

COURSE DESCRIPTIONS

In this section, you will find courses of instruction listed alphabetically by course alphas. Not all courses are offered every semester. To find out if a course is offered during a particular semester, you need to check the current Class Availability on the website, kauai.hawaii.edu

WHAT IS A COURSE ALPHA?

It is an abbreviation of a subject area. In this example, ETRO means "electronics." A Foundation or Diversification designation will be identified in parentheses at the end of a course title. For more information, see page 114.

HOW MUCH TIME WILL I SPEND IN CLASS EACH WEEK?

Add up all the numbers in the "Class hours" line. Courses which are less than a semester in length will show the number of hours like this: 3 lecture, 12 lab per week (8 weeks).

WHAT IS A PREREQUISITE?

A prerequisite is a requirement to be met before you enter a class. Not all classes have prerequisites.

WHAT IS A COREQUISITE?

A corequisite is a course which must be taken at the same time as the course being described.

WHAT DOES A COMMENT TELL ME?

A comment gives you additional information about a course.

WHAT DOES A RECOMMENDED TELL ME?

A recommended is not a requirement, but it gives you additional preparation to consider prior to taking the course.

WHAT DOES A DESCRIPTION TELL ME?

A description gives you detailed information about a course. A course's offerings will also be listed:

F = offered in the fall semesters

S = offered in the spring semesters

F, S = offered in both the fall and spring semesters (not necessarily every fall or spring semester)

Su = offered in the summer

WHAT DOES A COURSE NUMBER MEAN?

100 and above

These courses are applicable toward a baccalaureate degree as well as toward an associate degree and certificate programs. They carry college transfer credit.

20 through 99

These courses may be used toward a degree or certificate from Kaua'i Community College, but they generally are not applicable for credit toward a baccalaureate degree.

ETRO 241 - Electronics Circuit Analysis (DA)

Credits: 4

Class hours: 4 lecture

Prereq: "C" or higher in ETRO 280

Coreq: ETRO 287L

Comments: Credit by exam is not an available option.

Description: The student learns how computers operate by studying the architecture of the 8088/80X86 microprocessor, the bus structure, memory, interfaced peripherals, and operating systems. Applications of this technology in data acquisition and networked (LAN/WAN) systems are studied along with maintenance, diagnostics, and repair. TCP/IP in ethernet and token ring networks are discussed in the context of the seven

HWST 281 - Hawaiian Astronomy and Weather Relating to Polynesian Voyaging

Credits: 3

Class hours: 3 lecture

Recommended: Acceptable placement test score or placement in ENG 100 and MATH 24.

Description: A survey of the Hawaiian and Polynesian environment in relationship to migrations, voyaging, and folklore. The course will provide the student with the basics of noninstrument navigation and voyaging as utilized in the voyages of Hōkūle`a, Hawai`i Loa, and Makali`i. In addition, the student will understand and appreciate the cultural impact of long distance voyaging. *F, S, Su*



Foundations and Diversification Requirements for UH System:

Kaua'i Community College has adopted the UH System's **Foundations Requirements** and **Diversification Requirements**: For the A.A. degree, students planning to transfer to Hawai'i Community College or UH Hilo are advised to check with their counselors for particulars regarding the College's requirements.

Minimum Foundations Requirements

Global and Multicultural

Perspectives (FGA, FGB, FGC)..... 6 credits from 2 groups

Symbolic Reasoning (FS)..... 3 credits

Written Communication (FW)..... 3 credits

12 CREDITS

Minimum Diversification Requirements

Arts (DA), Humanities (DH), and Literatures (DL).....6 credits from 2 areas

Biological Sciences (DB) 3 credits

Physical Sciences (DP)..... 3 credits








Science Lab (DY) 1 credit








Social Sciences (DS).....6 credits from 2 different disciplines

19 CREDITS



Sustainability is defined as fostering the long-term maintenance of well-being, while respecting the balance of environmental, economic, social, and cultural aspects of any one endeavor. In respecting the College's ambition, Ho'ouluwehi narrowed down its scope and focus to four areas: 1) food production, 2) renewable energy, 3) affordable housing/sustainable living, and 4) waste elimination. To determine which courses should be awarded the taro leaf logo, five topic areas were used: 1) Economics, 2) Social, cultural, historic, 3) Science and technology, 4) Environmental, and 5) Written, oral, and artistic. Courses with sustainable concepts are listed below.

-  ART 125
-  BOT 101
-  ED 245
-  ELEC 70
-  ENG 215
-  FENG 80
-  HWST 107

-  HWST 111
-  HWST 251
-  HPER 100
-  HPER 152
-  HOST 101
-  HOST 150
-  HOST 290

-  NURS 210
-  OCN 120
-  PBT 141
-  PBT 290V
-  SSCI 250
-  SOC 100

DEFINITIONS OF WORDS USED IN COURSE DESCRIPTIONS:

Corequisite	A course which must be taken in conjunction with and during the same semester or part of semester term as another course. Corequisites are indicated in the course description.
Approval of Instructor	Written permission granted by the instructor before a student enrolls in a course.
Modular Courses	Modular courses are shorter than one semester, ranging from 2 to 13 weeks and carrying from 1 to 7 credits. Modular courses may be found in accounting, automotive mechanics, business education, mathematics, and nursing. The course description will indicate that a course is modular.
Placement Test	A test administered by the College to assess current skills to determine acceptable class placement.
Prerequisite	A requirement that must be met before you are allowed to enter a course. The purpose of a prerequisite is to ensure that you have the background you need to be successful in the course.
Recommended	Suggested preparation which will enhance a student's ability to perform well in a particular course.
Transferability	A transfer level course is a 100 or higher level course that is supposed to be considered college level work. Any course that is 100 level or higher can be counted in the total credits required to obtain a bachelor's degree, even if it doesn't meet the requirements of a specific major or program.
Writing Intensive Courses (3 credits)	Each semester, courses from a variety of disciplines are offered which are designated Writing Intensive (WI). These courses emphasize using writing as a tool to help students think actively about course content; in addition, WI instructors commit to helping students improve their writing ability. WI courses require students to write 4,000 words over the course of a semester; at least 1,000 words must be polished prose. Completion of one WI course is required for the A.A. degree in Liberal Arts; however, students planning to transfer to UH Mānoa or UH Hilo may opt to take several WI courses to help meet these schools' requirements. Current WI course offerings appear on the Class Availability link on the KCC homepage.

INSTRUCTIONAL LEVEL

For courses requiring reading and mathematics, students are expected to have reading and math skills above the remedial level or consent of the instructor.

Accounting - ACC

Agriculture - AG

Anthropology - ANTH

**Architectural, Engineering,
and CAD Technologies - AEC**

Art - ART

Astronomy - ASTR

**Auto Body Repair
and Painting - ABRP**

**Automotive Mechanics
Technology - AMT**

Biology - BIOL

Blueprint - BLPR

Botany - BOT

Business - BUS

Business Law - BLAW

Business Technology - BUSN

Carpentry - CARP

Chemistry - CHEM

Culinary Arts - CULN

Early Childhood Education - ECED

**East Asian Language
and Literature - EALL**

E-commerce - ECOM

Economics - ECON

Education - ED

Electrical Engineering - EE

Electricity - ELEC

Electronics - ETRO

Energy - ENRG

English - ENG

English Language Institute - ELI

Entrepreneurship - ENT

**Facilities Engineering
Technology - FENG**

French - FR

**Geographic Information
System - GIS**

Geography - GEOG

Geology - GG

Hawaiian - HAW

Hawaiian Studies - HWST

Health - HLTH

**Health, Physical Education,
and Recreation - HPER**

History - HIST

Horticulture - HORT

Hospitality and Tourism - HOST

**Information and
Computer Sciences - ICS**

Interdisciplinary Studies - IS

Japanese - JPNS

Journalism - JOUR

Linguistics - LING

Machine Shop - MACH

Management - MGT

Marine Science - MARE

Marketing - MKT

Mathematics - MATH

Medical Assisting - MEDA

Microbiology - MICR

Music - MUS

Nursing - NURS

Oceanography - OCN

Philosophy - PHIL

Physics - PHYS

Plant Bioscience Technology - PBT

Political Science - POLS

Psychology - PSY

Religion - REL

Sales and Marketing - SMKT

Science - SCI

Social Science - SSCI

Sociology - SOC

Spanish - SPAN

Speech - SP

**Sustainable Science
Management - SSM**

Theatre - THEA

Welding - WELD

Zoology - ZOOL

ACCOUNTING (ACC)

ACC 124 - Principles of Accounting I

Credits: 3

Class hours: 3 lecture

Prereq: "C" or higher or concurrent enrollment in ENG 23 (Note: For the Fall 2016 only, ENG 97).

Description: This course introduces basic accounting principles and practices for service and/or merchandising types of businesses. Areas include accounting as an information system, the accounting cycle, financial statements, internal control, current and/or long-term assets, current liabilities, and payroll. Special emphasis will be placed upon the practical application of accounting principles. *F, S*

ACC 125 - Principles of Accounting II

Credits: 3

Class hours: 3 lecture

Prereq: "C" or higher in ACC 124.

Comments: Credit by exam is not an available option.

Description: This course continues the study of financial accounting procedures. Areas include: long-term assets, long-term liabilities, accounting for corporations and/or partnerships. The statement of cash flows and financial statement analysis may be covered. *F, S*

ACC 126 - Principles of Accounting III

Credits: 3

Class hours: 3 lecture

Prereq: "C" or higher in ACC 125.

Comments: Credit by exam is not an available option.

Description: This course introduces basic accounting principles and practices for manufacturing businesses and introduces basic principles and practices of managerial accounting. Areas include financial statement analysis, cost accounting, budgeting, standard cost systems, break-even analysis, responsibility accounting, and capital budgeting. *F*

ACC 132 – Payroll and Hawai'i General Excise Tax

Credits: 3

Class hours: 3 lecture

Prereq: "C" or higher or concurrent enrollment in ACC 124 or ACC 201.

Description: This course introduces principles, manual and computerized procedures, and terminology for business applications of payroll accounting. Areas include preparation of federal and Hawai'i state forms for payroll taxes and the Hawai'i General Excise and Use Tax.

ACC 134 – Individual Income Tax Preparation

Credits: 3

Class hours: 3 lecture

Prereq: "C" or higher or concurrent enrollment in ENG 23 (Note: For the Fall 2016 only, ENG 97).

Description: This course introduces the preparation of federal and state of Hawai'i individual income tax returns with an emphasis on tax law and regulations and their application to the tax returns. This course is intended for an individual preparing basic tax returns under the supervision of an accounting professional.

ACC 137 – Business Income Tax Preparation

Credits: 3

Class hours: 3 lecture

Prereq: "C" or higher in ACC 134.

Description: This course introduces Federal and Hawai'i tax laws and regulations and basic return preparation for business entities. This course is intended for an individual preparing basic tax returns under the supervision of an accounting professional.

ACC 193V - Cooperative Education

Credits: 1-3

Class hours: 1 hour per week with coordinator and 75 hours work experience for each credit.

Prereq: Accounting major or Department/instructor approval. Additional prerequisites may be required by different campuses.

Comments: May be repeated for a maximum of 3 credits.

Description: Cooperative Education provides practical career-related work experience through a program used nationally in colleges and universities to apply classroom knowledge and to develop job competencies. Full-time or part-time work (with or without compensation) in private and public sectors is utilized for this program. The number of credits earned depends upon the number of hours spent at the job station during the semester. *F, S*

ACC 201 - Introduction to Financial Accounting

Credits: 3

Class hours: 3 lecture

Prereq: Qualified for ENG 100.

Description: This course is an introduction to accounting principles and practices used to record and communicate financial information and to analyze methods for valuating assets, liabilities, and equity of an organization. *F*

ACC 202 - Introduction to Managerial Accounting

Credits: 3

Class hours: 3 lecture

Prereq: "C" or higher in ACC 125 or ACC 201.

Recommended: ACC 199V is recommended each semester to supplement ACC courses.

Description: This course is 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. Also included are principles and procedures relating to cash flow analysis and corporations. *S*

ACCOUNTING (ACC) • continued •

ACC 252 – Using QuickBooks in Accounting

Credits: 3

Class hours: 3 lecture

Prereq: "C" or higher in ACC 124 or ACC 201 or approval or instructor.

Description: This course provides a "hands-on" approach to computerized accounting using QuickBooks. Students will apply previously acquired accounting skills and knowledge in a computerized environment to set up and maintain accounting records. An emphasis will be placed on the application of QuickBooks to the accounting cycle.

ACC 255 – Using Excel in Accounting

Credits: 3

Class hours: 3 lecture

Prereq: "C" or higher in or concurrent enrollment in ACC 125 or ACC 201.

Description: This course provides hands-on training in the use of spreadsheets on computers to solve accounting problems. It applies previously acquired accounting skills and knowledge and emphasizes financial and managerial accounting. Additionally, students will develop the ability to use a numeric keypad to perform business computations.

AGRICULTURE (AG)

AG 103 - Sustainable Agriculture Systems

Credits: 2

Class hours: 2 lecture

Prereq: Qualified for ENG 23 (Note: For the Fall 2016 only, ENG 97).

Description: This course explores sustainable agriculture systems in Kaua'i, Hawai'i and the world. It compares various sustainable models and examines various sectors of production agriculture and related agribusinesses in Hawai'i. Field trips to farms, processors and wholesalers will complement the course.

AG 103B - Sustainable Farm Management

Credits: 1

Class hours: 1 lecture

Prereq: Qualified for ENG 23 (Note: For the Fall 2016 only, ENG 97). Qualified for MATH 75X.

Description: This course covers business and regulation aspects, available resources, and collaborative opportunities for farmers. Students will learn through guest speakers, lectures, readings, and business planning.

ANTHROPOLOGY (ANTH)

ANTH 199V - Special Studies

See explanation under the heading of Special Studies.

ANTH 200 - Cultural Anthropology (DS)

Credits: 3

Class hours: 3 lecture

Prereq: Qualified for ENG 100.

Description: Orientation on the nature of culture, basic concepts for analyzing cultural behavior. *F, S*

ANTH 220 - Prehistory of Hawai'i (DS)

Credits: 3

Class hours: 3 lecture

Description: This course studies the development of prehistoric Hawaiian culture through legendary, archaeological, ethnographic, and historic sources. Prehistory of Hawai'i is designed for the layperson who is interested in a general course on the culture of Hawai'i prior to 1778. ANTH 220 concentrates on the early human use of and adaptation to the geography and environment of these islands.

ARCHITECTURAL, ENGINEERING, AND CAD TECHNOLOGIES (AEC)

AEC 81 - Introduction to AutoCAD

Credits: 3

Class hours: 2 lecture and 3 lab

Prereq: Qualified for ENG 106.

Qualified for MATH 82X or concurrent enrollment in MATH 75X or higher.

Description: This class is designed for students with no previous Computer-Aided Design (CAD) training. It will introduce new users to basic AutoCAD two-dimensional (2D) drafting tools, commands, and concepts essential to related fields in carpentry, architecture, engineering, and green construction technology. *F*

AEC 110 - AutoCAD 1

Credits: 3

Class hours: 2 lecture and 3 lab

Prereq: "C" or higher in AEC 81.

Description: This course reinforces fundamental essential Computer-Aided Design (CAD) operator skills introduced in AEC 81, Introduction to AutoCAD, by providing additional concepts and tools that demonstrate technical knowledge essential to the architectural, engineering, and construction technology related fields. *S*

ART (ART)

ART 101 - Introduction to the Visual Arts (DA)

Credits: 3

Class hours: 3 lecture

Description: This course is a general introduction to the visual arts including media, techniques, and history. It is designed to offer an in-depth appreciation of the creative processes involved in the visual arts. This course reviews two- and three-dimensional art forms, methods and media; examines the visual elements and principal of design; and surveys art styles from the prehistoric to the 20th Century. It is oriented to students who have not been exposed to the formal study of these disciplines. *F, S*

ART 105 - Introduction to Ceramics (DA)

Credits: 3

Class hours: 2 lecture and 4 studio

Comments: May be repeated for a maximum of 3 credits.

Description: This course introduces students to creating three dimensional concepts in clay. Students complete hand-building and wheel-throwing projects and learn how to use a kiln. *F, S*

ART 106 - Introduction to Sculpture

Credits: 3

Class hours: 2 lecture and 4 studio

Description: This course introduces students to the traditional sculptural techniques of carving, modeling, and constructing. Students will use these techniques through the creation of relief sculpture, sculpture in the round, and mold-making. *F*

ART 107D - Introduction to Digital Photography (DA)

Credits: 3

Class hours: 2 lecture and 4 studio

Description: This course is an introduction to the fundamental, technical, and aesthetic issues of digital photography. This includes thorough instruction in camera operation, image and print processing, basic lighting concepts, and composition. Assignments will demonstrate mastery of technical skills and individual creative expression. Activities include camera operation, picture taking, computer editing techniques and procedures, and photo printing. Students must have access to a digital camera (an SLR type digital camera is preferred but not required). *F, S*

ART 111 - Introduction to Watercolor Painting (DA)

Credits: 3

Class hours: 2 lecture and 4 studio

Prereq: "C" or higher in ART 113.

