or better in AMT 53, and "C" or better in AMT 55*  
*CoReq: AMT 60I, AMT 60J, and AMT 60K*  
 The student will be exposed to different types of live auto repair jobs, but emphasis is placed on electrical/fuel systems and related components. (6 lec/lab hrs.)
- + AMT 60I—Diagnostic and Repair: Engines and Related Components (3)**  
*PreReq: "C" or better in AMT 50, and "C" or better in AMT 53, and "C" or better in AMT 55*  
*CoReq: AMT 60H, AMT 60J, and AMT 60K*  
 The student will be exposed to different types of live auto repair jobs, but emphasis is placed on engines and related components. (6 lec/lab hrs.)
- + AMT 60J—Diagnostic and Repair: Suspension/Brake and Related Components (3)**  
*PreReq: "C" or better in AMT 50, and "C" or better in AMT 53, and "C" or better in AMT 55*  
*CoReq: AMT 60H, AMT 60I, and AMT 60K*  
 The student will be exposed to different types of live auto repair jobs, but emphasis is placed on suspension/brake and related components. (6 lec/lab hrs.)
- + AMT 60K—Diagnostic and Repair: PowerTrain/Transmissions and Related Components (3)**  
*PreReq: "C" or better in AMT 50, and "C" or better in AMT 53, and "C" or better in AMT 55*  
*CoReq: AMT 60H, AMT 60I, and AMT 60J*  
 The student will be exposed to different types of live auto repair jobs, but emphasis is placed on power train/transmissions and related components. (6 lec/lab hrs.)
- AMT 80—Small Engine Repairs I (3)**  
 This course is designed to introduce the students to the field of small gasoline engine repair including an overview of job opportunities and skills required for a small engine repairman. An understanding of small engine technology shall be accomplished by exposing the student to basic principles and factory approved disassembly, inspection, and assembly. Emphasis is on shop safety, proper tool use and identification, and general construction and repair of small gasoline engines. (1 lec, 4 lec/lab hrs.)
- AMT 83—Chain Saw Repair (2)**  
 The Basic Chain Saw Repair course is designed to provide an understanding of chain saw technology by exposing the student to the basic principles of gasoline-powered chain saws with factory-approved disassembly and assembly procedures. (4 lec/lab hrs.)
- AMT 84—Small Engine II, Applications (3)**  
 This course will cover the applications of two- and four-cycle engines in various types of equipment. Classroom and laboratory experiences will include: 4-cycle Tecumesh, 2-cycle O & R engines, 2-cycle Sanshin engine, as well as other locally popular models. (6 lec/lab hrs.)
- AMT 85—Small Engine III, Advanced Repair (2)**  
 Theory of operation of two- and four-stroke cycle engines with practical experience in all aspects of their repair. Includes operating principles, carburetor and fuel systems, lubrication, ignition systems, cooling systems, mechanical construction, reconstruction, and troubleshooting. (4 lec/lab hrs.)
- AMT 86—Outboard Engine Repair (4)**  
*CoReq: AMT 80 (or prior completion)*  
 Course covers the theoretical and operational aspects of two- and four-cycle outboard engines, their maintenance and repair. Includes operating principles, carburetors, fuel systems, lubrication, cooling, mechanical construction of powerhead, and troubleshooting. (8 lec/lab hrs.)
- AMT 87—Advance Outboard Repair (4)**  
*PreReq: AMT 86*  
 Course covers advance work on powerheads, carburetors, fuel systems, lubrication systems, ignition systems; operating principles, troubleshooting, reconditioning, tune-up procedures, and proper use of test equipment. (8 lec/lab hrs.)
- AMT 101—Introduction to Automotive Technology and Safety (2)**  
*PreReq: "C" or better in Eng 20R or "C" or better in ESL 20R or placement in Eng 21 or placement in ESL 21; and "C" or better in Math 1ABCD or placement in Math 22 or placement in Math 50 or "C" or better in QM 80 or placement in QM 120T*  
*CoReq: AMT 120*  
 Covers the policies and procedures of the AMT program, various career opportunities in the automotive field, shop safety, nomenclature, proper use of technical reference manuals, and identifying and the proper use of basic hand tools, equipment and measuring tools. (4 lec/lab hrs.)
- AMT 120—Powertrain I (10)**  
*PreReq: "C" or better in Eng 20R or "C" or better in ESL 20R or placement in Eng 21 or placement in ESL 21; and "C" or better in Math 1ABCD or placement in Math 22 or placement in Math 50 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.)

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**Biochemistry**

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**BioC 241—Fundamentals of BioChemistry (3)**

*PreReq:* Math 26 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.)

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**Biology**

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+ 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 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—General 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 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—General Biology Laboratory (1)**

*CoReq:* Biol 101 (or prior completion)

Experiments and exercises to accompany Biology 101, General Biology. Survey of the functioning, diversity, evolution and ecology of living things at the molecular, cellular, organ system and ecosystem levels. (3 lab hrs.)

**Biol 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 102

*CoReq:* Biol 141L

*Recommended:* High school or college chemistry with lab; Microbiology preferred

Structure and function of the human body, including basic biochemistry, cells, and tissues. Includes detailed coverage of the integumentary, skeletal, muscular, digestive, respiratory and cardiovascular systems. (3 lec hrs.)

**+Biol 141L—Human Anatomy and Physiology I Lab (1)**

*CoReq:* Biol 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 in Biology 141. (3 lab hrs.)

**Biol 142—Human Anatomy and Physiology II (3)**

*PreReq:* "C" or better in Biol 141 or consent of instructor

*CoReq:* Biol 142L

*Recommended:* High school or college chemistry with lab; Microbiology preferred

Structure and function of the human body, including metabolism, fluid and electrolyte balance, and genetics. Includes detailed coverage of the urinary, nervous, endocrine and reproductive systems. (3 lec hrs.)

**+Biol 142L—Human Anatomy and Physiology II Lab (1)**

*CoReq:* Biol 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 Biology 142. (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

*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—Introductory Biology I (3)**

*CoReq:* Biol 171L

*Recommended:* BioC 241

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—Introductory Biology I Laboratory (1)**

*CoReq:* Biol 171

*Recommended:* High school Biology

Laboratory exercises will cover microscopy and cell structure, replication, and metabolism. Also exercises in classical and molecular genetics, and biodiversity of prokaryotes, virus, fungi and plants. (3 lab hrs.)

**Biol 172—Introductory 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—Introductory Biology II Laboratory (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 281—General Ecology (3)**

*PreReq: "C" or better in Biol 171 or "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.)

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**Blueprint Reading**

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Valid through Fall 2017

**Blpr 22—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.)

Effective Spring 2018

**Blpr 22—Blueprint Reading and Drafting (3)**

Deleted. (see Blpr 22B)

**Blpr 22B—Blueprint Reading and Drafting (3)**

Formerly Blpr 22

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 30B—Blueprint Reading for Welders (3)**

*PreReq: Blpr 30D*

Advanced principles of graphic presentation used in welding. Topics covered are sketching, notes and specifications, dimensioning, structural shapes, various types of views, preferred and nonpreferred welding symbols and abbreviations, and blueprints using metric measurements. (3 lec hrs.)

**Blpr 30C—Blueprint Reading for Electricians (3)**

*PreReq: Blpr 22 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 30D—Blueprint Reading for Machine Trades (3)**

Basic principles of graphic presentation used in machine trade drawings. The terminology and nomenclature, interpretation of working drawings, and sketching of shop drawings. (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.)

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**Botany**

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**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 102*

*CoReq: Bot 101L*

This is 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 102*

*CoReq: Bot 101*

This is 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—Introduction to 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 102*

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

**Bot 105L—Introduction to 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 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.)

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**Business (Bus)**

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**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*

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



## Business (Busn)

### Busn 89—Electronic Calculating (1)

This course gives students practice with real world skills used in the modern business environment; emphasizes proper technique and speed with the ten-key pad found on calculators, computer keyboards, and cash registers; develops the ability to work with numbers and use of a calculator to perform business computations. (1 lec hr.)

### 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 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)

*PreReq: "C" or better in Busn 121*

*Recommended: Ability to type 35 gwpm; and Eng 21 or ESL 21 or Eng 22 or (ESL 22G and ESL 22W) or placement in Eng 100 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 20R or "C" or better in ESL 20R or placement in Eng 21 or placement in ESL 21*

*Recommended: OAT 21BCD or Busn 121 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 151—Intermediate Business Computing (3)

*PreReq: "C" or better in Bus 104 or "C" or better in Busn 150 or "C" or better in ICS 101*

Expands the concepts of business computing introduced in Busn 150. Develops greater proficiency in creating, modifying, and printing documents, spreadsheets, database queries, reports and forms. Broadens knowledge of word processing, spreadsheet, database, and presentation software utilizing intermediate and advance level features of the software. Provides experience with typical business applications that utilize Intranet and Internet technologies. (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; and "C" or better in Eng 21 or "C" or better in ESL 21 or placement in Eng 102*

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; 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 20R or ESL 20R or placement in Eng 21 or placement in ESL 21; and Eng 20W or (ESL 20G and ESL 20W) or placement in Eng 22 or (placement in ESL 22G and placement in ESL 22W)*

*CoReq: Eng 21 or ESL 21 (or prior completion) or placement in Eng 102; and Eng 22 or (ESL 22G and ESL 22W) (or prior completion of either) or placement in Eng 100*

*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 166—Professional Employment Preparation (1)

Deleted.

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

*PreReq: Eng 20R or Eng 20W or ESL 20R or (ESL 20G and ESL 20W) 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; and "C" or better in Busn 121 or "C" or better in Busn 123*

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 20R or Eng 20W or ESL 20R or (ESL 20G and ESL 20W) 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 184—Medical Transcription (3)**

*PreReq:* "C" or better in Busn 121 or "C" or better in Busn 123; 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

*CoReq:* Nurs 110 (or prior completion)

*Recommended:* Ability to type at least 45 gwam (gross words a minute)

An introduction to medical office transcription in order to prepare medical documents, such as chart notes, diagnostic reports, consultations, office procedure notes, and correspondence. Students will learn how to identify correct terminology, spell and define terms, and prepare typical forms. (3 lec hrs.)

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

*PreReq:* "C" or better in Eng 20R or "C" or better in ESL 20R or placement in Eng 21 or placement in ESL 21; and "C" or better in Math 22 or placement in Math 24 or placement in Math 26 or placement in Math 76 or concurrent enrollment in QM 78B

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 189—Business Mathematics (3)**

*PreReq:* "C" or better in Eng 20R or "C" or better in ESL 20R or placement in Eng 21 or placement in ESL 21; and "C" or better in Math 22 or placement in Math 24 or placement in Math 26 or placement in Math 76 or concurrent enrollment in QM 78B

Introduces various accounting and finance computational procedures utilizing the calculator as a tool. Surveys concepts in algebra, logical structure, numeration systems, and statistics. Develops critical thinking skills in making personal and business decisions. (3 lec hrs.)