Description: This course is an introduction to the theory and practice of watercolor painting. Students will learn about the use of watercolor materials and wet and dry painting techniques, including applying washes, glazing, lifting, scraping, and creating blends. They also will concentrate on painting composition, paint consistency, and color development within the context of practicing and improving their technical painting skills. *F, S*

ART 112 - Introduction to Digital Arts

Credits: 3

Class hours: 2 lecture and 4 studio

Description: This course is an introduction to digital imaging technology and the use of the computer as an artist's tool. Emphasis will also be placed on developing an aesthetic criteria for the evaluation of digital images. *F, S, Su*

ART **(ART) • continued**

ART 113 - Introduction to Drawing (DA)

Credits: 3

Class hours: 2 lecture and 4 studio

Description: This course involves students in two-dimensional visualization and rendering of forms, spaces, and ideas through a variety of approaches and media. Students learn the basics of line, contour, shading, texture, perspective, composition, and action drawing. Students will create several original works of art and compile a portfolio of their drawings at the end of the term. *F*

ART 115 - Introduction to 2D Design

Credits: 3

Class hours: 2 lecture and 4 studio

Description: Introduction to 2D Design is a course for beginning art students and those interested in art fundamentals, which introduces basic elements, principles, and techniques or organization used by artists. *F*

ART 117 - Introduction to Screenwriting

Credits: 3

Class hours: 3 lecture

Prereq: "C" or higher in ENG 100 or ENG 104.

Comments: Cross-listed with ENG 117.

Description: This is an introductory course in which students will learn basic principles of screenwriting. This includes thorough instruction in story development and structure, appropriate terminology, and the experience of the writing and rewriting process. Activities include script writing, viewing and analyzing short films, in-class writing assignments, reading essays, and reading and critiquing short screenplays. *F, S*

ART 123 - Introduction to Painting (DA)

Credits: 3

Class hours: 2 lecture and 4 studio

Prereq: "C" or higher in ART 113.

Description: This course teaches the fundamentals of painting to beginning painting students. Students will explore the technical and expressive possibilities of the paint media. The class will focus on the formal, conceptual, and technical problems in painting. Emphasis will be given to color mixing systems and successfully manipulating paint as a medium for self expression. *F, S*

ART 125 - Introduction to Graphic Design

Credits: 3

Class hours: 2 lecture and 4 studio

Recommended prereq or coreq: ART 112

Description: This course is an introduction to techniques and information for graphic design focusing on print media. This course stresses creative development with sections on the history of graphic design, the design process, text and typography, layout, advertising design, and electronic prepress. *F, S*

ART 126 - 3D Computer Graphics I

Credits: 3

Class hours: 2 lecture and 4 studio

Recommended coreq: ART 112

Description: This course provides introductory studio experience in 3D computer graphic concepts and will provide a historical background and general design and production issues for 3D Graphics and 3D model creation. Details of modeling 3D objects and environments and a range of simple to complex rendering techniques will be covered. *S*

ART 157 - Introduction to Digital Video/Storytelling

Credits: 3

Class hours: 2 lecture and 4 studio

Description: This course is an introduction to the fundamental, technical, and aesthetic issues of digital storytelling. This includes thorough instruction in story development, image production, and digital video editing. Activities include script writing, storyboard production, video and sound recording, editing techniques, and DVD production basics. One aspect of this course will be to integrate traditional Hawaiian storytelling with new media technology. *F, S*

ART 190B - Introduction to Adobe Photoshop®

Credits: 1

Class hours: 2 lecture/lab

Description: This course is an introduction to Adobe Photoshop®. It is oriented to students who have not been exposed to the formal study of this software program. Students will learn the basic Adobe Photoshop® work area and tools, including such concepts as selecting, layers, filters, painting, retouching, and creating special effects. Students will work on various projects and digital images.

ART 190C - Intermediate Adobe Photoshop®

Credits: 1

Class hours: 2 lecture/lab

Prereq: "C" or higher in ART 190B.

Description: Students will acquire a working knowledge of the tools and techniques of Adobe Photoshop®, as they are applied to graphic design, multi-media, and other studio art applications. It is intended to build on the ART 190B course. The course will cover: advanced operation of tools and palettes, file formats, preparing and optimizing images for the web, transferring files, masks, paths and channels, color adjustment for printing and prepress production, advanced filters, animation for the web, and general tips.

ART **(ART) • continued**

ART 190D - Advanced Adobe Photoshop®

Credits: 1

Class hours: 2 lecture/lab

Prereq: "C" or higher in ART 190C.

Description: Students will acquire a working knowledge of the tools and techniques of Adobe Photoshop®, as they are applied to graphic design, multimedia and other studio art applications. It is intended to build on the ART 190B and ART 190C courses. The course will cover: advanced layered image production, special effects, as well as illustration/painting tools and prepress tools in Adobe Photoshop®.

ART 207D - Intermediate Digital Photography (DA)

Credits: 3

Class hours: 2 lecture and 4 studio

Prereq: "C" or higher in ART 107D.

Description: This course covers intermediate level, technical, and aesthetic issues of digital photography. This includes advanced instruction in camera operation, image and print processing, and lighting concepts and composition. Assignments will demonstrate mastery of technical skills and individual creative expression. Activities include camera operation, picture taking, computer editing techniques and procedures, and photo printing. Students must have access to a digital camera; an SLR type digital camera supplied by student is strongly recommended. F, S

ART 211 - Intermediate Watercolor (DA)

Credits: 3

Class hours: 2 lecture and 4 lab

Prereq: "C" or higher in ART 111.

Comments: This course can be repeated once for credit.

Description: This course is a continuation of ART 111 that provides intensive application of basic techniques. Emphasis is placed on the development of a personal style in the medium of watercolor. F

ART 213 - Intermediate Drawing (DA)

Credits: 3

Class hours: 2 lecture and 4 studio

Prereq: "C" or higher in ART 113.

Description: This course has an emphasis on the development of intermediate drawing skills especially the use of color. There will be an emphasis on the power of observation from life. This course introduces students to the intermediate skills and elements of descriptive drawing with some abstraction later in the semester. Students will become familiar with the basic vocabulary and conventions of objective drawing processes and media while practicing an enhanced perceptual awareness and eye/hand motor skills. S

ART 223 - Intermediate Painting (DA)

Credits: 3

Class hours: 2 lecture and 4 studio

Prereq: "C" or higher in ART 123.

Description: This course provides an overview of the origins, influences, development and impact of major artistic movements in Europe and the U.S. Students will paint with an emphasis on familiarizing themselves with the subject matter, styles, techniques, and intentions of famous artists from these movements to further develop the skill they learned in ART 123. S

ART 225 - Intermediate Graphic Design

Credits: 3

Class hours: 2 lecture and 4 studio

Prereq: "C" or higher in ART 112 and ART 125.

Description: This is an advanced course covering a continuation of techniques and information for graphic design focusing on print media. This course stresses creative development with sections on the history of graphic design, the design process, text and typography, layout, advertising design, and electronic prepress. This course emphasizes the practical use of digital tools and processes in graphic design as well as color management for graphic design. F, S

ART 229 - Interface Design I

Credits: 3

Class hours: 2 lecture and 4 studio

Prereq: "C" or higher in ART 112.

Description: Students will acquire an introductory knowledge of the design and development of multimedia and web-based interactive interfaces, as well as the production of graphic images for those interfaces. A variety of software programs will be utilized in the production of still images and animations including some video editing. S

ART 243 - Intermediate Ceramics - Hand Building (DA)

Credits: 3

Class hours: 2 lecture and 4 lab

Prereq: "C" or higher in ART 105.

Description: Students explore the development of sculptural concepts using hand building techniques. S

ART 244 - Intermediate Ceramics - Wheel Throwing (DA)

Credits: 3

Class hours: 2 lecture and 4 lab

Prereq: "C" or higher in ART 105.

Description: Students experience the development of vessel and sculptural concepts using wheel throwing techniques. F, S

ART 248 - Digital Post-Production

Credits: 3

Class hours: 2 lecture and 4 studio

Recommended: ART 157

Description: This course is an introduction to the fundamental technical and aesthetic issues of video editing. Topics include terminology, technologies, aesthetics, basic picture-only editing skills, and the editor's role augmented by hands-on experience. Upon completion, students should be able to use editing equipment and basic digitizing, logging, and picture-only editing skills. F

ART **(ART) • continued**

ART 249 - Interface Design II

Credits: 3

Class hours: 2 lecture and 4 studio

Prereq: "C" or higher in ART 112 and ART 229.

Description: Students will acquire an advanced knowledge of the design and development of multimedia interactive interfaces and production of graphic images for those interfaces. A variety of software programs will be utilized in the production of still images and animations, including video editing. The production of interactive interfaces for web and multimedia projects to be used in students' professional portfolios will be emphasized. S

ART 250 - Film and World History Since WWII

Credits: 3

Class hours: 3 lecture

Comments: Cross-listed with HIST 250.

Description: This course examines historical events, from WWII until the present, through cinema. Significant events and turning points will be discussed, including the attack on Pearl Harbor, the Holocaust, and the Cold War. Films from around the world will be examined for their context in history, as well as for their inherent cinematic qualities. The course will examine how cinema has influenced world events, as well as how world events have shaped the direction of cinema. S

ART 267 - Intermediate Digital Video/Storytelling

Credits: 3

Class hours: 2 lecture and 4 studio

Prereq: "C" or higher in ART 157.

Description: This course examines the technical and aesthetic issues of digital storytelling at the intermediate level. Emphasis is on production management and organization, principles of directing, cinematography, and advanced camera operations. Activities include script writing, storyboard production, directing actors, video and sound recording, lighting, art design, sound design, editing techniques, and DVD production. S, Su

ART 299V - Special Studies

See explanation under the heading of Special Studies.

ASTRONOMY **(ASTR)**

Effective Through Fall 2016:

ASTR 110 - Survey of Astronomy (DP)

Credits: 3

Class hours: 3 lecture

Prereq: Acceptable math placement test score.

Description: This course for the non-science major is an introduction to the astronomical universe and its physical concepts. F, S

Effective Spring 2017:

ASTR 110 - Survey of Astronomy (DP)

Credits: 3

Class hours: 3 lecture

Prereq: Qualified for MATH 100.

Description: This course is an introduction to the astronomical universe including planets, our Sun and Solar System, stars, galaxies, cosmology, and the universe. The focus is on the structure, evolution and dynamics of the physical universe and how properties of light can be used, for example, to determine distance, temperature, composition, and relative speed of nearby stars.

AUTO BODY REPAIR AND PAINTING (ABRP)

ABRP 19 - Introduction to Auto Body Repair

Credits: 2

Class hours: 4 lecture/lab

Comments: Credit by exam is not an available option. May be repeated any number of times for credit.

Description: This class is an introductory course in theory and limited manipulative training in metal work and patch work. *F, S*

ABRP 20 - Introduction to Collision Repair

Credits: 1

Class hours: 2 lecture/lab

Coreq: ABRP 23 and ABRP 26

Description: This course is designed to acquaint the student with the basic skills used in collision repair. Emphasis will be placed on the collision repair career; measuring and mixing; tools and equipment; safety; and writing damage reports. Students will gain an understanding of career opportunities, shop safety practices, personal safety protection, and health and environmental concerns related to the field. *F (every 2 years)*

ABRP 23 - Auto Body Welding

Credits: 4

Class hours: 8 lecture/lab

Coreq: ABRP 20 and ABRP 26

Description: This course is designed to acquaint the student with the basic skills used in auto body welding. Emphasis will be placed on safety; protective clothing; tools and equipment procedures; and techniques of gas metal arc welding (GMAW), oxyacetylene gas welding, and plasma arc cutting. *F (every 2 years)*

ABRP 26 - Non-Structural Analysis and Repair

Credits: 4

Class hours: 8 lecture/lab

Coreq: ABRP 20 and ABRP 23

Description: This course is designed to teach the student conventional and unitized body construction. Emphasis will be placed on what can be repaired and what must be replaced. Students will learn to lay out and fabricate repair panels from gauge sheet metal and repair rust damage. *F (every 2 years)*

ABRP 30 - Non-Structural Analysis Damage Repair

Credits: 3

Class hours: 6 lecture/lab

Prereq: "C" or higher in ABRP 26.

Coreq: ABRP 32, ABRP 34, ABRP 36

Description: This course is designed to teach the student conventional and unitized body construction. Emphasis will be placed on repairing auto panels to manufacturer's specifications. *S (every 2 years)*

ABRP 32 - Structural Analysis Damage Repair/Frame

Credits: 3

Class hours: 6 lecture/lab

Prereq: "C" or higher in ABRP 26.

Coreq: ABRP 30, ABRP 34, ABRP 36

Description: This course provides the student with practical applications in frame inspection, measurement, and repair. Welding applications will be used as needed. Emphasis of this course is on straightening and aligning frames to manufacturer's specifications. *S (every 2 years)*

ABRP 34 - Painting and Refinishing: Surface and Prep/Safety

Credits: 2

Class hours: 4 lecture/lab

Prereq: "C" or higher in ABRP 20.

Coreq: ABRP 30, ABRP 32, ABRP 36

Description: This course is designed to teach the student techniques and methods of preparing the autobody surface for painting. Emphasis will be placed on proper safety procedures and practices for automotive refinishing to include refinishing, to include OSHA guidelines, Right-to-Know Act, and EPA laws and regulations. *S (every 2 years)*

ABRP 36 - Plastics and Adhesives

Credits: 2

Class hours: 4 lecture/lab

Prereq: "C" or higher in ABRP 20.

Coreq: ABRP 30, ABRP 32, ABRP 34

Description: This course is designed to teach the student the techniques and methods of using plastics and adhesives in the repair of domestic and foreign manufactured vehicles. Safety during the mixing and handling of these chemicals will be emphasized. *S (every 2 years)*

ABRP 40 - Structural Analysis Repair/Unibody

Credits: 4

Class hours: 8 lecture/lab

Prereq: "C" or higher in ABRP 32.

Description: This course provides the student with practical applications in unibody inspection, measurement, and repair. Welding applications will be used as needed. Emphasis of this course will be on aligning the unibody to manufacturer's specifications and on the replacement of fixed glass. *F (every 2 years)*

ABRP 42 - Non-Structural Analysis Damage Repair III

Credits: 4

Class hours: 8 lecture/lab

Prereq: "C" or higher in ABRP 30.

Description: This course is designed to teach the student conventional and unitized body construction. The emphasis will be placed on replacing and adjusting auto panels to the manufacturer's specifications. *F (every 2 years)*

ABRP 44 - Painting and Refinishing: Spray Gun Operation I

Credits: 3

Class hours: 6 lecture/lab

Prereq: "C" or higher in ABRP 34.

Description: This course is designed to teach the student spray gun techniques and methods of painting the auto body. The emphasis will be placed on paint mixing, color matching in different types of paint, and the operations of a variety of spray guns used in the auto body industry. *F (every 2 years)*

AUTO BODY REPAIR AND PAINTING (ABRP) • *continued*

ABRP 50 - Painting and Refinishing: Spray Gun Operation II

Credits: 3

Class hours: 6 lecture/lab

Prereq: "C" or higher in ABRP 44.

Description: This course is designed to teach the student techniques and methods of painting the auto body. Emphasis will be placed on paint mixing, matching of colors and types of paint, and the operations of a variety of spray guns used in the auto body industry. Disposal of hazardous wastes will be taught in accordance with applicable laws. *S (every 2 years)*

ABRP 52 - Structural Analysis Damage Repair/Peripheral Components

Credits: 3

Class hours: 6 lecture/lab

Prereq: "C" or higher in ABRP 40.

Description: This course provides the student with practical applications in frame and unibody inspection, measurement, and repair of various domestic and foreign manufactured automobiles. Glass replacement and welding applications will be used as needed. Emphasis is placed on properly repairing the unibody to the manufacturer's specifications.

S (every 2 years)

ABRP 54 - Painting and Refinishing/ Problem Solving

Credits: 3

Class hours: 6 lecture/lab

Prereq: "C" or higher in ABRP 44.

Description: This course is designed to teach the student techniques and methods of correcting problems encountered during the painting process. The causes and cures of finish defects will be studied and procedures established to correct the defects.

S (every 2 years)

ABRP 93V - Cooperative Education

Credits: 1-3

See explanation under the heading of Cooperative Education.

ABRP 99V - Special Studies

See explanation under the heading of Special Studies.

AUTOMOTIVE MECHANICS TECHNOLOGY (AMT)

AMT 16 - Car Care

Credits: 1

Class hours: 1 lecture/lab (semester) or 2 lecture/lab (8 weeks)

Comments: Credit by exam is not an available option. May be repeated any number of times for credit. Open to all students.

Description: This course offers technical information on the history and development of automobiles; the function of the lubricating, cooling, fuel, and electrical systems; the major automobile components; minor trouble-shooting; tire changing; and car maintenance. *F, S*

AMT 18 - Minor Tune-Up and Repair

Credits: 2

Class hours: 1 lecture and 2 lab

Comments: Credit by exam is not an available option. May be repeated any number of times for credit.

Description: This course is designed to help students acquire an understanding of some of the elementary principles involved in the operation and maintenance of the various units of an automobile. Emphasis is upon developing the student's interest in minor automotive repair in a safe and efficient manner. *F, S*

AMT 20 - Introduction to Automotive Technology

Credits: 2

Class hours: 1 lecture and 3 lab

Prereq: Qualified for ENG 106. Qualified for MATH 100 or concurrent enrollment in MATH 75X.

Comments: Credit by exam is not an available option.

Description: This course will cover policies and procedures of the AMT program, shop procedures, safety, use of technical reference manuals, identification and use of hand tools, hazardous material training, employees' Right-to-Know laws, job opportunities in automotive and related areas, preventative maintenance and service procedures, identification

and use of fasteners, and safety check inspection procedures. Besides the noted competencies taught in Engines (AMT 30), additional competencies of automotive computer literacy/electronic information systems, such as repair data, estimating, invoicing/technical writing, and vehicle computer reprogramming will be added. *F*

AMT 30 - Engines

Credits: 6

Class hours: 3 lecture and 9 lab

Prereq: Qualified for ENG 106. Qualified for MATH 100 or concurrent enrollment in MATH 75X. "C" or higher in AMT 20.

Comments: Credit by exam is not an available option.

Description: This course will cover shop safety, tools and all components found in the modern internal combustion engine. The course is designed to provide students with an understanding of the fundamental operation and construction of internal combustion engines. Instruction will include theory and laboratory (shop) activities in which students will learn how to inspect, service, maintain, diagnose, and repair automobile engine malfunctions. This course includes live work. Students are required to have a valid driver's license. *S*

AMT 40B - Fuel and Emissions

Credits: 3

Class hours: 1 lecture and 6 lab

Prereq: Qualified for ENG 106 and either qualified for MATH 100 or concurrent enrollment in MATH 75X.

Comments: Credit by exam is not an available option.

Description: In this course, students learn elementary theories and practical skills in servicing fuel systems, emission systems, electronic fuel injection fuel delivery systems, and electronic fuel injectors. Diagnosis, repair, overhaul of carburetors, and mechanical fuel injections systems are also covered. *F*

AMT 40D - Engine Performance I

Credits: 3

Class hours: 1 lecture and 6 lab

Prereq: Qualified for ENG 106. Qualified for MATH 100 or concurrent enrollment in MATH 75X. "C" or higher in AMT 20, AMT 40B, AMT 40E, and AMT 41.

Comments: Credit by exam is not an available option.

Description: Diagnosis of engine mechanical, batteries, starting systems, charging systems, fuel system delivery (pumps, regulators), fuel injectors, ignition systems, and emission control systems using digital storage oscilloscopes, scanners, and various electronic testers. *F*

AMT 40E - Electrical/Electronic Systems I

Credits: 4

Class hours: 2 lecture and 6 lab

Prereq: Qualified for ENG 106. Qualified for MATH 100 or concurrent enrollment in MATH 75X. "C" or higher in AMT 20.

Description: This course will provide students with fundamental principles of automotive electricity and electronics. Practical skills to diagnose, test, and service battery, starting, charging and lighting systems are covered. Testing and repair of electrical safety devices, wiring, connectors, and relays are also covered. Students are required to have a valid driver's license. *F*

AUTOMOTIVE MECHANICS TECHNOLOGY (AMT) • continued

AMT 40G - Electrical/Electronic Systems II

Credits: 3

Class hours: 1 lecture and 6 lab

Prereq: Qualified for ENG 106. Qualified for MATH 100 or concurrent enrollment in MATH 75X. "C" or higher in AMT 20 and AMT 40E.

Comments: Credit by exam is not an available option.

Description: This course covers essential theories and practical skills in diagnosing and repairing automotive accessory circuits such as power windows, power door locks, power antennas, power mirrors, audio systems, anti-theft systems, power seats, horns, blower fan, and wiper/washer. Also covered are conventional instrumentation, digital instrumentation, and supplemental inflatable restraint (SRS). Students are required to have a valid driver's license. S

AMT 40H - Engine Performance II

Credits: 5

Class hours: 2 lecture and 9 lab

Prereq: Qualified for ENG 106. Qualified for MATH 100 or concurrent enrollment in MATH 75X. "C" or higher in AMT 40E.

Comments: Credit by exam is not an available option.

Description: Computer engine management systems of domestic and foreign cars are studied in this course. Covers theory of operation, diagnosis and repair of sensors, actuators, and on-board computers. Use of scanners, digital storage oscilloscopes, digital graphing multi-meters, and DVOMs are covered. S

AMT 41 - Ignition Systems

Credits: 2

Class hours: 1 lecture and 3 lab

Prereq: Qualified for ENG 106. Qualified for MATH 100 or concurrent enrollment in MATH 75X. "C" or higher in AMT 40E.

Comments: Credit by exam is not an available option.

Description: This course studies the basic function of an ignition system, as well as its components and their functions. The operation and testing of ignition coils, electronics sensing devices (sensors, pickups), primary side ignition wiring, secondary side ignition wiring and components, and ignition modules. The operation, maintenance, diagnosis, and repair of distributorless ignition (EI) are also covered. F

AMT 43 - Heating and Air Conditioning

Credits: 4

Class hours: 2 lecture and 6 lab

Prereq: Qualified for ENG 106. Qualified for MATH 100 or concurrent enrollment in MATH 75X.

Comments: Credit by exam is not an available option.

Description: This course provides theory of operation as well as the methods to diagnose and repair the modern HVAC systems. The terminology used and the varieties of different systems encountered are covered. Service procedures, both old and new (with regard to new regulations), are covered. S

AMT 46 - Manual Drive Trains and Axles

Credits: 4

Class hours: 2 lecture and 6 lab

Prereq: Qualified for ENG 106. Qualified for MATH 100 or concurrent enrollment in MATH 75X.

Comments: Credit by exam is not an available option.

Description: This course covers the theory and fundamental operating principles of the modern automotive drive trains and axles. Students learn maintenance and repair of C-V shafts, propeller shafts, U-joints, standard transmissions, standard transaxles, rear axles, and differentials. S

AMT 50 - Automatic Transmissions/Transaxles

Credits: 4

Class hours: 2 lecture and 6 lab

Prereq: Qualified for ENG 106. Qualified for MATH 100 or concurrent enrollment in MATH 75X.

Comments: Credit by exam is not an available option.

Description: This course is designed to provide the student with the elementary theories, maintenance, and repair procedures of automatic transmissions. Also covered are linkage adjustments, oil change, diagnosis, and road test. F

AMT 53 - Brakes

Credits: 3

Class hours: 1 lecture and 6 lab

Prereq: Qualified for ENG 106. Qualified for MATH 100 or concurrent enrollment in MATH 75X.

Comments: Credit by exam is not an available option.

Description: This course is designed to introduce theory covering the basic principles in the operation of the modern automotive brake system. Further development in new technology such as computerized ABS (Anti-skid Brake Systems), electronic power brakes, and four-wheel disc brakes will be covered. Repair and service techniques of the complete brake system will be demonstrated. F

AMT 55 - Suspension and Steering

Credits: 4

Class hours: 2 lecture and 6 lab

Prereq: Qualified for ENG 106. Qualified for MATH 100 or concurrent enrollment in MATH 75X.

Comments: Credit by exam is not an available option.

Description: This course is designed to provide the student with related technical information in the operation, construction, design, maintenance, and repair of suspension and steering systems in the modern automobile. Modern four-wheel alignment is also covered. F

AUTOMOTIVE MECHANICS TECHNOLOGY (AMT) • continued

AMT 60 - Diagnostic and Repair

Credits: 4

Class hours: 1 lecture and 9 lab

Prereq: Qualified for ENG 106. Qualified for MATH 100 or concurrent enrollment in MATH 75X.

Comments: Credit by exam is not an available option.

Description: This course is designed to provide the student with realistic on-the-job types of training. Students will be exposed to different types of live jobs to build self-confidence, improve their approach to troubleshooting, and improve their skills of the trade with emphasis on accuracy, neatness, and speed. S

AMT 80 - Introduction to Small Engines Repair

Credits: 2

Class hours: 1 lecture and 2 lab

Comments: Credit by exam is not an available option.

Description: This class introduces students to the field of small gasoline engine repair. An overview of job opportunities and skills required is included. The course emphasizes shop safety, tool use and identification, and the general construction and repair of small gasoline engines. F, S

AMT 93V - Cooperative Education

See explanation under the heading of Cooperative Education.

AMT 99V - Special Studies

See explanation under the heading of Special Studies.

AMT 171 - HEV I - Introduction to Hybrid and Electric Vehicle Technology

Credits: 3

Class hours: 1 lecture and 6 lab

Prereq: "C" or higher in AMT 40E and ETRO 18; Or automotive industry work experience with instructor's approval.

Recommended: Basic electrical knowledge of Ohm's Law and proper use of a DVOM to determine voltage drop,

shorts, opens, and resistance problems. Knowledge on basic theory of operation on automotive electrical and mechanical subsystems.

Description: This course is designed to familiarize the student with the safety, electrical and electronic theories related to hybrid and electric vehicles, high voltage analysis tools used in hybrid and electric vehicles, high voltage safety systems, AC induction electric machines, and permanent magnet electric motors theory and construction. Hands-on application to safety disconnect and use of high voltage analysis tools to perform basic checks. F

AMT 172 - HEV II - Preventive Maintenance and Repair

Credits: 3

Class hours: 1 lecture and 6 lab

Prereq: "C" or higher in AMT 40E, ETRO 18, and AMT 171; Or automotive industry work experience with instructor's approval.

Recommended: Basic electrical knowledge of Ohm's Law and proper use of a DVOM to determine voltage drop, shorts, opens, and resistance problems. Knowledge on basic theory of operation on automotive electrical and mechanical subsystems.

Description: This course is designed to familiarize the student with hybrid and electric vehicle safety, hybrid internal combustion engines (ICE), regenerative braking systems, high voltage climate control system, power inverter and battery pack cooling systems, high voltage analysis tools used, high voltage safety systems, and 12 volt systems used in hybrid and electric vehicles. Hands-on application to safety disconnect, use of high voltage analysis tools to perform basic checks, and perform service and preventive maintenance on hybrid and electric vehicles. S

AMT 173 - HEV III - Diagnostic and Repair

Credits: 3

Class hours: 1 lecture and 6 lab

Prereq: "C" or higher in AMT 40E, ETRO 18, and AMT 171; Or automotive industry work experience with instructor's approval.

Recommended: Basic electrical knowledge of Ohm's Law and proper use of a DVOM to determine voltage drop, shorts, opens, and resistance problems. Knowledge on basic theory of operation on automotive electrical and mechanical subsystems.

Description: This course is designed to familiarize the student with hybrid and electric vehicle safety, hybrid internal combustion engines (ICE), hybrid transmissions, parallel/series, power inverter system, AC induction electric machines, permanent magnet electric motors theory and construction, and battery pack construction. Hands-on application to safety disconnect, use of high voltage analysis tools to perform diagnostic tests on high voltage insulation failures, electric motor failures, battery failures, and differentiate between an ICE failure and an electric machine failure. Perform battery pack testing and reconditioning. S

AMT 177 - Automotive Diesel Fuel System

Credits: 2

Class hours: 1 lecture and 3 lab

Prereq: "C" or higher in AMT 30 or automotive industry work experience with instructor's approval.

Recommended: Knowledge of basic theory on operations of automotive engines and fuel and emission systems.

Description: This course is designed to provide the student with technical knowledge and skill in servicing and troubleshooting the fuel injector system of the automotive diesel engine.

BIOLOGY **(BIOL)**

BIOL 100 - Human Biology (DB)

Credits: 3

Class hours: 3 lecture

Prereq: Qualified for ENG 100.

Description: This general science course emphasizes basic science concepts by studying human anatomy and physiology. The course introduces students to the structure and function of cells, tissues, organs, and systems of the human body. This course includes a study of the disease process and recent scientific advances. *F*

BIOL 100L - Human Biology Laboratory (DY)

Credits: 1

Class hours: 3 lab

Prereq: "C" or higher in or concurrent enrollment in BIOL 100.

Coreq: BIOL 100

Description: This lab course complements the human biology lecture with an emphasis on basic science concepts using the gross and microscopic anatomy and physiology of the ten systems of the human body. *F*

BIOL 110V - Projects in Biology

Credits: 1-2

Class hours: Meetings arranged

Prereq: "C" or higher in BIOL 101, BOT 101, or ZOOL 101. Approval of instructor.

Comments: May be repeated once for credit.

Description: This class offers the opportunity to use equipment, techniques, or materials not ordinarily used in regular biology courses. The student will be actively involved with developing procedures, making adaptations, and constructing an apparatus used in the course. *F, S, Su*

BIOL 123 - Introduction to Science: Hawaiian Environment (DB)

Credits: 3

Class hours: 3 lecture

Prereq: Qualified for ENG 100.

Coreq: BIOL 123L

Description: This general biology survey course will emphasize the interaction of science with society illustrated by topics in geology, meteorology, oceanography, and biology of the Hawaiian Islands. *S*

BIOL 123L - Hawaiian Environment Science Laboratory (DY)

Credits: 1

Class hours: 3 lab

Coreq: BIOL 123

Description: This one credit, three-hour laboratory complements BIOL 123 lecture which needs to be taken concurrently. Subject matter illustrates topics and methods in science using examples from Hawaiian Natural History. *S*

BIOL 171 - Introduction to Biology I (DB)

Credits: 3

Class hours: 3 lecture

Coreq: BIOL 171L and CHEM 151 (or CHEM 161)

Recommended: ENG 100 or equivalent.

Comments: Cross-listed with MARE 171.

Description: This course covers introductory biology with a marine emphasis for all life science majors including cell structure, chemistry, growth, reproduction, genetics, evolution, viruses, bacteria, and simple eukaryotes. *F*

BIOL 171L - Introduction to Biology Laboratory I (DY)

Credits: 1

Class hours: 3 lab

Coreq: BIOL 171 and CHEM 151 (or CHEM 161)

Comments: Cross-listed with MARE 171L.

Description: The laboratory complements BIOL 171 and must be taken concurrently with the lecture. It is intended to provide laboratory experiences that focus on organic molecules, cell structure, cell functions, and genetics. *F*

BIOL 172 - Introduction to Biology II (DB)

Credits: 3

Class hours: 3 lecture

Prereq: "C" or higher in BIOL 171 and 171L.

Coreq: BIOL 172L

Comments: This course is cross-listed with MARE 172.

Description: BIOL/MARE 172 is a continuation of BIOL/MARE 171 emphasizing anatomy, physiology, and systematic of plants and animals to include behavior, ecosystems, populations, and communities. *S*

BIOL 172L - Introduction to Biology Laboratory II (DY)

Credits: 1

Class hours: 3 lab

Coreq: BIOL 172

Comments: This course is cross-listed with MARE 172L.

Description: This laboratory complements the BIOL 172 lecture and must be taken concurrently with the lecture. It is intended to provide laboratory experiences that focus on a systemic study of the anatomy and physiology of plants and animals, and how they interact in populations, ecosystems, and communities. *S*

BIOL 208 - Field Biology: Island Ecosystems (DB)

Credits: 3

Class hours: 2 lecture and 3 lab

Prereq: Qualified for ENG 100 and MATH 103. Ability to do moderate hiking and outdoor activity.

Recommended: "C" or higher in a biological science course and laboratory (BIOL 123/123L; BOT 101, BOT 130/130L; SCI 121/121L).

Comment: The laboratory is part of the class.

Description: Oceanic island communities in the Pacific, such as Hawai'i, offer a unique and exciting environmental setting for a hands-on experiential field biology course. This course will provide students with an opportunity to perform standardized tests and field research techniques to collect current data on specific island ecosystems. Students will learn to analyze the data and relate the information they have acquired to the diversity and health of the ecosystem, gaining a greater understanding and appreciation of the changing and fragile nature of island communities. *Su*

BLUEPRINT READING (BLPR)

BLPR 22 - Blueprint Reading

Credits: 3

Class hours: 3 lecture

Prereq: Qualified for ENG 106. Qualified for MATH 82X or "C" or higher or concurrent enrollment in MATH 75X.

Comments: Credit by exam is not an available option.

Description: This course is designed to help students acquire an understanding of some of the basic principles in blueprint reading. Emphasis is on developing interpretation and visualization techniques as they refer to construction drawings and concepts essential to related fields in carpentry, architecture, engineering, and green construction technology. *F*

BLPR 40 - Advanced Blueprint Reading and Estimates

Credits: 3

Class hours: 3 lecture

Prereq: BLPR 22.