**Busn 193V—Cooperative Vocational 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.)

**Carpentry****Carp 20A—Basic Carpentry I (3)**

Deleted. (see Carp 50)

**Carp 21A—Basic Carpentry II (9)**

Deleted. (see Carp 51)

**Carp 22—Concrete Form Construction (12)**

Deleted. (see Carp 55)

**Carp 41—Rough Framing and Exterior Finish (12)**

Deleted. (see Carp 57)

**Carp 42—Finishing (12)**

Deleted. (see Carp 60)

**Carp 50—Basic Carpentry I (3)**

Formerly Carp 20A

*PreReq:* Eng 20R or ESL 20R or placement in Eng 21 or placement in ESL 21; and Math 1ABCD or placement in Math 22 or placement in Math 50

*CoReq:* Carp 51

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. (6 lec/lab hrs.)

**Carp 51—Basic Carpentry II (9)**

Formerly Carp 21A

*PreReq:* Eng 20R or ESL 20R or placement in Eng 21 or placement in ESL 21; and Math 1ABCD or placement in Math 22 or placement in Math 50

*CoReq:* Carp 50 (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. (18 lec/lab hrs.)

**Carp 55—Concrete Form Construction (12)**

Formerly Carp 22

*PreReq:* "C" or better in Carp 50 and "C" or better in Carp 51

This course is 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 57—Framing and Exterior Finish (12)**

Formerly Carp 41

*PreReq:* "C" or better in Carp 55

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 60—Finishing (12)

Formerly Carp 42

*PreReq:* “C” or better in Carp 57

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.)

## Chemistry

### 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 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 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 Laboratory (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 27 or “C” or better in Math 103 or placement in Math 110 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 Laboratory (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, 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.)

## Computing, Electronics, and Networking Technology

### CENT 140—Network 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 102

*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., 2 lec/lab hrs.)

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

*PreReq:* CENT 140

Course 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. This 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.)

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

*PreReq:* CENT 140

This course 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., 2 lec/lab hrs.)

### CENT 241—Accessing the WAN (3)

*PreReq:* CENT 240B and CENT 240C

This course 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.)

## Culinary Arts

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### **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 (1)**

*PreReq: Culn 111, Culn 112, and 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. (1 lec hr.)

### **Culn 120—Fundamentals of Cookery (6)**

*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. (3 lec hrs., 9 lab hrs.)

### **Culn 130—Intermediate Cookery (7)**

*PreReq: Culn 111, Culn 112, Culn 120, and Culn 170*

Provides the application and reinforcement of basic concepts, skills, and techniques introduced in Culn 120 (Fundamentals of Cookery) to the operation of the campus dining service with the emphasis on fresh, locally produced foods prepared in a healthful and attractive manner. Menu development, recipe standardization and conversion, mise en place of correct quantity, freshness, and completeness are stressed, along with correct, coordinated, and timely a la minute service. Teamwork, personal and station organization, consistency, and patron satisfaction are cultivated. (3 lec hrs., 12 lab hrs.)

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

*PreReq: Culn 111, Culn 112, and 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 140—Cold Food Pantry (4)**

*PreReq: Culn 111, Culn 112, and 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: Culn 111, Culn 112, and 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 (1-2)**

*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 220—Advanced Cookery (6)**

*PreReq: Culn 111, Culn 112, Culn 120, Culn 130, and 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. (3 lec hrs., 9 lab hrs.)

**Culn 240—Garde Manger (4)**

*PreReq: Culn 111, Culn 112, Culn 120, Culn 130, and 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: 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 bakery 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 (5)**

*PreReq: Culn 115, 131, 140, 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., 6 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*

*Recommended: ECEd 110 or Dnce 185 or FamR 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. (variable hours)

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## Diesel Mechanics

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+ Valid driver's license required.

**+ DiMc 20—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 30—Introduction to Electrical Systems (6)**

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

*CoReq: DiMc 33*

The theory and operation of heavy-duty truck and equipment electrical systems, maintenance and repair of electrical systems, shop safety/operation, component service and repair, electrical diagnostics equipment usage, and troubleshooting procedures. Other topics include: starting and charging systems and circuits. (12 lec/lab hrs.)

- + **DiMc 33—Introduction to Fuel Systems (6)**  
*PreReq: "C" or better in DiMc 20*  
*CoReq: DiMc 30*  
 The theory and operation of heavy-duty truck and equipment fuel systems, maintenance and repair of fuel systems, shop safety/operation, component service and repair, fuel system diagnostic equipment usage, and troubleshooting procedures. Covers a variety of diesel fuel injection systems used by the following manufacturers: Caterpillar, Detroit, Cummins, International, and Stanadyne. (12 lec/lab hrs.)
  
- + **DiMc 40—Introduction to PowerTrains (12)**  
*PreReq: "C" or better in DiMc 30 and "C" or better in DiMc 33*  
 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 drives. (24 lec/lab hrs.)
  
- + **DiMc 50—Heavy Duty Brakes, Steering, & Suspension (6)**  
*PreReq: "C" or better in DiMc 40*  
*CoReq: DiMc 55*  
 Covers the theory, operation and maintenance of heavy-duty truck and equipment. Topics include: brakes, steering and suspension systems, shop safety/operation, component service and repair, system schematic, diagnostic, and alignment. (12 lec/lab hrs.)
  
- + **DiMc 55—Hydraulic and Hydrostatic Systems (6)**  
*PreReq: "C" or better in DiMc 40*  
*CoReq: DiMc 50*  
 The theory and operation of hydraulic and hydrostatic systems, maintenance and repair of hydraulic/hydrostatic components, shop safety/operation, component service and repair. Topics also include: system schematic and diagnostic procedures. (12 lec/lab hrs.)

## 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*  
 Introduces and explores the historical roots and fundamental principles of early childhood care and programs, the variety and scope of programs in the community, issues confronting the field, and career options. (3 lec hrs.)
  
- ECED 110—Developmentally Appropriate Practices (3)**  
*PreReq: Eng 22 or (ESL 22G and ESL 22W) or placement in Eng 100*  
 Provides a practical guide and overview of the basic awareness, attitudes, knowledge and skills necessary for working with children birth through age eight. Introduces concepts of developmentally appropriate practices, the importance of play, and inclusion of 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*  
 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*  
 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*  
 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*  
 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*  
 This course begins with a survey of the history and contemporary issues and trends in early literacy development. It includes an in-depth exploration of how young children learn to read and write and what teachers and caregivers need to know and be able to do to support literacy development from birth through the primary years. (3 lec hrs.)
  
- ECED 170—Introduction to Infants and Toddlers (3)**  
*PreReq: Eng 22 or (ESL 22G and ESL 22W) or placement in Eng 100*  
 Provides an overview of the basic skills in working with infants and toddlers in groups. Focuses on interactive aspects of child development, infant-toddler caregiving routines and environments, caregiver roles, and ways to enrich experiences and to promote strong relationships with families. (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 consent of instructor*  
 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 for establishing effective partnership relationships with diverse families and other adults. 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*

*Recommended: ECed 110 or Dnce 185 or FamR 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*

Theoretical foundation and practice in the planning, implementation and assessment of the language arts and creative expression curriculum. Students must have regular contact with preschool children for implementation of course assignments in a setting approved by the instructor. (3 lec hrs.)

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

*PreReq: ECed 110 and ECed 131*

Theoretical foundation and practice in the planning, implementation and assessment of the inquiry and physical curriculum. Students must have regular contact with preschool children for implementation of course assignments in a setting approved by the instructor. (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 collaborative relationships that contribute to meeting the diverse needs of children in inclusive settings. Facilitates the development of skills to adapt and modify the learning environment and educational curriculum in line with developmentally appropriate practice. Introduces traditional and alternative assessment and identifies the skills necessary to facilitate successful transitions from early childhood setting to the elementary school. (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.)

## 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.*

Presents the basics of conducting business online and the technological issues associated with constructing an electronic commerce Web site. Students will learn how to implement an actual transaction-capable Web site, including various strategies and solutions available for the administration of E-Commerce sites and the integration of data into existing business infrastructure. (3 lec hrs.)

## 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*

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; and Math 25 or Math 26 or placement in Math 100 or placement in Math 103*

This course analyzes the market mechanism, prices, competition, and the efficient allocation of scarce resources. Formulates possible solutions to contemporary economic and social issues such as world food problems, poverty and distribution of income, market power of business including multinationals, role of labor unions, energy crisis, environmental pollution, consumerism, and welfare. (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; and Math 25 or Math 26 or placement in Math 100 or placement in Math 103*

This course analyzes the forces determining national and international economic performance in employment, inflation, production, money supply, and trade. Presents in historical context the modern economic situation. Describes relative roles of major economic institutions such as businesses, labor unions, government agencies, international organizations, and the banks. (3 lec hrs.)

## Electrical Installation and Maintenance Technology

### EIMT 20—Interior Wiring (12)

*PreReq: Eng 20R or ESL 20R 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 22 (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

### Etro 11—Electronics, Assembling and Packaging (2)

Deleted.

### Etro 120—Electronics I (5)

*PreReq: Eng 20R or ESL 20R 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—Electronics I Lab (2)

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

*CoReq: Math 66 (or prior completion); and 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—Electronics Fabrication and Assembly (2)

*CoReq: Etro 120 and Etro 120L (or prior completion of either); and Math 66 (or prior completion); and Etro 121L*

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. (2 lec hrs.)

### Etro 121L—Electronics Fabrication and Assembly Lab (2)

*CoReq: Etro 120 and Etro 120L (or prior completion of either); and Math 66 (or prior completion); and 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 project enclosures. (6 lab hrs.)



**Etro 122—Electronics II (5)**

*PreReq: Etro 120 and Etro 120L*

*CoReq: Etro 122L*

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—Electronics II Lab (2)**

*PreReq: Etro 120 and Etro 120L*

*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 143—Digital Electronics (3)**

*PreReq: Etro 120 and Etro 120L*

*CoReq: Etro 122 and Etro 122L (or prior completion of either); 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. (3 lec hrs.)

**Etro 143L—Digital Electronics Lab (1)**

*PreReq: Etro 120 and Etro 120L*

*CoReq: Etro 122 and Etro 122L (or prior completion of either); and Etro 143*

This course 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. (3 lab hrs.)

**Etro 160—Laser Safety and Applications (1)**

*PreReq: Eng 20R or ESL 20R or placement in Eng 21 or placement in ESL 21; and "C" or better in Math 66 or placement in Math 26*

Introduces students to laser applications and safety. Topics covered: physical properties of light and how it is used to generate laser beams for industry use; effects of laser radiation on the anatomy and physiology of the eyes and other human organs and protective measures to use; calculations and measurement of laser beam intensities to determine necessary safety measures. Hands-on experiments will familiarize users with proper use of lasers and safety practices. (1 lec hr.)

**Etro 161—Introduction to Optics and Photonics (3)**

*PreReq: "C" or better in Etro 160*

Introductory photonics course covering the physics of light, geometric optics, lenses, mirrors, polarizing lenses, interference/diffraction waves, laser physics, optical imaging and bio-photonics. Lab experiments and projects reinforce the theory and provide practical experience for those interested in pursuing a career in this field. (6 lec/lab hrs.)

**Etro 166—Introduction to Fiber Optics (3)**

*PreReq: Eng 20R or ESL 20R or placement in Eng 21 or placement in ESL 21; and "C" or better in Math 66 or placement in Math 26*

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 257—RF Communications (2)**

*PreReq: Etro 122 and Etro 122L*

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 280—Microprocessor Architecture, Programming, and Interfacing (3)**

*PreReq: Etro 143 and Etro 143L*

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—Computer Systems and Networking (3)**

*PreReq: Etro 143 and Etro 143L*

*CoReq: Etro 287L*

Course 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—Computer Systems and Networking Lab (1)**

*PreReq: Etro 143 and Etro 143L*

*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.)

## 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 placement in Eng 102; and Eng 22 or (ESL 22G and ESL 22W) or placement in Eng 100.

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

\* DOE-AEP: classes offered through the Department of Education - Academic Enhancement Program

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

## English

### Eng 18—Reading Fundamentals (3)

*PreReq: Placement in Eng 18*

A reading fundamentals course designed to develop reading comprehension, vocabulary acquisition, and study skills. Some activities will include building vocabulary skills through phonics, word structure, the dictionary, and context clues; improving comprehension by finding the main ideas, supporting details, and making inferences; and developing study skills by practicing time management and taking organized notes. (3 lec hrs.)

### Eng 19—Writing Fundamentals (3)

*PreReq: Placement in Eng 19*

Course concentrates on constructing effective sentences with correct sentence structure, grammar, word choice, punctuation, and spelling. Students will practice writing and editing paragraphs based on personal experiences. Students will also be introduced to a variety of study skills as a tool to increase their academic success. (3 lec hrs.)

### Eng 20R—Reading Essentials (3)

*PreReq: "C" or better in Eng 18 or placement in Eng 20R*

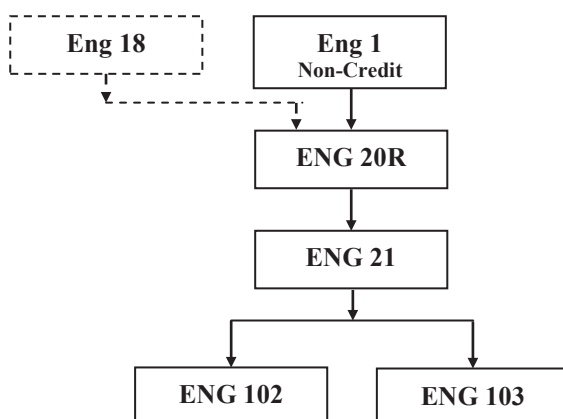
A reading and learning skills course designed to develop vocabulary, comprehension skills, and the ability to think clearly. Activities will include improving notetaking, textbook reading, independent lab work, and learning/study skills necessary for academic success. Writing will be used to promote reading and study skills. (3 lec hrs.)

### Eng 20W—Writing Essentials (3)

*PreReq: "C" or better in Eng 19 or placement in Eng 20W*

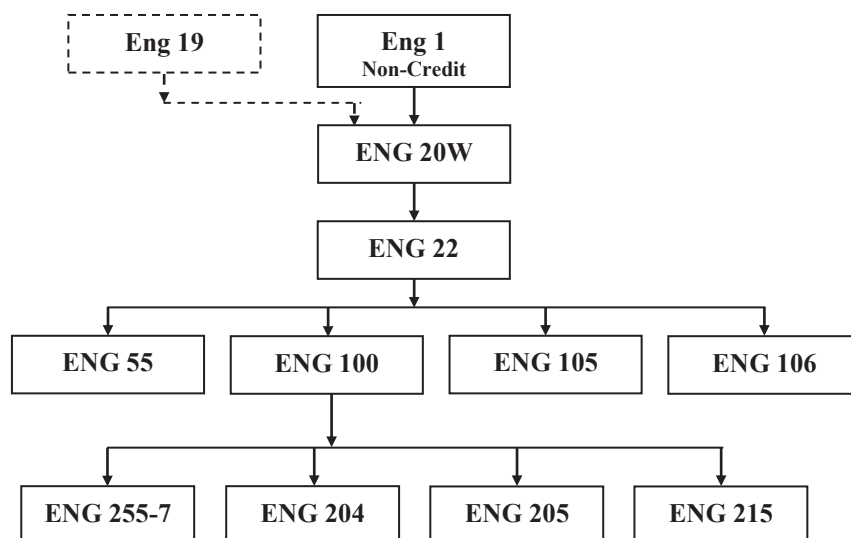
Instruction and practice in writing varied and effective sentences with correct sentence structure, grammar, word choice, punctuation, and spelling. Instruction and practice in writing and editing paragraphs which demonstrate proficiency in sentence skills. Exit examination required. (Not applicable to AA and AS degrees) (3 lec hrs.)

### Reading Progression



Dotted boxes show courses that may no longer be offered.

## Writing Progression



Dotted boxes show courses that may no longer be offered.

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

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

Reading to find main ideas and specific details, to draw inferences, and to develop critical judgment. Training to develop flexible reading rates, study skills, and vocabulary. Drill and practice in independent reading activities. (3 lec hrs.)

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

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

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

### Eng 55—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; and "C" or better in Busn 121 or "C" or better in Busn 123*

A course in writing purposeful, effective business letters through experience in analyzing problem situations. Fundamentals of written communication skills will be emphasized. (3 lec hrs.)

### 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*

*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 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 20W or (ESL 20G and ESL 20W) 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: problem solving skills, reading and interpreting literature, college vocabulary, study skills, library research skills, and speed reading skills to become a flexible reader. (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*

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*

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

Introduces students to the study of film techniques, types, and interpretation. Using a variety of films, especially those with a connection to Hawai'i, the course surveys a wide range of topics, including cinematography, editing, genre, production, history and analysis. Fictional films and their alternatives including the documentary will be studied to develop visual literacy - the ability to read moving images. (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  
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  
*Recommended:* Eng 102  
Students will practice writing poems, scenes, and short stories. Includes creative writing assignments and discussions of each student’s writing. May be repeated for credit, up to 9 credits. (3 lec hrs.)

**Eng 205—News Writing (3)**  
Cross-listed as Jour 205  
*PreReq:* “C” or better in Eng 100; and “C” or better in Eng 102  
*Recommended:* Knowledge of word processing  
An introductory course in writing, newsgathering, editing, and journalistic ethics. Covers the basics of writing for publication in newspapers, magazines, and the Internet. (3 lec hrs.)

**Eng 215—Research Writing for Humanities and Social Sciences (3)**  
*PreReq:* “C” or better in Eng 100; 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  
*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  
*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  
*Recommended:* Eng 102  
This course introduces students to persistent themes that appear in the English language literature of 19th and 20th century 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.)

**Eng 257E—Themes in Literature: Multi-Cultural Literature (3)**  
*PreReq:* Eng 100  
*Recommended:* Eng 102  
This course is a multi-cultural literature course designed for students who want to learn more about the various ethnic groups in the U.S. through analysis of various literary works. In addition, the course will focus on how various ethnic groups have felt the impact of other cultures, especially the Euro-centric, in the economic, educational, historical, religious and social areas. This course will also show how certain themes, such as the family, cultural heritage, community assimilation, and the spiritual are reflected in the selected literature. (3 lec hrs.)

## English as a Second Language

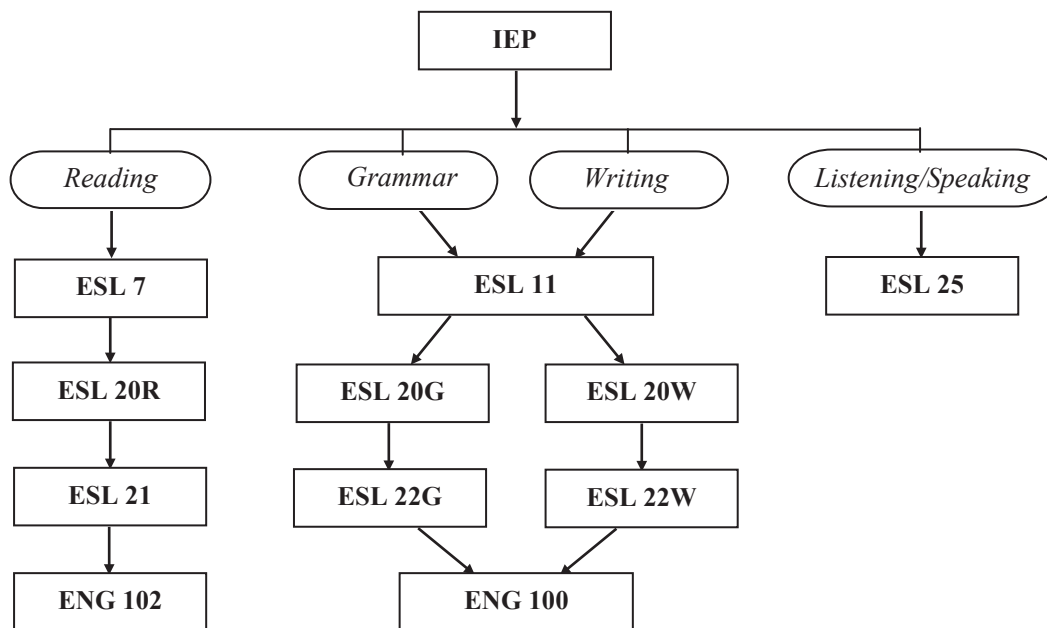
**ESL 7—Reading and Study Skills I (3)**  
*PreReq:* Placement in ESL 7 and placement in ESL 11  
*CoReq:* ESL 11 and ESL 25 (or prior completion of either)  
This course is the first in a two-level general reading program focusing on reading comprehension, vocabulary development, and study skills for non-native speakers of English. This course provides students with the necessary foundation in reading skills for liberal arts and occupational/technical study. Students must have the ability to understand classroom instruction and read simple directions in English to take this class. *Additional time in the reading lab is required.* (3 lec hrs.)

**ESL 11—Basic Grammar and Writing (5)**  
*PreReq:* Placement in ESL 7 and placement in ESL 11  
*CoReq:* ESL 7 or ESL 25 (or prior completion of either)  
This is a foundations course in grammar and writing for non-native speakers of English. It emphasizes basic grammar, sentence structure, and paragraph writing. Students must have the ability to understand classroom instruction and read simple directions in English to take this class. *Additional time in the ESL lab is required.* (5 lec hrs.)

**ESL 20G—Grammar Essentials (ESL) (3)**  
*PreReq:* “C” or better in ESL 11 or “C” or better in Eng 19 or (placement in ESL 20G and placement in ESL 20W) or placement in Eng 20W  
ESL 20G focuses on the skills needed to become a proficient writer of English. In this course, students build upon skills that they already have by developing sentence structure, grammar, word choice, punctuation, and spelling. *Additional time in the ESL lab is required.* (3 lec hrs.)