Description: This course is designed to help students further acquire an understanding of blueprint reading techniques and basic material and cost estimation. Emphasis is on interpretation of construction relationships between architectural, structural, electrical, and mechanical drawings essential to related fields in carpentry, architecture, engineering, and green construction technology. *S*

BOTANY (BOT)

BOT 101 - General Botany (DB & DY)

Credits: 4

Class hours: 3 lecture and 3 lab

Comments: Credit by exam is not an available option. The laboratory is part of the class.

Description: This course covers the structure, growth, functions, and evolution of plants and their relationship to the environment and human activities. The course will give the student an overall view of the plant kingdom and the integral part that they play in life. The lecture and laboratory are combined in BOT 101. *F*

BOT 105 - Ethnobotany (DS)

Credits: 3

Class hours: 3 lecture

Description: Students explore plants and their influence upon the culture of Hawai'i and Pacific. Uses of cultivated and wild plants are examined. *F, S*

BOT 130 - Plants in the Hawaiian Environment (DB)

Credits: 3

Class hours: 3 lecture

Coreq: BOT 130L

Recommended: Qualified for ENG 23 (Note: For the Fall 2016 only, ENG 97). Concurrent enrollment in MATH 75X.

Description: Introduction to the biological sciences demonstrated through the study of the evolution of plant species and communities of the Hawaiian Islands. The course will include the study of ecological interactions, human impact on the environment, observational skills and scientific inquiry, plant structure and form in relation to function, and the identification and systematics of native and introduced flora. *S*

BOT 130L - Plants in the Hawaiian Environment Laboratory (DY)

Credits: 1

Class hours: 3 lab

Coreq: BOT 130

Recommended: Qualified for ENG 23 (Note: For the Fall 2016 only, ENG 97). Concurrent enrollment in MATH 75X.

Description: BOT 130L is a one-credit laboratory science course designated to accompany BOT 130. The course is a hands-on, experiential approach to the biological sciences. This course will involve students in specific application of lecture materials and concepts through scientific inquiry and field observations. Field trips are included. *S*

BUSINESS EDUCATION (BUS)

BUS 75 - Basic Business Writing

Credits: 3

Class hours: 3 lecture

Description: This course covers basic strategies and skills for writing effective memos, letters, and e-mail messages. Concepts include writing clearly and concisely, focusing on the audience, and writing with purpose. *F, S*

BUS 120 - Principles of Business

Credits: 3

Class hours: 3 lecture

Description: This course surveys the fundamentals of the American business enterprise and examines the foundations and responsibilities of accounting, business, management, finance, marketing, and the business environment. *F, S*

BUS 130 - Business Communications - Oral

Credits: 3

Class hours: 3 lecture

Comments: Credit by exam is not an available option.

Description: This course gives students an opportunity to develop competence in oral communications within an organizational context. Emphasis is placed upon interviewing and conference discussion, including participation and leadership in groups. Students are involved in personal presentations, including explaining, reporting, briefing, and selling ideas. *F, S*

BUS 175 - Business Communications - Written

Credits: 3

Class hours: 3 lecture

Prereq: "C" or higher in ENG 22 or acceptable reading and writing placement test scores.

Comments: Credit by exam is not an available option.

Description: Students explore and demonstrate skills and techniques for effective business writing. This class uses word processing software to facilitate message creation and revision. *F, S*

BUS 293V - Cooperative Education

Credits: 1-3

Class hours: 1 credit = 75 hours of work experience, 2 credits = 150 hours of work experience, 3 credits = 225 hours of work experience

Prereq: Business program major and "C" or higher in ENT and MGT courses.

Description: Cooperative Education is a supervised field experience that is related to the student's major or career goals. The experience will enable the student to apply knowledge and skills learned in coursework to the business environment. *F, S*

BUSINESS LAW (BLAW)

BLAW 200 - Legal Environment of Business

Credits: 3

Class hours: 3 lecture

Description: This course introduces fundamental principles of law as applied to ordinary business relationships, sources of business law, the essential elements of a contract, the agency and employment relationships, negotiable instruments, bailments, personal property, and the sale of personal property. Emphasis is placed on the Uniform Commercial Code. *F, S*

BUSINESS TECHNOLOGY (BUSN)

BUSN 89 - Electronic Calculating

Credits: 1

Class hours: 1 lecture

Description: 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; and develops the ability to work with numbers and use of a calculator to perform business computations. *F, S*

BUSN 106 - Introduction to Medical Coding

Credits: 3

Class hours: 3 lecture

Prereq: "C" or higher in HLTH 140.

Recommended: Basic computer and keyboarding skills.

Description: This course introduces the procedures to code medical office visits or diagnostic procedures for tracking and billing purposes. Students will use the International Classification of Disease (ICD) and Current Procedural Terminology (CPT) systems as required for medical insurance claims and statistical information tracking in health care facilities. *S*

BUSN 121 - Introduction to Word Processing

Credits: 3

Class hours: 3 lecture

Description: This course covers proper keyboarding techniques, word processing concepts, and document formatting of letters, memos, tables, reports, and email. Basic file management and operating system functions are included. Keyboarding speed and accuracy are emphasized. *F, S*

BUSINESS TECHNOLOGY (BUSN) • continued

BUSN 123 - Word Processing for Business

Credits: 3

Class hours: 3 lecture

Prereq: 35 Gross Words a Minute

(GWAM) or "C" or higher in BUSN 121.

Description: This course uses advanced features from a word processing program to create business documents emphasizing production and proofreading. This course integrates knowledge of the internet and the computer, and it includes timed computer keyboarding skills for creating and editing business documents and sending electronic attachments.

F, S

BUSN 130 - Spreadsheet and Database

Credits: 3

Class hours: 3 lecture

Recommended: BUSN 121 and BUSN 189.

Description: This course introduces students to the basic functions of spreadsheet and database programs. It includes the input, retrieval, and processing of alphanumeric data on computerized spreadsheet and database programs. Students will develop proficiency in designing worksheets and databases. F, S

BUSN 150 - Introduction to Business Computing

Credits: 3

Class hours: 3 lecture

Prereq: Qualified for ENG 100.

Recommended: "C" or higher in BUSN 121 or ability to keyboard by touch.

Description: This course is 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. F, S

BUSN 151 - Intermediate Business Computing

Credits: 3

Class hours: 3 lecture

Prereq: "C" or higher in BUSN 150.

Description: This course expands the concepts of business computing introduced in BUSN 150, broadens the knowledge of word processing, spreadsheet, database, and presentation software utilizing intermediate- and advanced-level features of the software, and provides experience with typical business applications that utilize the intranet and internet technologies. Students develop greater proficiency in creating, modifying, and printing documents, spreadsheets, database queries, reports, and forms. S

BUSN 158 - Social Media and Collaboration Tools for Business

Credits: 3

Class hours: 3 lecture

Prereq: Qualified for ENG 100.

Recommended: Basic computer, internet, and keyboarding skills.

Description: This course introduces students to social media, collaboration, and Web 2.0 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. F

BUSN 159 - Creating and Managing the Virtual Office

Credits: 3

Class hours: 3 lecture

Prereq: Qualified for ENG 100 or concurrent enrollment in ENG 100 and ENG 100X. "C" or higher in BUSN 123, BUSN 150, and BUSN 164.

Recommended: Basic computer, internet, and keyboarding skills.

Description: This course will explore 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. S

BUSN 160 - Telephone Techniques and Communications

Credits: 1

Class hours: 1 lecture

Description: Students will learn to develop positive telephone communication skills (professional relationships, a positive image, and reliable customer service). They will also study how current technology facilitates information processing. Emphasis will be on answering and using the telephone efficiently and courteously and taking messages effectively. F, S

BUSN 161B - Customer Service - Basic Concepts

Credits: 1

Class hours: 1 lecture

Description: This course covers basic customer service concepts, which include gaining customer loyalty, handling difficult customers, and exceeding customer expectations. F, S

BUSN 164 - Career Success

Credits: 3

Class hours: 3 lecture

Prereq: Qualified for ENG 100 or concurrent enrollment in ENG 100 and ENG 100X.

Recommended: Computer experience using a word processing program.

Description: This course presents concepts and theories relating to workplace behavior, managing one's attitude, and building relationships for workplace effectiveness. F

BUSN 166 - Professional Employment Preparation

Credits: 1

Class hours: 1 lecture

Recommended: Ability to keyboard and knowledge of word processing.

Description: This course facilitates employment search by emphasizing professional techniques and standards in the preparation of application forms, résumés, cover letters, and employment interviews. F, S

BUSINESS TECHNOLOGY

(BUSN) • continued

BUSN 170 - Records and Information Management

Credits: 3

Class hours: 3 lecture

Recommended: Ability to keyboard at 30 words a minute (w.a.m.).

Comments: Credit by exam is not an available option.

Description: The course studies principles of 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; study and application of Association of Records Managers and Administrators (ARMA) rules for alphabetic, alphanumeric, geographic, numeric, and subject methods. *F, S*

BUSN 179 - Business English

Credits: 3

Class hours: 3 lecture

Prereq: "C" or higher in BUSN 123. Qualified for ENG 100.

Description: This course is the study of language fundamentals needed to communicate effectively in a business environment. Basic language skills include grammar, usage, punctuation, capitalization, number style, and spelling. *S*

BUSN 189 - Business Mathematics

Credits: 3

Class hours: 3 lecture

Description: This course introduces various accounting and finance computational procedures utilizing various electronic calculating tools. Students will survey concepts in algebra, logical structure, numeration systems, and statistics. Students will also develop critical thinking skills in making personal and business decisions. *F, S*

BUSN 193V - Cooperative Education

Credits: 1-3 (1 hour per week with coordinator and 75 hours work experience for each credit)

Prereq: Approval of instructor.

Comments: May be repeated for a maximum of 3 credits.

Description: Cooperative Education provides practical career-related work experience through a program used nationally in colleges and universities to apply classroom knowledge and to develop job competencies. Full-time or part-time work in the private and public sectors is utilized for this program. The number of credits earned depends upon the number of hours spent at the job station during the semester.

F, S

BUSN 199V - Special Studies

See explanation under the heading of Special Studies.

CARPENTRY (CARP)

CARP 19B - Minor Home Repairs and Maintenance Fabrication

Credits: 2

Class hours: 3 lecture/lab

Comments: Credit by exam is not an available option. May be repeated any number of times for credit.

Description: An advanced course for homeowners in theory and manipulative skills involved in the use of hand tools and machinery dealing with the repair and fabrication of various segments of home constructions. Safety will be stressed throughout the course. F, S

CARP 20B - Introduction to Carpentry I

Credits: 3

Class hours: 1 lecture and 4 lecture/lab

Comments: Credit by exam is not an available option. May be repeated any number of times for credit.

Description: This is an introductory course into the theory and manipulative skills involved in the use of the basic hand and power tools used in carpentry. The course provides practical experience in repairs and alterations to a typical home. F

CARP 20C - Introduction to Carpentry II

Credits: 8

Class hours: 3 lecture, 2 lecture/lab, and 12 lab

Prereq: "C" or higher in CARP 20B.

Description: This is an introductory course in carpentry technology. Students will develop basic carpentry skills required by the industry. This course will cover the use, safety, and maintenance of hand and power tools, identification and application of materials, assembly methods, and basic material takeoff. Emphasis will be on sustainable construction practices. F

CARP 22B - Concrete Forms I

Credits: 5

Class hours: 2 lecture and 9 lab

Prereq: "C" or higher in CARP 20C.

Description: This course focuses on the theory and practice of concrete form construction, including forms for footings and walls. Other topics include the study of concrete and concrete products, form construction terminology, and form materials and methods. Projects include on-site building foundation layout using the transits and levels. Safety practices in form construction are stressed. S

CARP 22C - Concrete Forms II

Credits: 6

Class hours: 3 lecture and 9 lab

Prereq: "C" or higher in CARP 22B.

Description: This course covers the theory and practice of concrete form construction, including forms for beams, stairs, and above-grade slabs. Other topics include the study of new building materials used in form construction and methods. Projects include on-site building foundation layout using the transits and levels. Safety practices in form construction. S

CARP 41B - Rough Framing and Exterior Finish I

Credits: 6

Class hours: 3 lecture and 9 lab

Prereq: "C" or higher in CARP 20C.

Description: This is a course on the theory and practice in construction of framing walls, rough openings, floors, and exterior wall coverings and exterior trim. Other topics include floor framing methods and layout, roof framing methods and layout, and introduction to sustainable building construction practices. Safety is stressed throughout the course. F, S

CARP 41C - Rough Framing and Exterior Finish II

Credits: 5

Class hours: 2 lecture and 9 lab

Prereq: "C" or higher in CARP 41B.

Description: This is a course on the theory and practice in construction of partition walls, interior and exterior stairs layout and construction, as well

as exterior siding and trim. Other topics include truss design and layout, and quantity and material estimates. Safety is stressed throughout the course. F, S

CARP 42B - Finishing I

Credits: 6

Class hours: 3 lecture and 9 lab

Prereq: "C" or higher in CARP 20C.

Description: In this course, students are introduced to the safe installation of materials for finishing the interior surfaces of a framed house. Students will install, repair, and prepare drywall for painting. Hardwood, laminate, and resilient floorings will be covered as will door and window installation and molding trim. Estimating on a time and materials basis and calculating labor cost are introduced. The goal of the class is to present the best practices to achieve professional results and produce a durable and sustainable product. S

CARP 42C - Finishing II

Credits: 5

Class hours: 2 lecture and 9 lab

Prereq: "C" or higher in CARP 42B.

Description: In this course, students will be introduced to shop woodworking tools and their safe use producing and installing complex moldings. Wood joinery as it pertains to interior stairs, cabinetry, and countertops will result in an understanding of the millwork package necessary to finish a living space. The goal of the class is to present the best practices to achieve professional results and produce a durable and sustainable product. S

CARP 93V - Cooperative Education

See explanation under the heading of Cooperative Education.

CARP 99V - Special Studies

See explanation under the heading of Special Studies.

CHEMISTRY (CHEM)

CHEM 151 - Elementary Survey of Chemistry (DP)

Credits: 3

Class hours: 3 lecture

Prereq: Qualified for ENG 100. "C" or higher in MATH 75X or MATH 82X.

Coreq: CHEM 151L

Description: This survey of general principles and descriptive chemistry is intended for students with no previous background in chemistry. Topics include atoms and molecules; moles and formulas; properties of solids, liquids, and gases; enthalpy and entropy; acids and bases; chemical composition; stoichiometry; and equilibria. *F, S, Su*

CHEM 151L - Elementary Survey of Chemistry Laboratory (DY)

Credits: 1

Class hours: 3 lab

Prereq: "C" or higher in MATH 75X or MATH 82X.

Coreq: CHEM 151

Description: In this course, students are introduced to the illustration and practice of laboratory techniques as well as application of the chemical principles presented in CHEM 151. *F, S, Su*

CHEM 161 - General Chemistry I (DP)

Credits: 3

Class hours: 3 lecture

Prereq: "C" or higher in MATH 82X.

Coreq: CHEM 161L

Description: An introduction to the basics of college chemistry. Topics include measurements; atomic, quantum, and chemical bonding theories; stoichiometry; chemical reactions; thermochemistry; and gaseous, liquid, and solid states.

F (every 2 years)

CHEM 161L - General Chemistry Laboratory I (DY)

Credits: 1

Class hours: 3 lab

Coreq: CHEM 161

Comments: Credit by exam is not an available option.

Description: Introduction to chemical principles and procedures in the laboratory. *F (every 2 years)*

CHEM 162 - General Chemistry II (DP)

Credits: 3

Class hours: 3 lecture

Prereq: "C" or higher in CHEM 161.

Coreq: CHEM 162L

Description: An introduction to the basics of college chemistry. Topics include chemical kinetics, chemical equilibrium, acid-bases, acid-base equilibrium, solubility equilibrium, entropy, electrochemistry, coordination, and nuclear chemistry. *S (every 2 years)*

CHEM 162L - General Chemistry Laboratory II (DY)

Credits: 1

Class hours: 3 lab

Coreq: CHEM 162

Comments: Credit by exam is not an available option.

Description: Introduction to chemical principles and procedures in the laboratory. *S (every 2 years)*

COOPERATIVE EDUCATION

Cooperative Education

Credits: 1-3

Class hours: 1 hour per week seminar and 75 hours work experience for each credit.

Prereq: Approval of instructor.

Comments: May be repeated with approval of the instructor.

Description: Cooperative Education is a program that integrates classroom studies with work experience directly related to a student's academic field of study. Field experiences may be on- or off-campus, paid or volunteer, part- or full-time. Students earn one to three college credits in this formal program (1 credit = 75 hours, 2 credits = 150 hours, 3 credits = 225 hours). A student's current employment may qualify as a student's co-op site if it directly relates to that student's field of study.

If a student does not work in a position that qualifies as a co-op site, the instructor will locate a volunteer site from a group of participating agencies in business, industry, and government. If students need a paid co-op experience, they are expected to find their own paying co-op sites.