**ESL 20R—Reading Essentials (ESL) (4)**  
*PreReq:* “C” or better in ESL 7 or “C” or better in Eng 18 or placement in ESL 20R or placement in Eng 20R  
ESL 20R focuses on the skills needed to become a proficient reader of English. This course concentrates on strategies that facilitate reading comprehension and vocabulary development. *Additional time in the ESL lab is required.* (4 lec hrs.)

## ESL Progression Chart



### ESL 20W—Writing Essentials (ESL) (3)

*PreReq:* “C” or better in ESL 11 or “C” or better in Eng 19 or (placement in ESL 20G and placement in ESL 20W) or placement in Eng 20W  
*CoReq:* ESL 20G (or prior completion)

ESL 20W offers instruction and practice in writing varied and effective sentences, paragraphs, and basic essays. Students will learn to utilize the writing process and apply it to writing well-organized paragraphs and essays. Students will participate in peer review sessions in order to receive feedback to enable them to further review, edit, proofread, and revise their paragraphs and essays. *Additional time in the ESL lab is required.* (3 lec hrs.)

### ESL 21—Introduction to College Reading (ESL) (4)

*PreReq:* “C” or better in ESL 20R or “C” or better in Eng 20R 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. *Additional time in the ESL lab is required.* (4 lec hrs.)

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

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

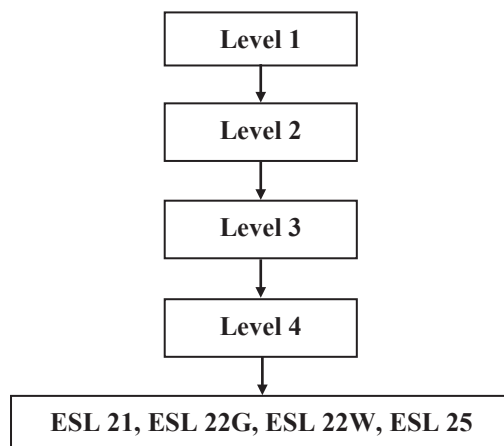
ESL 22G is an advanced-level course in which students acquire knowledge of grammar essential for successful academic writing. As grammar points are presented, students apply the grammar they learn by editing passages from varied texts, including student writing and their own drafts. The class focus is 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. *Additional time in the ESL lab is required.* (3 lec hrs.)

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

*PreReq:* “C” or better in ESL 20R or “C” or better in Eng 20R or placement in ESL 21 or placement in Eng 21; and “C” or better in ESL 20G or “C” or better in Eng 20W or placement in ESL 22G or placement in Eng 22; and “C” or better in ESL 20W or “C” or better in Eng 20W 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. *Additional time in the ESL lab is required.* (3 lec hrs.)

## IEP (ESOL) Progression



### ESL 25—Academic Listening and Speaking (3)

*PreReq:* Placement in ESL 7 and placement in ESL 11

This course is designed to improve the communication skills of non-native speakers of English. It includes instruction and practice in academic listening comprehension, lecture note taking, small group and public speaking, and pronunciation. Students must have the ability to understand classroom instruction and read simple directions in English to take this class. (3 lec hrs.)

### Entrepreneurship

#### Ent 120—Starting a Small 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 102

This course is a practical approach to planning and starting a business in Hawai‘i. The student will prepare a comprehensive business plan. Topics covered are market analysis, site selection, suppliers, product and price mix, transportation, advertising and promotion, record keeping, and financial statements. (3 lec hrs.)

### Family Resources

#### FamR 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

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.)

### Fire and Environmental Emergency Response

#### 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 105—Emergency Medical Technician (7)

*PreReq:* Fire 210

*CoReq:* Fire 106

*Recommended:* American Heart Association CPR certification

Provides students with theory and laboratory practice of basic life support skills (IV, Defibrillation 12 lead EKG skills are the only advanced life support skills taught. These skills are required by the state of Hawai‘i to be taught in an EMT licensure program, and can only be performed with a MICT present) and procedures in the pre-hospital setting. Focuses on basic airway and circulatory management, assessment and treatment of medical and trauma related emergencies, pathophysiology, basic pharmacology, and mass casualty triage. Meets the curriculum standards set forth by the National Highway Traffic Safety Administration (NHTSA). (14 lec/lab hrs.)

**Fire 106—Emergency Medical Technician Practicum (6)**

*PreReq: Fire 210*

*CoReq: Fire 105*

*Recommended: American Heart Association CPR certification*

Provides students with opportunities to apply EMT knowledge and skills in the setting of ambulances, hospitals, and clinics. (12 lec/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 25 or "C" or better in Math 26 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.)

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## Geography

+ 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.

### +Geog 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 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.)

### +Geog 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 102*

*CoReq: Geog 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.)

### Geog 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 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.)

### Geog 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 102*

This course will survey 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.)

### Geog 170—Forest Ecosystem Surveying, Inventorying, and Monitoring (3)

*PreReq: "C" or better in Eng 100 or "C" or better in Eng 102; and "C" or better in Math 120; and "C" or better in ICS 101 or "C" in Busn 150*

*CoReq: Geog 170L*

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.)

### Geog 170L—Forest Ecosystem Surveying, Inventorying, and Monitoring Laboratory (1)

*CoReq: Geog 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.)

### Geog 180—Geographic Information Systems in Forest Ecosystem Management (3)

*PreReq: "C" or better in Geog 170; and "C" or better in Geog 170L; and "C" or better in Eng 100*

*CoReq: Geog 180L*

Designed for students in Forest TEAM and related careers. Geographic Information Systems will introduce students to GIS principles and practice through use of ArcView and Spatial Analyst. GIS will be applied in developing computer generated map layers for resource management decision making in forest ecosystems and agroforestry. (3 lec hrs.)

### Geog 180L—Geographic Information System in Forest Ecosystem Management Laboratory (1)

*CoReq: Geog 180*

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.)

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## Geology and Geophysics

### GG 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 102*

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

### GG 101L—Introduction to Geology Laboratory (1)

*CoReq: GG 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 GG 101. (3 lab hrs.)

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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 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**

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**HwSt 100—Piko Hawai'i (3)**

This introductory course provides the learner with a first hand opportunity to develop a relationship with the sacred geography of Hawai'i Island. To develop an environmental kinship with the places and people of Hawai'i Island embeds the idea of belonging to the landscape. This concept is central to Hawai'i Life Styles. (3 lec hrs.)

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

Investigates aspects of spirituality that connect with the belief and practices of Kanaka Maoli (Native Hawai'i people). Examines cultural knowledge and practices linked to perspectives of creation accounts, spiritual realms, deities, 'aumakua kahuna, places of worship, and other facets of native Hawai'i spirituality. (3 lec hrs.)

**HwSt 103—Hawai'i Art Culture (1)**

A hands on approach to learning Hawai'i cultural art forms. Emphasis is on process and protocol. Lab fee may be required. May be repeated for credit provided that a different topic is studied, up to 6 credits. (1 lec hr.)

**HwSt 104—Hawai'i Myth Culture (3)**

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 105—Hawai'i Plant Culture (3)**

An introductory course to the study of Hawai'i plants, and their functions and uses within a Hawai'i cultural context. Learners are expected to participate in multi-sensory learning. (3 lec hrs.)

**HwSt 106—Mele Hawai'i (3)**

An introductory course in the study of mele Hawai'i or Hawai'i oral arts. Students are expected to participate in all learning opportunities by learning and performing mele. (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 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: 'Aiha'a (3)**

An introductory course in hula. Studies the foundations of hula chants and dances as a sacred dance form. Through traditional hālau hula (hula school) traditions, structure, rituals, and belief, this course prepares the learner for public demonstration. (3 lec hrs.)

**HwSt 131—Hula II: 'Olapa (3)**

*PreReq: "C" or better in HwSt 130; and Eng 18 or (ESL 7 and ESL 11) or Eng 19 or placement in Eng 20R or placement in Eng 20W or placement in ESL 20R or (placement in ESL 20G and placement in ESL 20W); and Math 1ABCD or placement in Math 22 or placement in Math 26 or placement in Math 76*

This second course in the hula series introduces the learner to the evolution and practice of hula culture of the mid to late 19th century. Through traditional hālau hula (hula school) traditions, emphasis is placed on the development of personal hula etiquette and public demonstration and articulation of learning. (3 lec hrs.)

**HwSt 140—Mahi'ai I: Kanu'ai (3)**

The first mahi'ai course in a series of four in Hawai'i cultivation practices. The first mahi'ai course in a series of four in Hawai'i cultivation practices. Covers the history, lore, and geographically specific methods of mahi'ai. Emphasis on the cultivation of kalo and related staple foods. (3 lec hrs.)

**HwSt 141—Mahi'ai II: 'Au'ai (3)**

*PreReq: "C" or better in HwSt 140; and Eng 18 or (ESL 7 and ESL 11) or Eng 19 or placement in Eng 20R or placement in Eng 20W or placement in ESL 20R or (placement in ESL 20G and placement in ESL 20W); and Math 1ABCD or placement in Math 22 or placement in Math 26 or placement in Math 76*

The second mahi'ai course in a series of four in Hawai'i cultivation practices. It continues the look at the history, lore, and methods of mahi'ai. The emphasis on cultivation of kalo and related staple foods continues. (3 lec hrs.)

**HwSt 150—Lawai'a I: Ku'ula Kai (3)**

The first in a series of courses in traditional Hawai'i marine resource knowledge. Will engage the learner in traditional Hawai'i thought and practice concerning the subsistence and environmentally respectful practice of fishing. (3 lec hrs.)

**HwSt 151—Lawai'a II: Kaneloa (3)**

*PreReq: "C" or better in HwSt 150; and Eng 18 or (ESL 7 and ESL 11) or Eng 19 or placement in Eng 20R or placement in Eng 20W or placement in ESL 20R or (placement in ESL 20G and placement in ESL 20W); and Math 1ABCD or placement in Math 22 or placement in Math 26 or placement in Math 76*

The second in a series of courses in traditional Hawai'i marine resource knowledge, or Lawai'a. Course continues to engage the learner in traditional Hawai'i thought and practice concerning fishing with an added emphasis on wai (fresh water resources) and kai (sea water resources). (3 lec hrs.)

**HwSt 160—Kahu Ku‘una I: Introduction to Hawai‘i Stewardship (3)**

An introduction to Hawai‘i stewardship methods as practiced through Hawai‘i Island perspectives and traditions. The first in a series that will initiate the learner to the practice and profession of cultural and natural resource stewardship. (3 lec hrs.)

**HwSt 161—Kahu Ku‘una II: Foundations of Hawai‘i Stewardship (3)**

*PreReq: “C” or better in HwSt 160; and Eng 18 or (ESL 7 and ESL 11) or Eng 19 or placement in Eng 20R or placement in Eng 20W or placement in ESL 20R or (placement in ESL 20G and placement in ESL 20W); and Math 1ABCD or placement in Math 22 or placement in Math 26 or placement in Math 76*

The second in a series of four classes providing learners with opportunities to broaden their understanding of Hawai‘i stewardship practices. With a focus on a historical timeline, this course explores the foundations of Hawai‘i stewardship practices pre- and post-1819 and its evolution. (3 lec hrs.)