Co-op field experiences are a graduation requirement for the Hospitality and Tourism as well as the Business Technology programs. These degree programs view Cooperative Education as a capstone or exit experience within their program curriculum.

BUSN 193V for business technology majors.

HOST 293V for hospitality and tourism majors.

CULINARY ARTS **(CULN)**

CULN 101B - Introduction to Food Service, Basic Skills, and Sanitation

Credits: 4

Class hours: 1 lecture and 6 lecture/lab

Description: This course will provide an overview of the rapidly growing food service industry from entry level to management positions. Students will learn the basic skills needed to enter an entry-level position with an emphasis on sound work ethics and attitudes required to seek employment in the food service industry. *F*

CULN 101C - Introduction to Food Service, Short Order, and Quantity Food Cookery

Credits: 4

Class hours: 1 lecture and 6 lecture/lab

Prereq: "C" or higher in CULN 101B.

Description: This course will provide an overview of the rapidly growing food service industry from entry level to management positions. The students will reinforce the basic skills needed to enter an entry level position with an emphasis on sound work ethics and attitudes required to seek employment in the food service industry. This course emphasizes high production standards, attractive service, use of proper equipment, and efficient use of time. Students will demonstrate principles in quantity food preparation using large quantity equipment. This course also stresses food selection, proper food storage/sanitation, and recipe and product evaluations. *F*

CULN 102B - Introduction to Food Service, Breakfast Cookery, and Cafeteria Service

Credits: 4

Class hours: 1 lecture and 6 lecture/lab

Description: This course will provide an overview of the rapidly growing food service industry with the basic skills needed to enter an entry level position with an emphasis on sound work ethics and attitude required to seek employment in the food service industry. This course emphasizes high production standards, attractive service, use of proper equipment, and efficient use of time. The course also stresses

food selection, proper food storage/sanitation, and recipe and product evaluations. This course introduces students to breakfast short order cooking concepts and includes instruction and practical application in the following: eggs cooked to order, omelets, pancakes, waffles, French toast, and hot cereals. Students will also be trained in offering weekly specials for cafeteria operation. *S*

CULN 102C - Introduction to Food Service, Pantry Development, and Basic Baking

Credits: 4

Class hours: 1 lecture and 6 lecture/lab

Prereq: "C" or higher in CULN 102B.

Description: This course will provide an overview of the rapidly growing food service industry with the basic skills needed to enter an entry level position with an emphasis on sound work ethics and attitudes required to seek employment in the food service industry. This course emphasizes high production standards, attractive service, use of proper equipment, and efficient use of time. The course also stresses food selection, proper food storage/sanitation, and recipe and product evaluations. Students will gain knowledge and skills in the preparation and presentation of hot and cold sandwiches, salads, and salad dressings. This course is an introduction to baking, emphasizing the basic formulas, fundamentals, and procedures. *S*

CULN 111 - Introduction to the Culinary Industry

Credits: 2

Class hours: 2 lecture

Description: This course 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. *F*

CULN 112 - Sanitation and Safety

Credits: 2

Class hours: 2 lecture

Prereq: Qualified for ENG 106.

Recommended: Qualified for ENG 21.

Description: This course is the study and application of principles and procedures of sanitation and safety in the hospitality industry. This course includes the study of foodborne illnesses, biological hazards, chemical hazards, physical hazards, and cross-contamination as they may occur during the flow of food. An introduction to Hazard Analysis Critical Control Point (HACCP) and other sanitation and safety programs will also be presented. Safety issues and Occupational Safety and Health Administration (OSHA) guidelines and standards will be covered as they apply to the hospitality industry. *F*

CULN 115 - Menu Merchandising

Credits: 2

Class hours: 2 lecture

Prereq: "C" or higher in BUSN 189 or qualified for MATH 100 or higher and ENG 100 or higher.

Coreq: CULN 275 and CULN 294

Description: This course is a study of the factors involved in planning effective menus for a variety of food service operations. This course includes the design, format, selection, costing, pricing, and balance of menu items based on an understanding of the needs of various target markets. *S*

CULN 116 - Introduction to Culinary Sustainability

Credits: 1

Class hours: 1 lecture

Description: This course overviews a variety of sustainable practices, and examines how to implement them in a food service operation. Students will learn to combine elements of purchasing/receiving, energy and water conservation, and recycling to help control costs while reaping the benefits of being good environmental stewards.

CULINARY ARTS **(CULN) • continued**

CULN 120 - Fundamentals of Cookery

Credits: 4

Class hours: 2 lecture/lab and 9 lab

Prereq: Qualified for ENG 106. Qualified for MATH 82X. "C" or higher or concurrent enrollment in CULN 112.

Description: This course is an introduction to the fundamental concepts, skills, and techniques of food preparation. Course coverage includes basic cooking methods for meats, stocks, soups, sauces, seafood, vegetables, and starches. Students will learn to identify, use, and maintain all equipment, tools, and utensils in a safe and sanitary manner. *F*

CULN 130 - Intermediate Cookery

Credits: 5

Class hours: 1 lecture, 2 lecture/lab, and 9 lab

Prereq: "C" or higher in CULN 120.

Description: This course applies the basic concepts, skills, and techniques taught in CULN 120 to short order cookery, including breakfast cookery, as found in the coffee shops, snack bars, and other quick-service outlets, with emphasis in American Cuisine, quantity food production, menu development, recipe standardization and conversion, and quality control. This course includes quantity food production and short order cookery experiences in the College's cafeteria. *F*

CULN 150 - Fundamentals of Baking

Credits: 5

Class hours: 1 lecture, 2 lecture/lab, and 9 lab

Prereq: "C" or higher in CULN 130.

Description: This course provides instruction in the study and development of basic skills in baking as practiced and required in the food industry. Theory and laboratory work will provide the student with knowledge and skills in the preparation of breakfast breads, pastries, bread, and rolls. *S*

CULN 160 - Dining Room and Beverage Service

Credits: 5

Class hours: 1 lecture, 2 lecture/lab, and 9 lab

Prereq: "C" or higher in CULN 150.

Description: This course is a study and application of the variety of service styles such as American, French, and Russian services and techniques practiced by industry with special emphasis on the importance of the coordination between the front and back of the house. This course includes the study of stewarding procedures and a study of the principles and practices of profitable beverage operations and the responsibilities and liabilities associated with alcohol service. In addition, students must successfully achieve certification in the American Heart Association CPR/First Aid Course. *S*

CULN 185 - Culinary Nutrition

Credits: 3

Class hours: 3 lecture

Prereq: Qualified for ENG 106. Qualified for MATH 82X.

Description: This course provides a practical and systematic approach in developing a philosophy about healthful eating. It also provides the necessary guidelines for recipe adaptation and menu planning. *F*

CULN 221 - Continental Cuisine

Credits: 5

Class hours: 1 lecture, 2 lecture/lab, and 9 lab

Prereq: "C" or higher in CULN 150 and CULN 160.

Description: This course expands on the skills gained in Fundamentals of Cookery, Intermediate Cookery, Fundamentals of Baking, and Dining Room and Beverage Service courses, emphasizing creativity and refining skills. It includes practice in preparing cooked-to-order dishes typically served in hotels and fine dining restaurants with emphasis on American and European cuisines. Laboratory work in the college fine dining restaurant emphasizes station organization and culinary experience. *F*

CULN 222 - Asian Pacific Cuisine

Credits: 5

Class hours: 1 lecture, 2 lecture/lab, and 9 lab

Prereq: "C" or higher in CULN 221.

Description: This course is a study of Chinese, Japanese, Thai, Vietnamese, Filipino, and Pacific Island cuisines. This course includes an overview of the history, culture, and foods of Asia and their influence on the foods of Hawai'i. Emphasis is placed on the culinary traditions, artistry, and special uses of fruits, vegetables, spices, herbs, and cooking ingredients commonly used in Asian and Pacific Island cuisines. *F*

CULN 240 - Garde Manger

Credits: 5

Class hours: 1 lecture, 2 lecture/lab, and 9 lab

Prereq: "C" or higher in CULN 221 and CULN 222 or approval of instructor.

Description: This course is a study of the basic garde manger principles as well as the functions and duties of the department as it relates to and integrates with other kitchen operations. The preparation of specialty items such as aspics, chaud-froids, forcemeat, pates, terrines, galantines, mousses, as well as ice sculpturing, tallow sculpturing, and vegetable carving will be covered in this seven and a half week course. *S*

CULN 271 - Hospitality Purchasing and Cost Control

Credits: 4

Class hours: 3 lecture and 3 lab

Prereq: Qualified for MATH 100 or approval of instructor.

Description: This course is an introduction to the principles and practices of purchasing, receiving, storing, and issuing food supplies in a food service organization. Students will be introduced to cost control systems as they apply to restaurants, hotels, and other food and beverage operations. The College's food service complex will serve as the laboratory for class exercises. The course includes preparation and analysis of financial and control-related reports. Students will utilize computer technology to reinforce their practical experiences and introduce examples of technology practiced in industry. *F*

CULINARY ARTS **(CULN) • continued**

CULN 275 - Human Resource Management and Supervision

Credits: 3

Class hours: 3 lecture

Prereq: "C" or higher in CULN 271.
Qualified for ENG 100.

Description: This course is designed to prepare the student for the transition from employee to supervisor in a food service operation. Students will learn to identify and evaluate various leadership styles and techniques. Course content also includes employee training, motivation, and evaluation techniques common in food service operations. S

CULN 294 - Culinary Arts Practicum

Credits: 5

Class hours: 1 lecture, 2 lecture/lab, and 9 lab

Prereq: Approval of instructor or "C" or higher in CULN 185, CULN 240, and CULN 271.

Coreq: CULN 115 and CULN 275

Description: This capstone course is designed to integrate culinary training with academic studies and field experience using fundamental cooking techniques, food science, aesthetics, managerial principles, and sensory perception as the framework. Students will plan, organize, staff, direct, and control a restaurant on campus. They will be responsible for menu designs, service, finances, purchasing, and productivity. The instructor serves as a resource in the areas of market analysis, menu creation and design, cost control, and financial analysis. S

EARLY CHILDHOOD EDUCATION (ECED)

ECED 105 - Introduction to Early Childhood Education

Credits: 3

Class hours: 3 lecture

Prereq: Qualified for ENG 100.

Coreq: ECED 110 and ECED 131

Description: This course introduces and explores the historical roots and fundamental principles of early childhood care and education programs, the variety and scope of programs in the community, issues confronting the field, and career options. Students learn about and practice using observation and assessment tools to record children's growth and learning. *F*

ECED 110 - Developmentally Appropriate Practices

Credits: 3

Class hours: 3 lecture

Prereq: Qualified for ENG 100.

Coreq: ECED 105 and ECED 131

Description: This course provides an overview and basic awareness, knowledge, and skills necessary for working with children from birth through age eight, including those with special needs. It also introduces concepts of developmentally appropriate practices, the value of play, safe and healthy learning environments and appropriate child guidance. *F*

ECED 115 - Health, Safety, and Nutrition for the Young Child

Credits: 3

Class hours: 3 lecture

Prereq: "C" or higher in ECED 140, ECED 192, and ECED 245.

Coreq: ECED 190

Description: This course introduces theories and practices for creating and maintaining a safe, healthy learning environment for young children and adults in group settings. It introduces guidelines and practices for providing for the nutritional needs of young children and adults in group settings. *S*

ECED 131 - Child Development: Theory Into Practice

Credits: 3

Class hours: 3 lecture

Prereq: Qualified for ENG 100.

Coreq: ECED 105 and ECED 110

Description: This course covers principles of human development from conception through early childhood. It focuses on the interrelation of physical, cognitive, emotional, and social aspects of the individual during this period and how this information about development affects one's expectations and relationship to the individual child. *F*

ECED 140 - Guidance of Young Children in a Group Setting

Credits: 3

Class hours: 3 lecture

Prereq: "C" or higher in ECED 105, ECED 110, and ECED 131.

Coreq: ECED 192 and ECED 245

Description: This course addresses positive ways to support children's social-emotional development. It focuses on adult-child and child-child interactions and relationships. *S*

ECED 170 - Introduction to Working with Infants and Toddlers

Credits: 3

Class hours: 3 lecture

Prereq: "C" or higher in ECED 115 and ECED 190.

Coreq: ECED 263, ECED 264, and ECED 290C

Description: This course provides an overview of infant-toddler development, risk factors that impact development, and appropriate community resources and services. Its focus is on respectful, responsive, and reciprocal practices within the framework of a curriculum based upon caregiving routines. *F*

ECED 190 - Field Experience in Early Childhood Education I

Credits: 4

Class hours: 8 lecture/lab

Prereq: "C" or higher in ECED 140, ECED 192, and ECED 245.

Coreq: ECED 115

Description: This course provides a mid-program supervised work experience in an early childhood education and care setting. It is designed to support students in integrating content knowledge with practice. *F*

ECED 192 - Beginning Preschool Seminar and Laboratory

Credits: 2

Class hours: 4 lecture/lab

Prereq: "C" or higher in ECED 105, ECED 110, and ECED 131.

Coreq: ECED 140 and ECED 245

Description: This course provides an introductory supervised work experience in an early childhood education and care setting. This course is designed to support students in integrating content knowledge with practice. *F, S*

ECED 199V - Special Studies

See explanation under the heading of Special Studies.

ECED 245 - Child, Family, and Community

Credits: 3

Class hours: 3 lecture

Prereq: "C" or higher in ECED 105, ECED 110, and ECED 131.

Coreq: ECED 140 and ECED 192

Description: This course will focus on developing skills for establishing effective relationships between the early childhood professional and families of the children with whom the professional is working. *S*

ECED 263 - Language and Creative Expression Curriculum

Credits: 3

Class hours: 3 lecture

Prereq: "C" or higher in ECED 115 and ECED 190.

Coreq: ECED 170, ECED 264, and ECED 290C

Description: This course will focus on the theoretical foundation and practice in the planning, implementation, and assessment of the language arts and creative expression curriculum. *S*

ECED 264 - Inquiry and Physical Curriculum

Credits: 3

Class hours: 3 lecture

Prereq: "C" or higher in ECED 115 and ECED 190.

Coreq: ECED 170, ECED 263, and ECED 290C

Description: This course will focus on the theoretical foundation and practice in planning, implementation, and assessment of the inquiry and physical curriculum. *F*

EARLY CHILDHOOD EDUCATION **(ECED) • continued**

ECED 290C - Field Experience in Early Childhood Education II

Credits: 4

Class hours: 8 lecture/lab

Prereq: "C" or higher in ECED 115 and ECED 190.

Coreq: ECED 170, ECED 263, and ECED 264

Description: This course provides a final supervised work experience in an early childhood education and care setting. It is designed to support students in integrating content knowledge with practice. *F, S*

ECED 299V - Special Studies

See explanation under the heading of Special Studies.

EAST ASIAN LANGUAGE AND LITERATURE **(EALL)**

EALL 272 - Japanese Literature in Translation-Modern (DL)

Credits: 3

Class hours: 3 lecture

Prereq: "C" or higher in ENG 100.

Comment: Knowledge of Japanese language is not required.

Description: This course introduces students to representative Japanese poetry, fiction, and drama in translation from the beginning of the Meiji era in 1868 to the present, along with a few classical works from earlier periods as cultural background. *S*

E-COMMERCE **(ECOM)**

ECOM 100 - Introduction to E-Commerce

Credits: 3

Class hours: 3 lecture

Recommended: Working knowledge of personal computer systems and the ability to operate standard web browsers and use email comfortably. Knowledge of data communications systems would be very helpful.

Description: This course provides an introduction to the technology and history of the internet and its use as an electronic commerce medium from informational websites to full online retail systems. Included in this introductory survey course will be an analysis and evaluation of retail and business-to-business internet-based systems. Coursework includes webpage design and the construction of a business-style website, and in-depth internet and email marketing techniques. *F, S*

ECONOMICS **(ECON)**

ECON 130 - Principles of Microeconomics (DS)

Credits: 3

Class hours: 3 lecture

Prereq: Qualified for ENG 100.

Description: In this course, students will study supply, demand, and price determination in a market economy; costs, revenues, and price policies of the firm under conditions of competition and monopoly; and the determination of wages, rent, interest, and profits. *S*

ECON 131 - Principles of Macroeconomics (DS)

Credits: 3

Class hours: 3 lecture

Prereq: Qualified for ENG 100. Qualified for MATH 100 or higher.

Description: This course is an introduction to macroeconomics the analysis of economic systems focusing on the determination and measurement of national income; the role of government through its fiscal and monetary policies to deal with inflation, unemployment and economic growth; and on trade imbalances and exchange rates. *F, S*

ELECTRICAL ENGINEERING (EE)

EE 160 - Programming for Engineers

Credits: 4

Class hours: 3 lecture and 3 lab

Prereq: Qualified for MATH 205 (Calculus I) or concurrent enrollment in MATH 140.

Description: This is an introductory course on computer programming and modern computing environments with an emphasis on algorithm and program design, implementation and debugging. Designed for engineering students, this course includes a hands-on laboratory to develop and practice programming skills.