**HwSt 201—Hawai‘i Culture II: ‘Ai Noa (3)**

A study of the significant historical events in Hawai‘i, from the abolition of the kapu system in 1819 to the present, that transformed its native people and their culture. Examines the issues facing Native Hawaiians in today’s society. (3 lec hrs.)

**HwSt 204—Ka‘ao: Epic Foundations (3)**

*PreReq: HwSt 104; and 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.)

**HwSt 206—Hawai‘i Oral Arts (3)**

*PreReq: “C” or better in HwSt 106; and “C” or better in Haw 102 or higher*  
An in-depth, experiential study and application of Hawai‘i oral arts through poetics, myth, and chant. (3 lec hrs.)

**HwSt 219—Hawai‘i Island Cultural Sites (3)**

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 20R or Eng 20W or ESL 20R or (ESL 20G and ESL 20W) 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 Math 22 or placement in Math 24 or placement in Math 26 or placement in Math 76*

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 102; and “B” or better in Math 22 or Math 24 or placement in Math 26 or placement in Math 76*

*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 240—Mahi‘ai III: Huki‘ai (3)**

*PreReq: “C” or better in HwSt 141; and Eng 20R or Eng 20W or ESL 20R or (ESL 20G and ESL 20W) 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 Math 22 or placement in Math 24 or placement in Math 26 or placement in Math 76*

The third in a series of four courses in Hawai‘i cultivation practice. Emphasis on the harvest of kalo and related staple foods and preparation of mala‘ai (dryland) and lo‘i (wetland) patches for replanting. (3 lec hrs.)

**HwSt 241—Mahi‘ai IV: Ku‘i‘ai (4)**

*PreReq: “C” or better in HwSt 240; and Eng 21 or ESL 21 or Eng 22 or (ESL 22G and ESL 22W) or placement in Eng 100 or placement in Eng 102; and “B” or better in Math 22 or Math 24 or placement in Math 26 or placement in Math 76; and consent of instructor*

The capstone mahi‘ai course in a series of four in Hawai‘i cultivation practices. Review of previously learned material. Emphasis on the preparation of kalo and related staple foods for consumption. (4 lec hrs.)

**HwSt 250—Lawai‘a III: Loko I‘a (3)**

*PreReq: “C” or better in HwSt 151; and Eng 20R or Eng 20W or ESL 20R or (ESL 20G and ESL 20W) 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 Math 22 or placement in Math 24 or placement in Math 26 or placement in Math 76; and consent of instructor*

The third in a series of four courses in traditional Hawai‘i marine life knowledge and practice. Focus is on practice of traditional Loko I‘a from the construction to harvest. Special emphasis on the varieties of Loko I‘a found island/state wide. (3 lec hrs.)

**HwSt 251—Lawai‘a IV: Kipapalauulu (4)**

*PreReq: “C” or better in HwSt 250; and Eng 21 or ESL 21 or Eng 22 or (ESL 22G and ESL 22W) or placement in Eng 100 or placement in Eng 102; and “B” or better in Math 22 or Math 24 or placement in Math 26; and consent of instructor*

The capstone course in a series of four courses in the Lawai‘a track. Course is a culmination of all previous work in the Lawai‘a track with the specific focus on the learner’s active engagement in the community. Learners will be expected to apply all previously learned material in an active, participatory project in their communities. (4 lec hrs.)

**HwSt 260—Hawai‘i Stewardship: Protocols (3)**

*PreReq: “C” or better in HwSt 141 or “C” or better in HwSt 151 or “C” or better in HwSt 161; and consent of instructor*

Focuses on the development and preparation of land and ocean protocols necessary for engagement of fieldwork in the Hawai‘i environment. (3 lec hrs.)

**HwSt 261—Hawai'i Stewardship in Practice (4)**

*PreReq: "C" or better in HwSt 260; and Eng 21 or ESL 21 or Eng 22 or (ESL 22G and ESL 22W) or placement in Eng 100 or placement in Eng 102; and "B" or better in Math 22 or Math 24 or placement in Math 26*

Provides learners with opportunities to demonstrate their proficiency in Hawai'i Stewardship. (4 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 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, 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 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 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 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 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 102*

*Recommended: Hist 151*

A survey of Asian civilization from earliest times and traditional society to contact with the West with emphasis upon the cultures of China, Japan, Korea, Southeast Asia. (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 102*

A survey of Asian civilizations from the time of contact with the West, and the response of these civilizations to the impact of the Western World. This course is part of a two term sequence: 241: to 1500; 242: from 1500. (3 lec hrs.)

**Hist 274—Writing Personal History (3)**

*PreReq: Hist 151 or Hist 152 or Hist 153 or Hist 154; and Eng 100*

A 'personal history' course focusing on the study and writing of biography/autobiography, family/genealogy, local/ahupua'a, and regional history. (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 102*

A general survey of economic, political, and social history of Hawai'i from earliest times to present. (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 102; and Hist 152*

A survey of the history of the Pacific Islands from earliest settlement to the present with emphasis on island culture, interaction with the West, colonization, modern development and contemporary problems. (3 lec hrs.)

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## Hospitality and Tourism

**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)**

*Recommended: ESL 25 for English as a Second Language students*  
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: Eng 18 or ESL 7 or placement in Eng 20R or placement in ESL 20R or higher*

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)*

*Recommended: Completion of 2 semesters of study in the Hospitality and Tourism program.*

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*

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—Meeting, Convention Management (3)**

*CoReq: HosT 101 (or prior completion)*

Prepares students to plan and administer successful meetings and conventions. Students explore topics such as: marketing, sales and service, channels of distribution, and organization, as well as catering and meeting technology. (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 290—Hospitality Management (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*

*CoReq: HosT 101 or Culn 111 (or prior completion of either)*

A study of the management process in hospitality operations, focusing on the managerial functions of planning, organizing, coordinating, staffing, directing, controlling, and evaluating to bring about organizational effectiveness. Scenarios, case studies, and role playing exercises typical of the hospitality industry have been developed to reinforce principles. (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: HosT 101, HosT 258, HosT 265, and 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

**HD 234—Aging (3)**

The emotional, physical, and social processes of aging. (3 lec hrs.)

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## Human Services

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

Cross-listed with 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*

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 140—Individual Counseling (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 102*

*CoReq: HSer 110 (or prior completion)*

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 193—Human Services Practicum I (3)**

*PreReq: HSer 110*

Supervised experience in human services providing counseling, practical support, education, information and/or care-giving in community agencies in the local community. (2 lec hrs., 3 lab hrs.)

**HSer 230—Prevention Specialist (3)**

Cross-listed with AJ 230 and Subs 230

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

*Recommended: AJ 210 or HSer 110 or HSer/Subs 245*

This course provides education and training for students interested in pursuing careers as community-based Prevention Specialists, and 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/HSer/Subs 230 with a "C" or better grade 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 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 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*

Provides knowledge and practical skills to become competent case managers in human services agencies. Develops professional skills in order to teach those who need assistance to manage their own lives within the scope of their resources and abilities. Presents culturally sensitive strategies and strength-based model of case management. Special attention given to diverse populations utilizing case management systems. (3 lec hrs.)

**HSer 256—Dynamics of Family Violence and Sex Assault (3)**

Cross-listed as AJ 256 and WS 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*

Focuses on domestic violence and child abuse. The cycle of violence, causes, effects, and symptoms of child abuse will be explored. Legal, public policy, criminal justice, health and social services responses, and interventions to family, child, and intimate partner abuse will be examined. (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*

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 293—Human Services Practicum II (3)**

*PreReq: HSer 110 and HSer 193*

A continuation of HSer 193 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. (2 lec hrs., 3 lab hrs.)

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## Humanities

**Hum 100—Introduction to the Arts (3)**

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

Cross-listed as Psy 275

*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

**IEdB 20—Careers in Building and Construction (3)**

*Recommended: Eng 20R or ESL 20R 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 20R or ESL 20R or placement in Eng 21 or placement in ESL 21; and “C” or better in Math 1ABCD or placement in Math 22 or placement in Math 50*

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 (4)

*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; and placement in Math 26 or placement in Math 76*

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., 2 lec/lab hrs.)

### ICS 281—Ethical Hacking (3)

*PreReq: “C” or better in ITS 215 and “C” or better in ITS 221 and “C” or better in ITS 284*

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 215 and “C” or better in ITS 221 and “C” or better in ITS 284*

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 103—Introduction to the Programming Process (4)

*CoReq: ICS 101 (or prior completion with a “C” or better)*

A first course emphasizing the development of problem solving and logical skills required to program in a business environment. Algorithms and programs are designed and implemented in the structured procedural style. Basic debugging and documentation techniques are also covered. (3 lec hrs., 2 lec/lab hrs.)

### ITS 104—Computer Hardware Support (4)

*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., 2 lec/lab hrs.)

### ITS 108—Computer Software Support (3)

*CoReq: ICS 101 (or prior completion)*

The second course in computer support intended to provide the skills needed to prepare the student to support personal computer operating systems. The course prepares the student to address the most common PC operating system concerns. This course includes both concepts and hands-on real-world experience. (3 lec hrs.)

### ITS 118—Visual Programming for Business Applications (4)

*PreReq: “C” or better in ICS 101 and “C” or better in ITS 103*

A second course in programming introducing the development of business applications. Event-driven programming and object-oriented concepts are covered utilizing a current popular visual language such as Java, Python, C++, PHP, etc. Programming constructs, practices, and style are emphasized as well as program testing, debugging and documentation. (3 lec hrs., 2 lec/lab hrs.)

### ITS 121—Computing Topics (3)

*PreReq: variable per topic*

Introductory topics varying semester to semester to maintain currency with rapidly changing technologies in Hawaii’s business industry. Topics may include operating systems, specific hardware systems, other software packages and programming languages not covered in IT program courses. May be repeated for credit provided that a different topic is studied. (3 lec hrs.)

### ITS 151—Applied Database Programming in an Object Oriented Environment (4)

*PreReq: “C” or better in ITS 118*

This is a course in developing interactive Database Management Systems (DBMS) in an Object Oriented Database Environment. This requires experience with object oriented programming in an interactive mode. Application requirements are explained through presentation of a set of data structures, or logical schema, for sample applications. Structured programming techniques, good programming style, and event driven programming emphasized. Students will develop complete event driven menu based database systems. (3 lec hrs., 2 lec/lab hrs.)

### ITS 215—Network Administration (4)

*PreReq: ICS 101; and ITS 121*

The setup and operation of a local area network utilizing Microsoft Windows Server network operating system. Managing hardware, software, file systems, user accounts, and security. System management for performance optimization, name space, protocol support, and preventative maintenance. (3 lec hrs., 2 lec/lab hrs.)