EE 205 - Object-Oriented Programming

Credits: 3

Class hours: 3 lecture

Prereq: "C" or higher in EE 160 or approval of instructor.

Description: This is a second-level programming course for Engineers. The course introduces the object-oriented programming paradigm focusing on the definition and use of classes along with fundamentals of object-oriented design in a modern object-oriented language such as C++. Other topics include complex data structures, simple searching and sorting techniques, and an introduction to software engineering issues.

EE 211 - Basic Circuit Analysis I

Credits: 4

Class hours: 3 lecture and 3 lab

Prereq: Qualified for MATH 232 (Calculus IV) or concurrent enrollment in MATH 231 (Calculus III).

Description: This course studies linear passive circuits, time domain analysis, transient and steady-state responses, phasors, impedance and admittance; power and energy, frequency responses, and resonance.

EE 213 - Basic Circuit Analysis II

Credits: 4

Class hours: 3 lecture and 3 lab

Prereq: "C" or higher in EE 211. "C" or higher in or concurrent enrollment in MATH 232 (Calculus IV).

Description: This course studies Laplace transforms, Fourier transforms, convolution and the applications to circuits, frequency selective circuits, design of active filters, and state space analysis of circuits.

EE 260 - Introduction to Digital Design

Credits: 4

Class hours: 3 lecture and 3 lab

Prereq: "C" or higher in EE 160.

Description: This course is an introduction to the design of digital systems with an emphasis on design methods and the implementation and use of fundamental digital components.

EE 296 - Sophomore Project

Credits: 1

Class hours: 1 lecture

Prereq: Approval of instructor.

Comments: May be repeated for a maximum of 3 credits.

Description: Sophomore level individual or team project under EE faculty direction and guidance. The project provides design experience and develops practical skills. Repeatable unlimited times.

ELECTRICITY (ELEC)

Effective Through Fall 2016

ELEC 22 - Wiring Materials, Methods and NEC Codes

Credits: 3

Class hours: 1 lecture and 4 lecture/lab

Prereq: "C" or higher in ELEC 20.

Comments: Credit by exam is not an available option.

Description: This course is an introduction to the National Electrical Code (NEC) requirements for branch circuit wiring. The selection and installation of materials and the methods used following NEC guidelines for common electrical circuits within the home are covered. Selection, sizing, and electrical safety requirements are explained as well as basic troubleshooting skills. F, S

Effective Spring 2017

ELEC 22 - Wiring Materials, Methods and NEC Codes

Credits: 3

Class hours: 2 lecture and 2 lecture/lab

Prereq: Qualified for ENG 106 or ENG 100X and either qualified for MATH 82X or concurrent enrollment in MATH 75X or higher; or approval of instructor. "C" or higher or concurrent enrollment in ETRO 18.

Description: This course is an introduction to the National Electrical Code (NEC) requirements for branch circuit wiring. The selection and installation of materials and the methods used following NEC guidelines for common electrical circuits within the home are covered. Selection, sizing, and electrical safety requirements are explained as well as basic troubleshooting skills.

ELEC 30 - Electrical Installation Theory I

Credits: 4

Class hours: 4 lecture

Prereq: Qualified for ENG 106 or ENG 100X. Qualified for MATH 82X or concurrent enrollment in MATH 75X or higher. "C" or higher in ELEC 22.

Coreq: ELEC 32

Description: This course is designed to develop knowledge of basic and advanced residential wiring with emphasis on the National Electrical Code, energy efficiency, and the principles of residential blueprint reading. S

ELECTRICITY **(ELEC) • continued**

ELEC 32 - Electrical Installation Laboratory I

Credits: 6

Class hours: 12 lecture/lab

Prereq: Qualified for ENG 106 or ENG 100X. Qualified for MATH 82X or concurrent enrollment in MATH 75X or higher. "C" or higher in ELEC 22.

Coreq: ELEC 30

Description: This course is designed to provide the basic and advanced knowledge in residential wiring techniques. Laboratory exercises are designed to give students practical experience in different wiring techniques and methods. S

ELEC 40 - Electrical Installation Theory II

Credits: 4

Class hours: 4 lecture

Prereq: "C" or higher in ELEC 30.

Coreq: ELEC 42

Description: This course is designed to develop knowledge of commercial and industrial wiring techniques with emphasis on the National Electrical Code, energy efficiency, and the principles of advanced electrical blueprint reading. F

ELEC 41 - Industrial Motor Controls I

Credits: 3

Class hours: 2 lecture and 2 lecture/lab

Prereq: "C" or higher in ELEC 22.

Description: This is an introduction to motor controls and the logic sequence that they implement. The course covers how to read a ladder diagram, including component recognition, use, and application. Students will develop skills to create a computer generated control diagram from a sequence of operation and learn troubleshooting skills to diagnose basic control functions. S

ELEC 42 - Electrical Installation Laboratory II

Credits: 6

Class hours: 12 lecture/lab

Prereq: "C" or higher in ELEC 30.

Coreq: ELEC 40

Description: This course is designed to advance the knowledge of commercial and industrial wiring techniques with emphasis on the National Electrical Code, energy efficiency, and the principles of advanced electrical blueprint reading. F

ELEC 46 - AC-DC Systems and Equipment

Credits: 6

Class hours: 12 lecture/lab

Prereq: "C" or higher in ELEC 40 and ELEC 42.

Description: This course is designed to advance the student into electrical principles of direct current and alternating current equipment. Emphasis is placed on the theory, operation, control, and power generation of alternative energy systems including photovoltaic, wind, and hydro systems. S

ELEC 70 - Renewable Energy PV I

Credits: 3

Class hours: 1 lecture and 4 lecture/lab

Prereq: "C" or higher or concurrent enrollment in ELEC 22.

Description: This course is designed to prepare the individual for entry into the photovoltaic field. Emphasis is on photovoltaic technology application, incorporating the electrical principles, solar radiation, load analysis, components of a system, maintenance, and types of systems. Successful completion of the course qualifies an individual to take the North American Board of Certified Energy Practitioners (NABCEP) Basic Entry Level exam. F, S

ELEC 75 - Renewable Energy Advanced PV

Credits: 3

Class hours: 1 lecture and 4 lecture/lab

Prereq: "C" or higher in ELEC 70.

Description: This course is designed to advance the student in the photovoltaic field. Emphasis is on the application of photovoltaic systems following the National Electrical Code rules. System sizing, conductor sizing, grounding, and overcurrent protection are covered. Successful completion of the course satisfies the educational requirements for an individual to take the North American Board of Certified Energy Practitioners (NABCEP) Certification exam. F, S

ELEC 85 - Renewable Energy PV Technical Sales

Credits: 3

Class hours: 3 lecture

Prereq: "C" or higher in ELEC 70.

Description: This course is designed to advance the student in the photovoltaic (PV) field. Emphasis is on the understanding of system performance and site evaluation. Energy usage and evaluation to lower energy consumption, developing accurate bid proposals, and utilizing available resources are covered in the course. Successful completion of the course satisfies the educational requirements for an individual to take the North American Board of Certified Energy Practitioners (NABCEP) Certification exam in PV Technical Sales. S

ELEC 99V - Special Studies

See explanation under the heading of Special Studies.

ELECTRONICS (ETRO)

ETRO 18 - General Electronics

Credits: 3

Class hours: 3 lecture

Prereq: Qualified for ENG 23 (Note: For the Fall 2016 only, ENG 97). Qualified for MATH 75X.

Comments: Credit by exam is not an available option.

Description: This introduction to DC, AC, semi-conductor, and digital electronics includes characteristics, applications, power supplies, and amplifiers. The course also includes the use of the oscilloscope and meters. *F, S*

ETRO 93V - Cooperative Education

Credits: 1-3

Class hours: 75 hours of supervised work per credit

Prereq: Approval of instructor.

Description: This course is designed to offer students the opportunity to explore and test career options within the electronics field. *F, S, Su*

ETRO 120 - Electronics I

Credits: 3

Class hours: 3 lecture

Prereq: Acceptance into the Electronics Technology program.

Coreq: ETRO 120L

Comments: Credit by exam is not an available option.

Description: This course covers the basic theory of electricity from the atomic theory to filter circuits. Topics covered include Ohm's Law, Power, Energy, DC and AC circuits, network analysis, sinusoidal and non-sinusoidal voltages and current, resonant circuits, and the use of meters, probes, and oscilloscopes. *F (every 2 years)*

ETRO 120L - Electronics I Lab

Credits: 1

Class hours: 3 lab

Prereq: Acceptance into the Electronics Technology program.

Coreq: ETRO 120

Comments: Credit by exam is not an available option.

Description: This course demonstrates the principles studied in ETRO 120 by means of laboratory experiments. Circuits are constructed and tested using various electronic tools. *F (every 2 years)*

ETRO 121 - Electronic Fabrication and Assembly

Credits: 2

Class hours: 1 lecture and 3 lab

Recommended: ETRO 18.

Comments: Credit by exam is not an available option.

Description: ETRO 121 introduces the students to techniques and hand powered tools currently used by the electronics industry in the manufacture, installation, and repair of electronics equipment. *F*

ETRO 122 - Electronics II

Credits: 3

Class hours: 3 lecture

Prereq: "C" or higher in ETRO 120 and ETRO 120L.

Coreq: ETRO 122L

Comments: Credit by exam is not an available option.

Description: The course teaches practical and theoretical principles of AC and semiconductor circuits, including applications to power supplies, amplifiers, oscillators, integrated circuits, filters, and instrumentation. *S (every 2 years)*

ETRO 122L - Electronics II Laboratory

Credits: 1

Class hours: 3 lab

Prereq: "C" or higher in ETRO 120 and ETRO 120L.

Coreq: ETRO 122

Comments: Credit by exam is not an available option.

Description: This course demonstrates the principles studied in ETRO 122 by means of laboratory experiments. DC/AC electronics and semiconductor theories presented in ETRO 122 lectures are verified and reinforced by building and testing electronic circuits. *S (every 2 years)*

ETRO 140B - Cisco Networking 1

Credits: 3

Class hours: 6 lecture/lab

Recommended: Basic computer and internet usage skills.

Description: This course introduces the architecture, structure, functions, components, and models of the internet and other computer networks. The principles and structure of IPv4 and IPv6 addressing and the fundamentals

of Ethernet concepts, media, and operations are introduced to provide a foundation for the curriculum. By the end of the course, students will be able to build simple LANs, perform basic configurations for routers and switches, and implement IP addressing schemes. *F (every 2 years)*

ETRO 140C - Cisco Networking 2

Credits: 3

Class hours: 6 lecture/lab

Prereq: "C" or higher in ETRO 140B.

Recommended: Basic computer and internet usage skills.

Description: This course introduces the architecture, components, and operations of routers and switches in a small network. Students learn how to configure a router and a switch for basic functionality. By the end of this course, students will be able to configure and troubleshoot routers and switches; implement and troubleshoot common issues with static, RIPv2, single-area OSPFv2, and single-area OSPFv3 routing protocols; implement inter-VLAN routing in both IPv4 and IPv6 networks; secure the network with Access Control Lists (ACLs); and apply essential network services such as Dynamic Host Configuration Protocol (DHCP) for IPv4 and IPv6, and Network Address Translation (NAT). *F, S*

ETRO 143 - Digital Electronics

Credits: 3

Class hours: 3 lecture

Prereq: "C" or higher in ETRO 120 and ETRO 120L.

Coreq: ETRO 143L

Comments: Credit by exam is not an available option.

Description: This course is an introduction to number systems, codes, logic gates, Boolean algebra, and ICs used in digital circuits. Digital design using both logic gates and the VHDL programming language are studied. Analog-to-digital/digital-to-analog and microprocessor interfacing are introduced. *S (every 2 years)*

ELECTRONICS **(ETRO) • continued**

ETRO 143L - Digital Electronics Laboratory

Credits: 1

Class hours: 3 lab

Prereq: "C" or higher in ETRO 120 and ETRO 120L.

Coreq: ETRO 143

Comments: Credit by exam is not an available option.

Description: This course demonstrates the principles studied in ETRO 143 by means of laboratory experiments. Digital electronics concepts presented in ETRO 143 lectures are verified and reinforced by simulating, building, and testing digital electronics and computer circuits. *S (every 2 years)*

ETRO 161 - Introduction to Optics and Photonics

Credits: 3

Class hours: 6 lecture/lab

Prereq: Qualified for ENG 100. Qualified for MATH 103.

Description: This introductory photonics course covers the physics of light, laser safety, geometric optics, lenses, mirrors, polarizing lenses, interference/diffraction waves, laser physics, optical imaging, and bio-photonics. Lab experiments and projects are embedded to reinforce the theory and provide practical experience for those interested in pursuing a career in this field. *F, S*

ETRO 166 - Introduction to Fiber Optics

Credits: 3

Class hours: 3 lecture

Prereq: Qualified for ENG 100. Qualified for MATH 103.

Description: This course is an introduction to fiber optic communications, providing a basic background and featuring "hands-on" training for installation and maintenance. Emphasis will be on fiber optic data links for Local Area Network (LAN) applications. The basic background will cover the technology for fiber optic communications: fiber, cables, splices and connectors, emitters and detectors, transmitters and receivers, data links, LANs, and equipment for installation and maintenance. *F, S*

ETRO 187 - Computer Hardware and OS

Credits: 4

Class hours: 8 lecture/lab

Recommended: ETRO 18 and ICS 100 or ICS 101.

Description: This course covers the fundamentals of computer hardware, software, and advanced concepts such as security, networking, and responsibilities of an Information Technology (IT) professional. Students who complete this course will be able to describe the internal components of a computer, assemble a computer system, install and configure operating systems, and troubleshoot using system tools and diagnostic software. Students will also be able to connect to the Internet and share resources in a networked environment. This course includes an introduction to mobile devices such as tablets and smartphones and client side virtualization. Hands-on labs are an essential element of the course.

ETRO 193V - Cooperative Education

Credits: 1-3

Class hours: 75 hours of supervised work per credit

Prereq: Approval of instructor. Qualified for ENG 100. "C" or higher in one or more ETRO courses or MATH 135.

Description: This course provides practical work experiences in an electronic field so that students will be able to apply classroom knowledge to develop job competency. *F, S, Su*

ETRO 199V - Projects in Electronics

Credits: 1-4

Class hours: 3 hours (1 credit), 5 hours (2 credits), 7 hours (3 credits), 9 hours (4 credits)

Prereq: Approval of instructor.

Recommended: ICS 100 or ETRO 18.

Comments: May be repeated for any number of times for credit.

Description: Students in this independent studies course are expected to write a project proposal which states the objectives or scope of the project, materials cost, expected outcomes, and implementation plan. A schedule of lab use time and instructor consultation time should also be included. The project must be documented and a final report is expected. *F, S, Su*

ETRO 240B - Cisco Networking 3

Credits: 3

Class hours: 6 lecture/lab

Prereq: "C" or higher in ETRO 140B and ETRO 140C.

Recommended: Basic computer and internet usage skills.

Description: This course describes the architecture, components, and operations of routers and switches in larger and more complex networks. Students learn how to configure routers and switches for advanced functionality. By the end of this course, students will be able to configure and troubleshoot routers and switches and resolve common issues with Open Shortest Path First (OSPF), Enhanced Interior Gateway Routing Protocol (EIGRP), and Spanning-Tree Protocol (STP) in both IPv4 and IPv6 networks. Students will also develop the knowledge and skills needed to implement a Wireless Local Area Network (WLAN) in a small-to-medium network. *S (every 2 years)*

ETRO 240C - Cisco Networking 4

Credits: 3

Class hours: 6 lecture/lab

Prereq: "C" or higher in ETRO 240B, or approval of instructor.

Recommended: Basic computer and internet usage skills.

Description: This course discusses the WAN technologies and network services required by converged applications in a complex network. The course enables students to understand the selection criteria of network devices and WAN technologies to meet network requirements. Students learn how to configure and troubleshoot network devices and resolve common issues with data link protocols. Students will also develop the knowledge and skills needed to implement virtual private network (VPN) operations in a complex network. *S*

ELECTRONICS **(ETRO) • continued**

ETRO 244 - Cisco CCNA Security

Credits: 4

Class hours: 8 lecture/lab

Prereq: "C" or higher in ETRO 140C, or approval of instructor.

Recommended: ETRO 240B and ETRO 240C.

Description: CCNA Security is a hands-on career-oriented course preparing students with the associate-level knowledge and skills required to secure Cisco networks. Emphasis is placed on the development of a security infrastructure; identification of threats and vulnerabilities to networks; mitigation of security threats; and core security technologies. Students will experience hands-on installation, troubleshooting and monitoring of network devices to maintain integrity, confidentiality, and availability of data and devices.

ETRO 245 - Advanced Routing

Credits: 3

Class hours: 6 lecture/lab

Prereq: "C" or higher in ETRO 140B, ETRO 140C, ETRO 240B, and ETRO 240C or valid CCNA certification, or approval of instructor.

Comments: May be repeated for a maximum of 1 time for credit.

Description: The purpose of this course is to develop the knowledge and skills needed to manage Internet Protocol (IP) traffic and access; understand scalable internetworks; configure advanced routing protocols including Border Gateway Protocol [BGP], Enhanced Interior Gateway Routing Protocol [EIGRP], and Open Shortest Path First [OSPF]; configuration of Internet Protocol version 6 (IPv6); and configuration of secure routing solutions to support branch offices and mobile workers. Comprehensive labs emphasize hands-on learning and practice to reinforce configuration skills. *F (every 2 years)*

ETRO 247 - Multilayer Switching

Credits: 3

Class hours: 6 lecture/lab

Prereq: "C" or higher in ETRO 140B, ETRO 140C, ETRO 240B, and ETRO 240C or valid CCNA certification, or approval of instructor.

Comments: May be repeated for a maximum of 1 time for credit.

Description: This course focuses on the development of knowledge and skills in monitoring and maintaining complex enterprise routed and switched Internet Protocol (IP) networks. Skills learned include the planning and execution of regular network maintenance, as well as support and troubleshooting using technology-based processes and best practices, in a systematic approach. Extensive labs emphasize hands-on learning and practice to reinforce configuration and troubleshooting skills. *S (every 2 years)*

ETRO 248 - Network Troubleshooting

Credits: 3

Class hours: 6 lecture/lab

Prereq: "C" or higher in ETRO 245, ETRO 246, and ETRO 247.

Comments: May be repeated for a maximum of 1 time for credit.

Description: This course focuses on the development of knowledge and skills in monitoring and maintaining complex enterprise routed and switched Internet Protocol (IP) networks. Skills learned include the planning and execution of regular network maintenance, as well as support and troubleshooting using technology-based processes and best practices, in a systematic approach. Extensive labs emphasize hands-on learning and practice to reinforce configuration and troubleshooting skills. *S (every 2 years)*

ETRO 257 - RF Communications

Credits: 4

Class hours: 8 lecture/lab

Prereq: "C" or higher in ETRO 122 and ETRO 122L.

Description: This course studies the general principles and characteristics of a variety of Radio Frequency (RF) Communications Systems. The coverage includes the analysis of digital and analog communications systems, subsystems, modulation techniques, and circuits. RF communication theory will be reinforced in lab with practical hands-on experience. *F (every 2 years)*

ETRO 275 - Fundamentals of Linux

Credits: 3

Class hours: 6 lecture/lab

Prereq: "C" or higher in ICS 101, or approval of instructor.

Description: This course introduces the student to fundamentals of the Linux-based system that provides essential services for a local area network. Upon completion of this course, the student will have a basic understanding of the Linux operating system and have hands-on experience installing, managing, and troubleshooting the Linux operating system. *S (every 2 years)*

ETRO 280 - Microprocessor Architecture, Programming, and Interfacing

Credits: 3

Class hours: 3 lecture

Prereq: Acceptance into Electronics Technology program. Qualified for ENG 100. Qualified for MATH 103.

Recommended: ETRO 143/143L.

Comments: Credit by exam is not an available option.

Description: Microprocessor trainers will be used to introduce microprocessor architecture, interfacing, and machine language programming. Memory, interfaces, I/O devices, and interrupt processed I/O will also be covered. *F (every 2 years)*

ELECTRONICS **(ETRO) • continued**

ETRO 287 - Computer Systems and Networking

Credits: 3

Class hours: 3 lecture

Prereq: "C" or higher in ETRO 280, or approval of instructor.

Coreq: ETRO 287L

Comments: Credit by exam is not an available option.

Description: The Computer Systems course is the study of computer hardware, peripheral devices, and operating systems. Students gain an understanding of how hardware and peripheral devices are connected and function in the operation of a computer. Students also learn how the operating system software works in conjunction with the hardware to service the software applications. This basic knowledge will enable students to install, maintain, troubleshoot, and repair computer systems and peripherals. It will also enable them to upgrade, maintain, and troubleshoot operating systems. Hands-on experiences are provided in the co-requisite ETRO 287L. *S (every 2 years)*

ETRO 287L - Computer Systems and Networking Laboratory

Credits: 1

Class hours: 3 lab

Prereq: "C" or higher in ETRO 280, or approval of instructor.

Coreq: ETRO 287

Comments: Credit by exam is not an available option.

Description: Computer Systems and Networking Laboratory is a co-requisite course to ETRO 287. Students gain hands-on experience working with computer hardware, peripheral devices, operating systems, and networks by working on a series of laboratory assignments. Students will build, upgrade, maintain, and troubleshoot computer and network hardware. Operating system installation, optimization, and troubleshooting are also included. Students also research and develop a project related to computer technology and present this project as a capstone experience. This experience reinforces the content of the computer systems lecture course and provides the necessary qualification to work as entry-level computer technicians. *S (every 2 years)*

ETRO 299V - Special Studies

See explanation under the heading of Special Studies.

ENERGY **(ENRG)**

ENRG 101 - Introduction to Sustainable Energy Technology (DP)

Credits: 3

Class hours: 3 lecture

Prereq: Qualified for ENG 100X.

Qualified for MATH 82X or concurrent enrollment in MATH 75X or higher.

Recommended: ICS 100, and qualified for ENG 100.

Description: This course introduces alternative methods for meeting long term energy needs, identifies and explores local resources including demand-side management of conventional gas and electric power and sustainable energy resources such as solar, wind, biomass, small hydroelectricity, geothermal, ocean thermal energy conversion, and alternative transportation fuel options.

ENGLISH (ENG)

ENG 18 - Reading Essentials

Credits: 3

Class hours: 3 lecture

Prereq: Acceptable reading placement test score (COMPASS 37-55).

Description: This course provides practice in building the essential skills which serve as the foundation for effective reading and study. Students will build vocabulary skills; identify main points, supporting details, and transitional elements; follow basic patterns of organization; recognize assumptions; differentiate between facts and opinions; and draw inferences. *F, S*

ENG 19 - Writing Essentials

Credits: 3

Class hours: 3 lecture

Prereq: Acceptable writing placement test score.

Recommended coreq: ENG 18

Description: Writing instruction in this course concentrates on sentence structure and paragraph development, with particular emphasis on topic sentences, organization, support, and correctness. Students will write an assortment of informal compositions of varying lengths. Through structured reading and writing, students will improve their skills in vocabulary, usage, punctuation, grammar, spelling, and structure. Students will also be introduced to a variety of study skills and self-management models as a means of increasing their academic successes. *F, S*

ENG 21 - Introduction to College Reading

Credits: 3

Class hours: 3 lecture

Prereq: "C" or higher in ENG 18 or acceptable reading placement test score.

Description: This course teaches the reading and study skills necessary to understand college-level readings, particularly academic texts. The primary emphasis is on improving literal, interpretive, and critical reading comprehension. Vocabulary building exercises are also included. *F, S*

ENG 22 - Introduction to Composition

Credits: 3

Class hours: 3 lecture

Prereq: "C" or higher in ENG 19 or acceptable writing placement test score.

Description: This course includes instruction in the writing process, including development and organization of ideas, revising, and editing, and also serves as an introduction to research strategies and writing from sources. Students will write a variety of compositions to communicate ideas for a variety of purposes and audiences. *F, S, Su*

ENG 99V - Special Studies

See explanation under the heading of Special Studies.

ENG 100 - Composition I (FW)

Credits: 3

Class hours: 3 lecture

Prereq: "C" or higher in ENG 22, or "C" or higher in ENG 23 (Note: For the Fall 2016 only, ENG 97) and concurrent enrollment in ENG 100X, or acceptable English placement*, or instructor approval.

*Smarter Balanced score of 4; or Smarter Balanced score of 3 with a "B" or higher in 12th Grade ELA course; or Smarter Balanced score of 2 with a "B" or higher in 12th Grade ELA course jointly approved by HIDOE and UH; or Cumulative HS GPA 2.6 or higher; or a grade of "B" or higher in 12th Grade ELA course or AP Language & Composition class; or an ACT score of 18 or higher; or an SAT score of 510 or higher in Writing; or a score of 15 or higher on the HiSet College Ready, Language Arts - Writing; or a score of 170 on the GED - Reasoning Through Language Arts; or via writing sample.

Description: This course introduces students to the essential rhetorical, conceptual, and stylistic demands of writing in Standard American English at the college level. Instruction in composing processes, research strategies, and writing from sources is a focus of the course. The course also provides students with experiences in the library and on the internet to enhance their skills in accessing and using various types of primary and secondary materials. Students will engage in research

activities, evaluate sources, and apply the principles of college writing to produce substantial college-level compositions, building foundation skills for writing in courses across the college curriculum. *F, S, Su*

ENG 100X - Study of English Composition

Credits: 1

Class hours: 2 lecture/lab

Prereq: "C" or higher in ENG 19 or ENG 23 (Note: For the Fall 2016 only, ENG 97), or acceptable English placement*, or instructor approval.

*Smarter Balanced score of 3 with a "C" or higher in 12th Grade ELA course, jointly approved by HIDOE and UH; or cumulative high school GPA of 2.0 - 2.5; or a grade of "C" in 12th Grade ELA course or AP Language and Composition class; or an ACT score of 11-17; or an SAT score of 310-509 in Writing; or via writing sample

Coreq: ENG 100

Comments: May be repeated for a maximum of 3 credits, however, this course does not fulfill requirements for any degree or certificate.

Description: This co-requisite course increases students' engagement with college-level composition, providing additional instruction in the writing process, the mechanics of written Standard American English, research strategies, and the analysis and documentation of sources.

ENG 102 - College Reading Skills

Credits: 3

Class hours: 3 lecture

Prereq: "C" or higher in ENG 21 or acceptable reading placement test score.

Description: This course provides an opportunity to improve in college reading skills. Comprehension and speed, vocabulary building, and critical reading skills are emphasized. *F, S*

ENG 104 - Introduction to Creative Writing (DA)

Credits: 3

Class hours: 3 lecture

Recommended: ENG 100.

Description: This course is an introduction to the art of creative expression. Types of writing may include poetry, short stories, imaginative essays, and plays. The class offers opportunity for self-expression. *S*

ENGLISH **(ENG) • continued**

ENG 106 - Technical Communication

Credits: 4

Class hours: 4 lecture

Prereq: "C" or higher in ENG 23 (Note: For the Fall 2016 only, ENG 97), or acceptable English placement*, or instructor approval. *Smarter Balanced score of 3 with a C or higher in 12th Grade ELA course, jointly approved by HIDOE and UH; or cumulative high school GPA of 2.0 - 2.5; or a grade of C in 12th Grade ELA course or AP Language and Composition class; or an ACT score of 11-17; or an SAT score of 310-509 in Writing; or via writing sample.

Comments: ENG 106 does not fulfill the English requirement for AA transfer degrees.

Description: This class offers instruction and practice in the specialized reading and writing skills necessary in professional trade and technical settings. The course will emphasize practice in critical thinking, essential information literacy, active reading strategies, and writing clearly, accurately, and correctly. Particular attention will be given to writing reports, reading technical articles, and preparing and delivering presentations within the trade and technical professional environment. F

ENG 117 - Introduction to Screenwriting

Credits: 3

Class hours: 3 lecture

Prereq: "C" or higher in ENG 100 or ENG 104.

Comments: Cross-listed with ART 117

Description: This is an introductory course in which students will learn basic principles of screenwriting. This includes thorough instruction in story development and structure, appropriate terminology, and the experience of the writing and re-writing process. Activities include script writing, viewing and analyzing short films, in-class writing assignments, reading essays, and reading and critiquing short screenplays. F

ENG 199V - Special Studies

See explanation under the heading of Special Studies.

ENG 215 - Composition II

Credits: 3

Class hours: 3 lecture

Prereq: "C" or higher in ENG 100.

Description: This course further develops the writing and research skills covered in Composition I. Students will be given more in-depth instruction in rhetoric, logic, argument, research techniques, and the stylistic demands of writing within a discipline. Particular emphasis will be placed on writing well-researched and well-documented papers. F, S

ENG 250 - American Literature (DL)

Credits: 3

Class hours: 3 lecture

Prereq: "C" or higher in ENG 100.

Description: Students will read works by representative American writers, including women and ethnic authors, from the colonial period to the present. F, S, Su

ENG 251 - British Literature to 1800 (DL)

Credits: 3

Class hours: 3 lecture

Prereq: "C" or higher in ENG 100.

Description: This course introduces students to representative literature from the Old English, medieval, renaissance, and neo-classical periods. Writers may include Chaucer, Milton, and Shakespeare. Students have the opportunity to practice reading to understand and appreciate literature. F

ENG 252 - British Literature After 1800 (DL)

Credits: 3

Class hours: 3 lecture

Prereq: "C" or higher in ENG 100.

Description: This course provides an opportunity to read works by major British authors from the Romantic, Victorian, and Modern periods. Students have the opportunity to practice reading to understand and appreciate literature. S

ENG 253 - World Literature to 1600 (DL)

Credits: 3

Class hours: 3 lecture

Prereq: "C" or higher in ENG 100.

Description: Students read selected major works of world literature from classical times (Generally beginning

with The Epic of Gilgamesh from around 2000 B.C.) through the 16th century, or the time of Shakespeare. Students will look at works from all the major cultures of the world. They will discuss these works in relation to their context, ideas, intended meaning, and historical significance. Literary movements and methods of interpretation also will be discussed.

ENG 254 - World Literature After 1600 (DL)

Credits: 3

Class hours: 3 lecture

Prereq: "C" or higher in ENG 100.

Description: Students read selected major works of world literature from 1600 (the time of Shakespeare) to the present. Writers from Europe, North America, China, Japan, India, the Middle East, South America, Africa, and other regions will be discussed. Students will consider these works within their historical contexts and discuss their context, ideas, intended meaning, and historical significance. Literary movements and methods of interpretation also will be discussed.

ENG 255 - Short Story and Novel (DL)

Credits: 3

Class hours: 3 lecture

Prereq: "C" or higher in ENG 100.

Description: This course offers opportunity for analysis and appreciation of two genres of fiction: the short story and the novel. F

ENG 256 - Drama and Poetry (DL)

Credits: 3

Class hours: 3 lecture

Prereq: "C" or higher in ENG 100.

Description: This course offers opportunity for analysis and appreciation of poetry and drama. S

ENGLISH *(ENG) • continued*

ENG 257 - Literature by Women (DL)

Credits: 3

Class hours: 3 lecture

Prerequisite: "C" or higher in ENG 100.

Description: This course focuses on women authors and their works in a variety of literary genres. Students will read literature from the past and present by women of varied social and ethnic backgrounds to discover the common personal and political concerns which have motivated women to write throughout history. Emphasis will be placed upon developing critical thinking skills for understanding and appreciating individual texts as well as upon relating texts to each other. S

ENG 257A - Literature and the Law

Credits: 3

Class hours: 3 lecture

Prereq: "C" or higher in ENG 100.

Description: This course focuses on the study of literary texts that deal with significant aspects of the criminality and the law.

ENG 257K - Literature and Medicine (DL)

Credits: 3

Class hours: 3 lecture

Prereq: "C" or higher in ENG 100.

Description: This course focuses on literature related to health and medicine. Students will read, analyze, and appreciate poetry, drama, and fiction related to disease, medical ethics, death and dying, and other issues. S

ENG 257N - Introduction to Literature and Film (DL)

Credits: 3

Class hours: 3 lecture

Prereq: "C" or higher in ENG 100.

Description: This course focuses on the study of short stories, novels, and plays adapted to film. The course will include film screenings and readings of literary texts and film criticism. F

ENG 257T - Introduction to Children's Literature (DL)

Credits: 3

Class hours: 3 lecture

Prereq: "C" or higher in ENG 100.

Description: This course is an introduction to Children's Literature and will offer a general survey of the history and development of children's literature. Students will critically evaluate various genres of literature written for children and adolescents, including folk-tales, picture books, chapbooks, classical myths & legends, and the novel. Students will explore many themes associated with preteen and adolescent literature.

ENG 261 - Literature of the Pacific (DL)

Credits: 3

Class hours: 3 lecture

Recommended: "C" or higher in ENG 100.

Description: This class is an introduction to reading and interpreting literature of and about the cultures of the Pacific, including those of Melanesia, Micronesia, and Polynesia. Students will read, analyze, and appreciate works in a variety of literary genres. The class also will consider these works within their cultural, historical, political, and social contexts. Emphasis will be placed upon developing critical thinking skills through class discussion and close readings to improve students' understanding and appreciation of individual texts as well as to illustrate and explore the significance of common and conflicting themes. S

ENG 299V - Special Studies

See explanation under the heading of Special Studies.

ENGLISH LANGUAGE INSTITUTE (ELI)

ELI 1 - Understanding and Speaking American English

Credits: 3

Class hours: 3 lecture

Prereq: Acceptable TOEFL score.

Comments: May be repeated any number of times for credit.