### ITS 218—Help Desk Support (3)

*PreReq: ITS 108*

Provides an introduction to the wide range of topics required of an entry-level user support specialist. The responsibilities of support positions vary widely, and with the broad foundation of topics covered in this course, specialists entering the support industry will be ready to meet employer needs. Emphasizes the knowledge, skills and abilities commonly found in user support position descriptions and on the tasks employers expect support staff to be able to perform. (3 lec hrs.)

### ITS 221—Advanced Computing Topics (3)

*PreReq: variable per topic*

Advanced topics varying semester to semester to maintain currency with rapidly changing technologies in Hawai'i's business industry. Topics may include advanced courses in programming languages or networking, systems analysis, electronic commerce and other topics as they emerge. May be repeated for credit provided that a different topic is studied. (3 lec hrs.)

### ITS 284—Data Communications Fundamentals (3)

*PreReq: "C" or better in ITS 215*

Familiarizing students with the terms and concepts used in the computer networking industry. Providing them with a conceptual framework of data communications. Assisting students to understand computer networks and enabling them to make informed decisions on network design and technology. (3 lec hrs.)

### ITS 293—IT Program Internship (3)

*PreReq: "C" or better in ITS 151 and "C" or better in ITS 215 and "C" or better in ITS 218; and Eng 100; and SpCo 151*

Cooperative internship integrating classroom learning with supervised, structured and unstructured work experience. Offers an opportunity to enhance workplace soft skills as well as technical skills. Assignments determined by students' interests, program content and job availability. (1 lec hr., 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 105—Career/Life Exploration and Planning (3)

*PreReq: Eng 20R or ESL 20R 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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### Jpns 101—Elementary Japanese I (4)

Introductory Japanese language course, emphasizing reading, writing, speaking, and listening. (4 lec hrs.)

### Jpns 102—Elementary Japanese II (4)

*PreReq: Jpns 101*

Continuation of Jpns 101. The study of the basic structure of the Japanese language with emphasis on listening, speaking, reading and writing skills. (4 lec hrs.)

### Jpns 121—Elementary Japanese Conversation I (3)

Development of conversational skills—listening, comprehension, and speaking—for persons in business or occupations dealing with Japanese-speaking clientele. (3 lec hrs.)

### Jpns 122—Elementary Japanese Conversation II (3)

*PreReq: Jpns 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.)

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## Journalism

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### Jour 205—News Writing (3)

Cross-listed as Eng 205

*PreReq: "C" or better in Eng 100; and "C" or better in Eng 102*

*Recommended: Knowledge of word processing*

An introductory course in writing, newsgathering, editing, and journalistic ethics. Covers the basics of writing for publication in newspapers, magazines, and the Internet. (3 lec hrs.)

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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 20R or Eng 20W or ESL 20R or (ESL 20G and ESL 20W) 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.)

## **Linguistics**

### **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*

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*

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; 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.)

## **Machine, Welding, and Industrial Mechanics**

### **MWIM 42—Introduction to Machine and Welding (8)**

*CoReq: MWIM 45*

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 45—Introduction to Arc Welding (4)**

*CoReq: MWIM 42*

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 52—Sheet Metal Machining (8)**

*PreReq: MWIM 42 and MWIM 45*

*CoReq: MWIM 55*

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 55—Intermediate Welding and Qualification Procedures (4)**

*PreReq: MWIM 45*

*CoReq: MWIM 52*

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 62—Lathe Facing and Knurling (4)**

*PreReq: MWIM 52 and MWIM 55*

*CoReq: MWIM 65*

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 65—Advanced Welding (8)**

*CoReq: MWIM 62*

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 72—Introduction to CNC Milling (4)**

*PreReq: MWIM 62 and MWIM 65*

*CoReq: MWIM 75*

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 75—Special Process Welding & Rigging (8)**

*CoReq: MWIM 72*

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 20—Introduction to Management (3)**

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

An introduction to the management process. Principal functions of planning, organizing, directing, and controlling are integrated with behavioral concepts. (3 lec hrs.)

**Mgt 124—Principles of Supervision (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 102*

To enhance the understanding of the supervisory process and the management of human resources. Focuses on supervisory position function, activities, and topics for supervisors to understand and apply. (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 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)**

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

Marketing topics varying semester to semester to maintain currency with the dynamic nature of a global marketplace. Topics may include marketing research, fundamentals of purchasing, fundamentals of inventory management and control, international marketing, and other marketing topics deemed relevant. (3 lec hrs.)

**Mkt 130—Principles of Retailing (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 102*

An introduction to principles and practices in retailing and its impact on the economy. Emphasis on different retail venues, career opportunities, retail operations, and merchandise management. (3 lec hrs.)

**Mkt 151—Principles of Customer Service (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 102*

Course builds and maintains the critical skills and understanding necessary to be a dynamic and successful member of today's rapidly growing service economy. Students will gain insight into customer behavior and attitudes and will develop strategies to create positive customer relationships encountered in various situations on the job. (3 lec hrs.)

**Mkt 157—Principles of Web Design 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 102*

*Recommended: Basic knowledge of and experience with PCs, application software, and the Internet.*

Introduces students to the basic design and construction of a Web site in relation to best practices. Review of Internet history, concepts, and terminology. Hands-on activities include exposure to asset creation tools, but will focus on Web elements, layout and design, production tools, and user interface. Students will be taken through the process of constructing a Web site from start to finish. (3 lec hrs.)

**Mkt 185—Principles of E-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 102*

Conducting business in today's digital age means using the Internet and other forms of digital sales and marketing. This course provides the foundation for marketing using the Internet. Course work includes managing e-Commerce through customer service, interfacing with customers by e-mail, understanding the digital mentality and netiquette, fulfilling e-Commerce orders, what not to do online, and thriving in the virtual international marketplace. (3 lec hrs.)

**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 292—Integrated Marketing Projects (3)**

*PreReq: Mkt 120, Mkt 157, and Mkt 185*

Reinforces skills, theories, and concepts learned in Marketing courses. Provides students with the opportunity to apply their skills, knowledge, and understanding to develop and complete selected Marketing situation simulations and projects. (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, Chem 100 requires Eng 21 or Eng 22 or (ESL 22G and ESL 22W) or placement in Eng 100 or placement in Eng 102; and Math 22 or placement in Math 26.

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

\* DOE-AEP: classes offered through the Department of Education - Academic Enhancement Program

### **Mathematics**

#### **Math 1A—Basic Mathematics A (1)**

*PreReq: Placement in Math 1*

*CoReq: Math 1B and Math 1C and Math 1D*

Students will review the procedures used to solve problems involving whole numbers. Covers addition, subtraction, multiplication, and division of whole numbers; exponential notation; and order of operations. Other topics included are estimations, factorization, divisibility, and determining least common multiples. (1 lec hr.)

#### **Math 1B—Basic Mathematics B (1)**

*PreReq: Placement in Math 1*

*CoReq: Math 1A and Math 1C and Math 1D*

Students will review the procedures used to solve problems involving fractions. Covers addition, subtraction, multiplication, and division of fractions; concepts of fractions; order; exponentiation; and order of operations. (1 lec hr.)

#### **Math 1C—Basic Mathematics C (1)**

*PreReq: Placement in Math 1*

*CoReq: Math 1A and Math 1B and Math 1D*

Students will review the procedures used to solve problems involving decimals. Covers addition, subtraction, multiplication, and division of decimals; concepts of decimals; rounding decimals; converting fractions to decimals; converting decimals to fractions; and order of operations. (1 lec hr.)

#### **Math 1D—Basic Mathematics D (1)**

*PreReq: Placement in Math 1*

*CoReq: Math 1A and Math 1B and Math 1C*

Students will review the procedures used to solve problems involving ration and proportion and percents. (1 lec hr.)

#### **Math 22—Pre-Algebra Mathematics (4)**

*PreReq: "C" or better in Math 1ABCD or placement in Math 22*

Prepares students for elementary algebra, technical mathematics and/or select program courses. Topics include operations with rational numbers, an introduction to variables, expressions, equations, ratios, proportions, percents, and applications. (4 lec hrs.)

#### **Math 24—Elementary Algebra I (3)**

*PreReq: "C" or better in Math 22 or placement in Math 24*

Represents the first course in a two-course sequence covering elementary algebra topics. Topics include operations with real numbers, linear equations and inequalities, graphing, linear systems, and applications. (3 lec hrs.)

#### **Math 25—Elementary Algebra II (4)**

*PreReq: "C" or better in Math 24*

Represents the second course in a two-course sequence covering elementary algebra topics. Topics include properties of exponents, operations on polynomials, factoring, rational expressions and equations, roots and radicals, quadratic equations, and applications. (5 lec hrs.)

#### **Math 26—Elementary Algebra (5)**

*PreReq: "B" or better in Math 22 or placement in Math 26*

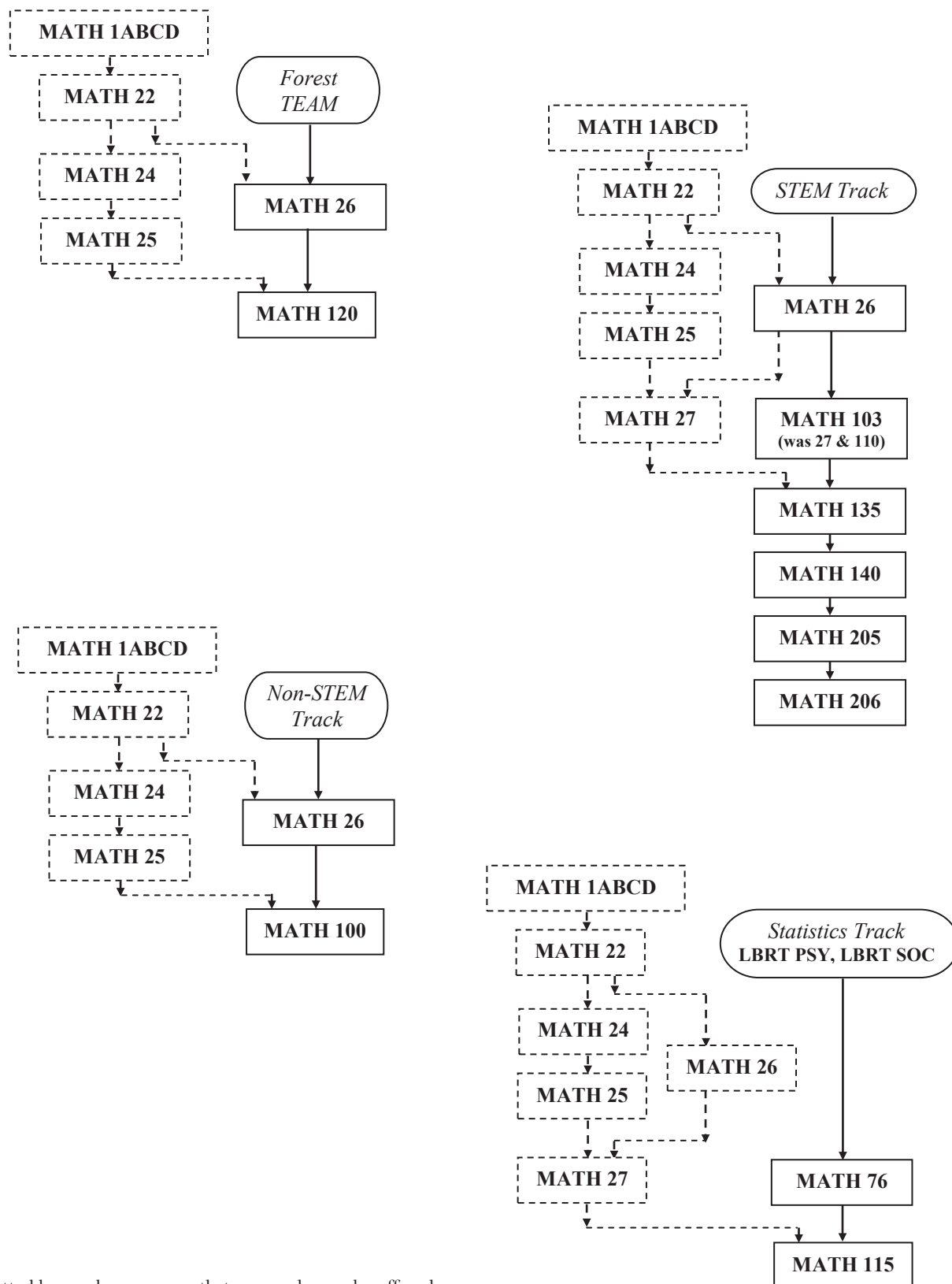
Topics include: operations with real numbers, linear equations and inequalities in one variable, polynomials, factoring, rational numbers and rational expressions, linear equations and inequalities in two variables, linear systems of equations and inequalities in two variables, roots and radicals, and quadratic equations. (5 lec hrs.)

#### **Math 27—Intermediate Algebra (3)**

*PreReq: "C" or better in Math 25 or Math 26 or placement in Math 27*

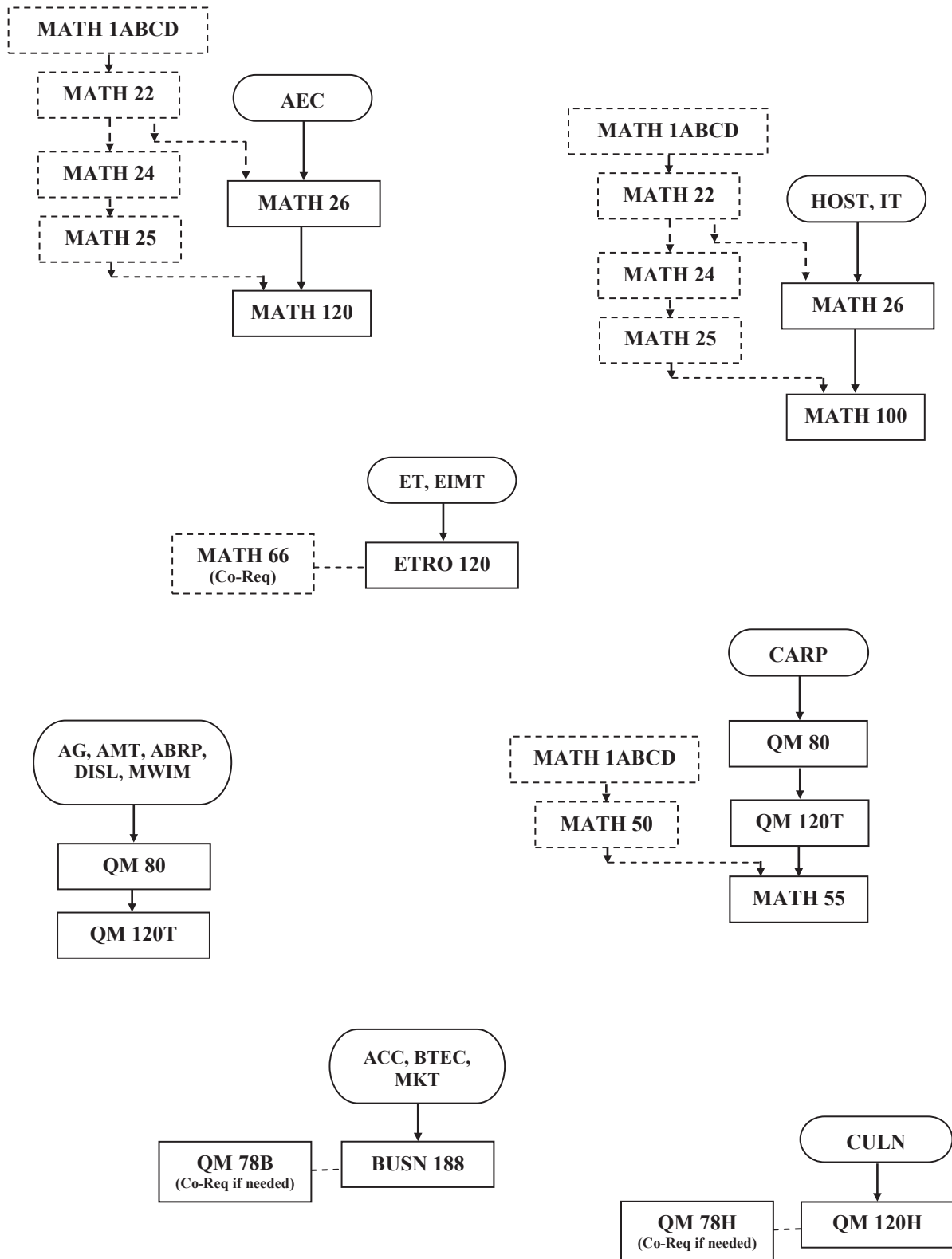
Reviews real numbers, polynomials, algebraic fractions, first degree equations, and inequalities. Studies quadratic equations, exponents, radicals and rational expressions and equations, complex numbers, graphing equations and inequalities in two variables, systems of equations in two and three variables, applications of first and second degree equations and an introduction to functions. (3 lec hrs.)

Progression for Liberal Arts and Public Services Students



Dotted boxes show courses that may no longer be offered.

Progression for Career & Technical Education Students



Dotted boxes show courses that may no longer be offered.

**Math 50—Technical Mathematics I (3)**

*PreReq: "C" or better in Math 1ABCD or placement in Math 50*

An applied mathematics course that includes an integration of topics in arithmetic, algebra, geometry, tables and graphs, and problem solving. (3 lec hrs.)

**Math 50H—Technical Math: Culinary Arts (3)**

*PreReq: "C" or better in Math 1ABCD or placement in Math 50H*

Designed to develop the knowledge and skills of mathematics that are necessary for the Culinary Arts Program. Related instruction in the fundamentals of whole numbers, fractions, decimals, ratios, proportions, and percent to food trades problems. Topics include mensuration, converting recipes, price markup, food cost problems, and preparation of various business forms related to the food industry. (3 lec hrs.)

**Math 51—Algebra Topics for Electricity (3)**

*PreReq: "C" or better in Math 22 or placement in Math 51*

Application of algebraic principles in solving practical problems concerning simple DC electrical circuits. Topics will include: Ohm's Law; series, parallel, and combination circuits; power and efficiency. (3 lec hrs.)

**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 66—Trig & Algebraic Topics for Drafting and Electronics (4)**

*PreReq: "C" or better in Math 22 or placement in Math 24*

A course covering the fundamental concepts of arithmetic, algebra, geometry, and trigonometry, including application problems. (4 lec hrs.)

**Math 76—Introduction to Mathematical Reasoning (5)**

*PreReq: "C" or better in Math 22 or placement in Math 76*

*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. (5 lec hrs.)

**Math 100—Survey of Mathematics (3)**

*PreReq: "C" or better in Math 25 or "C" or better in Math 26 or placement in Math 100; and Eng 21 or ESL 21 or Eng 22 or (ESL 22G and ESL 22W) or placement in Eng 100 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.)

**Math 103—Introduction to College Algebra (4)**

*PreReq: "C" or better in Math 25 or "C" or better in Math 26 or placement in Math 103; and Eng 20R or ESL 20R or Eng 20W or (ESL 20G and ESL 20W) 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. (4 lec hrs.)

**Math 110—College Algebra (3)**

*PreReq: "C" or better in Math 27 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 27 or "C" or better in Math 76 or placement in Math 115; and "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 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 25 or "C" or better in Math 26 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 (4)**

*PreReq: "C" or better in Math 27 or "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 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). (4 lec hrs.)

## Math 140—Pre-Calculus: Trigonometry and Analytic Geometry (4)

*PreReq:* “C” or better in Math 135 or placement in Math 140  
Properties of trigonometric functions, analytical geometry, polar coordinates, conic sections, and vectors. (4 lec hrs.)

## Math 205—Calculus I (4)

*PreReq:* “C” or better in Math 140 or placement in Math 205  
Basic concepts of differentiation and integration with applications. (4 lec hrs.)

## Math 206—Calculus II (4)

*PreReq:* “C” or better in Math 205  
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—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  
*CoReq:* Math 25 or Math 26 or placement in Math 27 or placement in Math 100 or placement in Math 103; and Micr 130L  
*Recommended:* One semester of college chemistry or one year of high school chemistry

This is a survey course of microbiology including topics in infectious disease, microbial taxonomy, morphology, genetics, immunology, microbial ecology, and applied microbiology. (3 lec hrs.)

## +Micr 130L—Microbiology Lab (1)

*CoReq:* Micr 130 (or prior completion)  
This course provides hands-on experience in introductory microbiology. (3 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 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 16—Nurses' Aide (8)

*PreReq:* Basic Life Support/CPR certificate (BLSC); and a score of 50 on COMPASS reading placement test  
Basic nursing procedures for employment in hospitals, nursing homes, clinics and private homes. Includes formal classes, supervised laboratory practice and clinical experience in hospital and home settings. Satisfactory completion allows student to take the OBRA Certification Exam. (3 lec hrs., 15 lab hrs.)

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## Nursing, Practical

## Nurs 101—Nursing Perspectives (1)

*CoReq:* Nurs 120  
Includes a discussion of the role of the practical nurse, the health care delivery system, legal and ethical concepts in nursing, and professional responsibilities of the practical nurse. Open to Practical Nursing Majors only. (1 lec hr.)

## Nurs 120—Practical Nursing I (9)

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  
*CoReq:* FamR 230 (or prior completion)  
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 and “C” or better in FamR 230  
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 and “C” or better in FamR 230  
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

## Nurs 151—Mental Health Nursing (2)

First level introductory course in which concepts basic to nursing assessment are presented within the framework of the nursing process. Emphasis is on psychosocial and sociocultural assessment of the adult and geriatric client using basic communication skills. Simulated clinical experiences in laboratory setting. Open to Nursing majors only. (1 lec hr., 3 lab hrs.)

## Nurs 153—Nursing Concepts and Skills (8)

First level introductory 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. Clinical experiences in laboratory and health agencies. Open to Nursing majors only. (3 lec hrs., 15 lab hrs.)

**Nurs 157—Adult Health Nursing (10)**

*PreReq: "C" or better in Nurs 151 and "C" or better in Nurs 153 and "C" or better in Nurs 158*

First level course in which concepts basic to promotion, maintenance and restoration of adult health are presented within the framework of the nursing process. Emphasis is on nursing management of clients' experiencing disruptions in ego and body integrity/defense, oxygenation, metabolism, fluid and electrolyte balance, sensory-perceptual, mobility and coordination, digestion and elimination due to developmental and/or pathophysiological processes. (4 lec hrs., 18 lab hrs.)

**Nurs 158—Issues and Trends I (1)**

First level introductory course in which the historical, legal, ethical and political aspects of professional nursing are explored. The nursing roles of member of the profession, member of the health care team and client advocate and educator are addressed. Open to Nursing majors only. (1 lec hr.)

**Nurs 251—Mental Health and Psychiatric Nursing (3)**

*PreReq: "C" or better in Nurs 157*

Second level course in which concepts regarding the promotion, maintenance, and restoration of mental health are presented within the framework of the nursing process. Emphasis is on nursing management of clients and families experiencing disruptions in psychosocial functioning. Clinical experiences in institutional and community based settings. (1 lec hr., 6 lab hrs.)

**Nurs 254—Family Health Nursing Care I (5)**

*PreReq: "C" or better in Nurs 157*

Second level course in which concepts regarding promotion, maintenance and restoration of health are applied to the nursing care of the childbearing woman and family are presented within the framework of the nursing process. Emphasis on health teaching, anatomic and physiologic adaptation, human growth and development, and the many interdependent relationships of human reproduction (including normal and high risk pregnancies). Clinical experiences in hospital and community based settings. (2 lec hrs., 9 lab hrs.)

**Nurs 255—Family Health Nursing Care II (5)**

*PreReq: "C" or better in Nurs 157*

Second level course in which concepts regarding promotion, maintenance and restoration of health are applied to the nursing care of the pediatric client and childrearing family. Concepts are presented within the framework of the nursing process. Emphasis on growth and development and health teaching of the pediatric client and family in community family based settings. Clinical experiences in hospital and community based settings. (2 lec hrs., 9 lab hrs.)

**Nurs 257—Advanced Adult Health Nursing (5)**

*PreReq: "C" or better in Nurs 157*

*CoReq: Nurs 260*

Second level course in which concepts regarding promotion, maintenance and restoration of health are applied to the management of clients experiencing complex disruptions in functioning. Concepts are presented within the framework of the nursing process. Emphasis is on managing the nursing care of groups of clients in hospital, long term care and community settings. Clinical experiences in institutional and community based settings. (2 lec hrs., 9 lab hrs.)

**Nurs 258—Issues and Trends II (1)**

*PreReq: "C" or better in Nurs 157*

Second level course in which legal, ethical, political and sociocultural issues and trends impacting health care are discussed. Emphasis is on the roles and responsibilities of the new graduate. (1 lec hr.)

**Nurs 260—Nursing Management (2)**

*PreReq: "C" or better in Nurs 157*

*CoReq: Nurs 257*

Second level course in which principles of management, organizational structure, leadership, decision making and change are presented within the framework of the nursing process. Emphasis is on the beginning level of management of the nursing care of a group of clients. Application of principles occurs in Nurs 257 clinical settings. Employment opportunities and effective job-seeking strategies are addressed. (2 lec hrs.)

**Nurs 266V—Contemporary Nursing Topics (1-3)**

*PreReq: Nurs 157*

Second level elective course. Advanced nursing care topics relevant to current nursing issues and community needs will be offered. Course content and topics may vary among semesters. May be repeated for credit provided that a different topic is studied. (variable hours)

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## Oceanography

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**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 102; and Math 25 or Math 26 or placement in Math 27 or placement in Math 100 or placement in Math 103*

Geological, physical, and biological aspects of the ocean; structure, formation, and features of ocean basins; seawater properties and their distributions; currents, waves, tides; characteristics of marine organisms; marine ecological principles. (No more than 3 credits may be granted for the completion of both Ocn 201 and Geol 201 at UH Hilo College of Arts and Sciences.) (3 lec hrs.)

**Ocn 201L—Science of the Sea Laboratory (3)**

*CoReq: Ocn 201 (or prior completion)*

A laboratory intended to accompany Ocn 201. Provides students with hands-on, practical lab and field experiences that enable them to apply concepts learned in lecture, using the Hawaiian ocean ecosystems as a main theme. Students will participate in laboratory and field exercises emphasizing the application of techniques used in the collection and analysis of geologic, chemical, physical, and biological oceanographic data. Field-based lab activities may include extensive time aboard oceanographic vessels or other watercraft. Focuses heavily on lab- and field-based observation, data collection, and analysis. College-sponsored transportation may not be available. Recommended for both science and non-science majors. (3 lab hrs.)

**Ocn 205—Intermediate Oceanography (3)**

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

An examination of the methods and results of marine science applied to various problems in geological, physical, chemical, and biological oceanography. Topics from Ocn 201 reexamined in more detail. (3 lec hrs.)

## Pacific Islands Studies

### 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*

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.)

## Pharmacology

### Phrm 203—General Pharmacology I (3)

*PreReq: Biol 141 and Biol 141L; and Math 25 or Math 26 or placement in Math 27 or placement in Math 100 or placement in Math 103*

Drugs discussed with emphasis on sites and mechanism of action, toxicity, fate and uses of major therapeutic agents. Intended for undergraduates in the health sciences and related fields. (3 lec hrs.)

## Philosophy

### 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 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 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 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 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: "B" or better in Math 22 or Math 24 or placement in Math 26 or placement in Math 76; and Eng 21 or ESL 21 or Eng 22 or (ESL 22G and ESL 22W) or placement in Eng 100 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 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 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 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*

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.)

## Physics

### Phys 100—Concepts of Physics-A Survey (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 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 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 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 170—General Physics I (4)**

*CoReq: Phys 170L; and Math 205 (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 lec hrs.)

**Phys 171—General Physics II (3)**

*PreReq: Phys 170 and Phys 170L*

*CoReq: Phys 171L; and Math 206 (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 171L—General Physics II Lab (1)**

*PreReq: Phys 170L*

*CoReq: Phys 171 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 lec hrs.)

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**Political Science**

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**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*

The nature of the State, basic forms of government, and the theories of democracy, communism, fascism, and other political ideologies. Roles of political parties and pressure groups; the nature of job opportunity and voting behavior; the character of modern public administration; the pattern of contemporary international relations. (3 lec hrs.)

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**Psychology**

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**Psy 100—Survey of Psychology (Introductory) (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*

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*

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; and Math 110 or Math 115 (either may be taken concurrently)*

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*

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 230—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*

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 270—Intro to Clinical Psychology (3)**

*PreReq: Psy 100*

An introduction to the scientific and professional aspects of clinical psychology. Basic concepts related to assessment, treatment and clinical models will be explored and examined. (3 lec hrs.)

**Psy 275—Psychology and the Expressive Arts (3)**

Cross-listed as Hum 275

*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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**Quantitative Methods**

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**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 50H or "C" or better in Math 22 or placement in Math 24 or placement in QM 120H or concurrent enrollment in QM 78H*

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: Math 1ABCD or placement in Math 22 or placement in Math 50 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.)

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## Refrigeration and Air Conditioning

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**RAC 121—Basic Refrigeration, Heating, Ventilating, and Air Conditioning (12)**

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## Religious Studies

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**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 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 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 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 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.)

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## Science

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+ 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 124—Introduction to Environmental Science (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 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)

**+Sci 124L—Introduction to Environmental Science Lab (1)**

*CoReq: Sci 124 (or prior completion)*

The laboratory accompanies the Environmental Science 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.)

## 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 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; and Math 26 or placement in Math 27 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.)

## 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 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 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—Social Problems and Social Issues (3)**  
*PreReq: Eng 22 or (ESL 22G and ESL 22W) or placement in Eng 100*  
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*  
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*  
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; 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.)

## Speech and Communication

**SpCo 51—Oral Communication Techniques (3)**  
A practical skills-oriented course stressing a great deal of practice in speech skills. (3 lec hrs.)

**SpCo 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*  
*Recommended: ESL 25 and/or Eng 55*  
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.)

**SpCo 151—Introduction to Speech and 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*  
Principles, theories and practices in one-to-one, small group, and one-to-many communication situations through participation in structured activities. (3 lec hrs.)

**SpCo 231—Oral Interpretation of Literature (3)**

*PreReq: SpCo 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.)

**SpCo 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*

*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. (3 lec hrs.)

**SpCo 251—Public Speaking (3)**

*PreReq: Eng 100*

Analysis, preparation and delivery of speeches. Emphasis on content, organization and style. (3 lec hrs.)

**SpCo 260—Media and Society (3)**

*PreReq: Eng 100*

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 131—Ethics in Public Services (1)**

Cross-listed with 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*

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*

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 230—Prevention Specialist (3)**

Cross-listed with AJ 230 and HSer 230

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

*Recommended: AJ 210 or HSer 110 or HSer/Subs 245*

Provides education and training for students interested in pursuing careers as community-based Prevention Specialists, and 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/HSer/Subs 230 with a "C" or better grade 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 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 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*

Provides knowledge and practical skills to become competent case managers in human services agencies. Develops professional skills in order to teach those who need assistance to manage their own lives within the scope of their resources and abilities. Presents culturally sensitive strategies and strength-based model of case management. Special attention given to diverse populations utilizing case management systems. (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*

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 and Addiction (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*

Provides students with a general and basic understanding of substance use, abuse, and dependency. Students will explore the historical and societal perceptions of substance use, patterns and trends of use, and societal and legal responses to drugs and alcohol. Methods of ingestion, effects on the individual, prevention, intervention, and treatment will be identified and analyzed. (3 lec hrs.)

**Subs 270—Twelve Core Functions of Substance Abuse Counseling (3)**

*PreReq: Subs 268*

Focuses on the treatment process including intervention and prevention issues as it applies specifically to the substance abuser. Ethical and legal issues for the substance abuse counselor will be identified. A primary theme in this course will be the explication of the Twelve Core Functions of a Substance Abuse 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 HCC, 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's Studies

**WS 151—Introduction to Women's Studies (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*

This course will present 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.)

**WS 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 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.)

**WS 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 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.)

**WS 256—Dynamics of Family Violence and Sex 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*

Focuses on domestic violence and child abuse. The cycle of violence, causes, effects, and symptoms of child abuse will be explored. Legal, public policy, criminal justice, health and social services responses, and interventions to family, child, and intimate partner abuse will be examined. (3 lec hrs.)

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## Zoology

**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 102*

*CoReq: Zool 101L (when offered)*

The biology of animals: kinds of animals, their structure, evolutionary relationships, physiology, ecology and development. (3 lec hrs.)

**Zool 101L—Principles of Zoology Laboratory (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.)