Description: This first semester course (of the sequence ELI 1 & 3) offers spoken American English for the non-native speaker of English. Special emphasis is placed on listening comprehension, fluency practice, oral communication activities, language learning strategies, and cultural awareness.

ELI 2 - Reading and Writing American English

Credits: 3

Class hours: 3 lecture

Prereq: Acceptable TOEFL score.

Comments: May be repeated any number of times for credit.

Description: This first semester course (of the sequence ELI 2 & 4) for non-native speakers of English focuses on reading comprehension skills, writing strategies and skills, vocabulary development, interpersonal communication skills, and cross-cultural understanding.

ELI 3 - Understanding and Speaking American English

Credits: 3

Class hours: 3 lecture

Prereq: Acceptable TOEFL score.

Comments: May be repeated any number of times for credit.

Description: This second semester course (of the sequence ELI 1 & 3) offers further practice in spoken American English for the non-native speaker of English. Special emphasis is placed on listening comprehension, fluency practice, and other oral communication activities. *F, S*

ELI 4 - Reading and Writing American English

Credits: 3

Class hours: 3 lecture

Prereq: Acceptable TOEFL score.

Comments: May be repeated any number of times for credit.

Description: This second semester course (of the sequence ELI 2 & 4) for non-native speakers of English provides further practice in reading comprehension skills, writing strategies and skills, vocabulary development, interpersonal communication skills, and cross-cultural understanding. *F, S*

ENTREPRENEURSHIP (ENT)

ENT 125 - Starting a Business

Credits: 3

Class hours: 3 lecture

Description: This course surveys the business environment, establishing a firm, decision-making processes, marketing assessments, financing, operations considerations, and government regulations. It also covers development of a business plan. It is designed for those who wish to start or are currently operating their own business. *F*

ENT 130 - Marketing for the Small Business

Credits: 3

Class hours: 3 lecture

Prereq: Qualified for ENG 100.

Description: This course covers key concepts and issues underlying the modern practice of marketing for the small business. The course provides a clear understanding of marketing's role in the management of a small business including marketing terminology, consumer-oriented approach to marketing, channels of distribution, marketing research, concepts and practices of retailing, wholesaling, and physical distribution, marketing communication, personal selling, and marketing organization. *F*

ENT 150 - Basic Accounting and Finance for Entrepreneurs

Credits: 3

Class hours: 3 lecture

Description: This course introduces accounting concepts and principles, procedures, and systems for the entrepreneur. Application skills include recording, summarizing, reporting, analyzing, and using accounting information for the small business. The development of a financial plan for a small business will incorporate the basic concepts pertaining to financial statements and financial planning. *F*

FACILITIES ENGINEERING TECHNOLOGY (FENG)

FENG 20 - Facility Safety and Accident Prevention

Credits: 1

Class hours: 1 lecture

Description: This is an introductory course on facility maintenance safety, including the effect it has on productivity and employee morale. The course includes application of a safety program into basic accident prevention. Students will learn and evaluate various federal (Occupational Safety and Health Administration OSHA), state, and local laws governing safety. Topics include hazardous chemicals, fall protection, electrical safety, and drugs in the workplace. *F*

FENG 21 - Introduction to Building Maintenance

Credits: 3

Class hours: 1 lecture and 4 lecture/lab

Prereq: "C" or higher in CARP 20B.

Description: This course in general building and facilities maintenance covers carpentry skills in blueprint reading, measuring, framing, and exterior and roof finishes. This course also covers masonry skills in blueprint reading, brick size and texture, types of walls, foundations, anchors, concrete mixes, forms, stone, and plaster. Other topics include troubleshooting, preventive maintenance, and safety. *F*

FENG 22 - Interior Finishing

Credits: 1

Class hours: 2 lecture/lab

Prereq: "C" or higher in CARP 20B.

Description: This course provides an overview of interior finishes including general painting and wall coverings installation, as well as installation and finishing of drywall and suspended ceilings. Included are installation techniques and the selection of materials for various interior trim, including doors, windows, and baseboard. *S*

FENG 23 - Plumbing Basics and Repair

Credits: 2

Class hours: 4 lecture/lab

Prereq: "C" or higher in CARP 20B.

Description: This course provides an overview of the plumbing systems and the materials, tools, and techniques used in the repair and maintenance of the fixtures and appliances found in a building. Included are safety precautions, tool selection, and an introduction to the codes that apply to a plumbing system. *F, S*

FENG 30 - Basic Fundamentals of Air Conditioning and Refrigeration

Credits: 3

Class hours: 2 lecture and 3 lab

Prereq: Qualified for ENG 106. Qualified for MATH 82X or concurrent enrollment in MATH 75X or higher. "C" or higher or concurrent enrollment in ETRO 18.

Comments: Credit by exam is not an available option.

Description: This class offers the basic principles and fundamentals of air conditioning and refrigeration. The course is designed to expose students to the methods of maintaining, diagnosing, and minor repairing of domestic and commercial air conditioning/refrigeration systems. *F*

FENG 40 - Commercial Refrigeration and Air Conditioning Diagnostics

Credits: 3

Class hours: 2 lecture and 2 lecture/lab

Prereq: "C" or higher in FENG 30 and ELEC 41.

Description: This course builds on the skills acquired in the FENG 30 Basic Air Conditioning and Refrigeration course. This develops advanced skills for technicians, air conditioning and refrigeration helpers, and an introduction to mechanical engineering. This course covers the performance evaluation on working systems under various conditions along with developing refrigerant diagnostic skills. EPA Recovery Certification is required. *S*

FENG 56 - Solar Thermal Systems I

Credits: 3

Class hours: 2 lecture and 2 lecture/lab

Prereq: "C" or higher in FENG 23.

Description: This course focuses on the

installation, components, and theory of residential domestic solar hot water systems. Students will engage in hands-on activities, as well as individual and team assignments. Students must have the ability to climb ladders, work at a height of ten feet off of the ground, operate soldering torches, work in a hot water environment, work productively both individually and in teams, and be able to lift 50 pounds in weight.

FENG 80 - Introduction to Zero Waste Strategies for Facility Operations

Credits: 3

Class hours: 6 lecture/lab

Description: This is an introductory course exploring the theories, concepts, and applications of emerging technologies and strategies currently demonstrated in the field of solid waste management for Facility Engineering and Maintenance program. The course will introduce students to project-based activities utilizing Zero Waste strategies and practices for solid waste management. Material and resource recovery will be examined with an emphasis on contemporary and sustainable industry practices.

FENG 99V - Special Studies

See explanation under the heading of Special Studies.

FRENCH (FR)

FR 101 - Elementary French I

Credits: 4

Class hours: 4 lecture

Comments: The laboratory is part of the class.

Description: This course is an introduction to the French language emphasizing conversation, listening, grammar, reading, and writing. *F*

FR 102 - Elementary French II

Credits: 4

Class hours: 4 lecture

Prereq: "C" or higher in FR 101.

Comments: The laboratory is part of the class.

Description: This course is a continuation of FR 101: conversation, listening, grammar, reading, and writing. *S*

GEOGRAPHIC INFORMATION SYSTEM (GIS)

GIS 189 - GIS, Mapping, and Society (DS)

Credits: 3

Class hours: 3 lecture

Prereq: Qualified for ENG 100.

Description: Geographic Information Systems (GIS) is a computerized system used to design, capture, store, manipulate, analyze, manage, and present geographically referenced information or data. It combines cartography, statistical analysis, and databases to manipulate spatial areas for a given application. This introductory course will cover the use and application of GIS combining an overview of general principles of GIS and practical experience in the analytical use of spatial information. Students will gain an overall knowledge of GIS, analyze the social context of mapping and knowledge production, examine the diverse range of GIS applications, and complete a final project with a practical component involving the use of an analytical software package: ArcGIS 10 by ESRI (Environmental System Research Institute).

GIS 200 - Interpreting and Creating GIS Maps

Credits: 3

Class hours: 3 lecture

Prereq: "C" or higher or concurrent enrollment in GIS 189.

Description: This course introduces advanced geospatial analysis techniques, including Global Positioning Systems (GPS), GIS database and overlay creation, data classification, location analysis, distribution and density, geovisualization techniques, and map interpretation through the use and application of GIS. This course will combine an overview of general principles of GIS and practical experience in the analytical use of spatial information. Students will gain greater in-depth knowledge of geospatial analysis and examine the social context of mapping and knowledge production, examine the diverse range of GIS applications, and complete a final project with a practical component

involving the use of a geospatial analysis software package. Special emphasis and concentration will focus on sustainability, considering the current and future use and protection of resources in light of land management.

GIS 205 - GIS Database Design and Programming

Credits: 3

Class hours: 3 lecture

Prereq: "C" or higher in GIS 189 and GIS 200.

Coreq: GIS 205L

Description: This course will cover advanced compilation, database design, and production of maps, including the use of GPS, GIS, data export-to-CAD, research, presentations, and illustration using ArcGIS mapping software. Special emphasis and concentration will focus on sustainability, considering the current and future use and protection of resources in light of land management. Class includes a required Lab.

GIS 205L - GIS Database Design and Programming Laboratory

Credits: 1

Class hours: 3 lab

Prereq: "C" or higher in GIS 189 and GIS 200.

Coreq: GIS 205

Description: This course will cover the technical exercises of advanced compilation, design, and production of maps, including the use of GPS, GIS, research, presentations, and illustration using mapping software. Special emphasis and concentration will focus on sustainability, considering the current and future use and protection of resources in light of land management.

GIS 213 - Advanced Geospatial Techniques

Credits: 3

Class hours: 3 lecture

Prereq: "C" or higher in GIS 205 and GIS 205L.

Description: This course covers the applications of advanced GIS technologies to various problems or issues in the social, natural, and environmental sciences. Remote sensing techniques, radar, and satellite imagery map design will be introduced along with an overview of current advances in geospatial technology, including 3D mapping, online, and cloud mapping.

GIS 214 - Practicum in GIS

Credits: 3

Class hours: 3 lecture

Prereq: "C" or higher in GIS 205 and GIS 205L.

Comments: May be repeated for a maximum of 6 credits.

Description: This course is a practicum that will assist students entering the GIS job market through internship opportunities in applied geography under professional and faculty supervision. Field placement is integrated with academic study.

GEOGRAPHY **(GEOG)**

GEOG 101 - Man's Natural Environment (DP)

Credits: 3

Class hours: 3 lecture

Description: A survey of our natural environment; distribution and interrelationships of climate, vegetation, soils, and landforms. Laboratory problems in map and air photo interpretation and environmental analysis.

GEOG 101L - Natural Environment Laboratory (DY)

Credits: 1

Class hours: 3 lab

Prereq: Qualified for ENG 100.

Coreq: GEOG 101

Description: This course is a science laboratory for Physical Geography that explores analysis of experimental methodology and data associated with interdisciplinary sciences studied in geosystems such as but not limited to, climatology, meteorology, geomorphology, edaphology, and cartography, etc.

GEOLOGY **(GG)**

GG 101 - Introduction to Geology (DP)

Credits: 3

Class hours: 3 lecture

Prereq: Qualified for ENG 100. Qualified for MATH 75X.

Coreq: GG 101L

Description: This course is a study of the principles of physical geology, the composition and structure of the earth, and the processes shaping the earth's surface. We'll study geology as it affects our lives and shapes our landscape including volcanoes, earthquakes, tsunamis, and other processes such as weathering and mountain building that evolve or act over extremely long time periods. The course also explores the very nature of science and scientific inquiry through the unifying theory of plate tectonics, the most recent and perhaps most dramatic example of new evidence and understanding revolutionizing a scientific discipline.

GG 101L - Introduction to Geology Lab (DY)

Credits: 1

Class hours: 3 lab

Prereq: Qualified for ENG 100. Qualified for MATH 75X.

Coreq: GG 101

Description: GG 101L explores basic procedures of geologic investigations into the structure and properties of Earth and its geologic processes. Two field trips may be required.

HAWAIIAN (HAW)

HAW 101 - Elementary Hawaiian I

Credits: 4

Class hours: 4 lecture

Comments: The laboratory is part of the class.

Description: This course is an introduction to the Hawaiian language emphasizing conversation, listening, grammar, reading, and writing. F

HAW 102 - Elementary Hawaiian II

Credits: 4

Class hours: 4 lecture

Prereq: "C" or higher in HAW 101.

Comments: The laboratory is part of the class.

Description: This is the second semester of an elementary course in Hawaiian. Emphasis is placed on listening, comprehension, speaking, reading, and writing. S

HAW 201 - Intermediate Hawaiian I

Credits: 4

Class hours: 4 lecture

Prereq: "C" or higher in HAW 102.

Comments: The laboratory is part of the class.

Description: This first half of an intermediate course in Hawaiian further develops skills in listening, speaking, reading, and writing the Hawaiian language. F

HAW 202 - Intermediate Hawaiian II

Credits: 4

Class hours: 4 lecture

Prereq: "C" or higher in HAW 201.

Comments: The laboratory is part of the class.

Description: This second half of an intermediate course in Hawaiian is the continued development of listening, speaking, reading, and writing the Hawaiian language. S

HAW 221 - Introduction to Hawaiian Conversation

Credits: 3

Class hours: 3 lecture

Prereq: "C" or higher in HAW 202.

Description: This course provides practice for control of spoken Hawaiian and further develops vocabulary for more accurate, mature expressions. S

HAW 222 - Introduction to Hawaiian Composition

Credits: 3

Class hours: 3 lecture

Prereq: "C" or higher in HAW 202.

Description: This class provides systematic practice for control of written Hawaiian. A variety of situations will be introduced in which the student will use written Hawaiian as the medium of communication, providing for further development of vocabulary and grammatical elements for accurate, mature expression. S

HAW 261 - Hawaiian Literature in English (DL)

Credits: 3

Class hours: 3 lecture

Description: This course is a survey of traditional Hawaiian myths, legends, chants, and sayings. The emphasis will be on the various modes of native Hawaiian literature from pre-contact to the present. Readings will be presented in English translation. F, Su

HAW 262 - Survey of Hawaiian Writings (DL)

Credits: 3

Class hours: 3 lecture

Prereq: "C" or higher in HAW 202.

Description: This course offers a sampling of different styles and modes of native Hawaiian literature, primarily from the 19th and 20th centuries. The readings are presented in the original Hawaiian. F, S

HAWAIIAN STUDIES (HWST)

HWST 20P - Basic Woodworking

Credits: 2

Class hours: 4 lecture/lab

Prereq: "C" or higher in HWST 281.

Coreq: HWST 282

Description: This course will cover basic woodworking skills and techniques in relation to canoes. The main components of the course will cover proper tool usage, shop safety procedures, maintenance and adjustment of both hand and power tools, and understanding various wood joinery utilizing adhesives. Several projects may be required involving fabrication by the students to demonstrate their understanding of measurement, joinery, tool usage, and safety procedures.

HWST 107 - Hawai'i: Center of the Pacific (DH)

Credits: 3

Class hours: 3 lecture

Prereq: Qualified for ENG 22.

Description: This course is an introduction to the unique aspects of Hawai'i and Hawaiian culture in relation to the larger Pacific including origins, language, religion, land, art, history, and current issues. *F, S*

HWST 111 - The Hawaiian `Ohana (DH)

Credits: 3

Class hours: 3 lecture

Description: This course presents Hawaiian values through the traditional family system. Ancestral family practices will be investigated and compared with current Hawaiian lifestyles and values. *F*

HWST 128 - Hula and Chant (DA)

Credits: 3

Class hours: 2 lecture and 3 lab

Comments: The laboratory is part of the class.

Description: An introduction to hula and chant covering the fundamentals of traditional dance and traditions, chant, protocol, and language. *F*

HWST 129 - Hula and Chant Performance

Credits: 2

Class hours: 1 lecture and 2 lecture/lab

Prereq: "C" or higher in HWST 128 or approval of instructor.

Description: This is an intermediate course of hula and chant covering the fundamentals of traditional dance and traditions, chant, protocol, and language. Students will advance their ability in hula performance and expand their knowledge in hula protocol, proper adornments, and the use of hula implements.

HWST 177 - Hawaiian Music in Transition (DA)

Credits: 3

Class hours: 3 lecture

Description: This course studies musical traditions in Hawai'i from pre-contact to the present. It includes indigenous Hawaiian music, its acculturated forms and contemporary trends, and non-Hawaiian music in Hawai'i. Students will consider aspects of musical style, instruments used, composition, teaching and performance practice, the role of music in society, and repertoire. No musical background is necessary. *S*

HWST 199V - Special Studies

See explanation under the heading of Special Studies.

HWST 228 - Hanohano Ha'upu: Literary Journeys Through Hula

Credits: 3

Class hours: 3 lecture

Prereq: "C" or higher in HAW 101 and HWST 129 or approval of instructor.

Description: This course introduces students to significant places and legendary figures of Kaua'i through the study of mo'olelo (stories) and mele (songs). Through this study, students will learn and perform various hula and chant that are found in Kaua'i's literary history.

HWST 229 - Cultural Connections Through Hula

Credits: 2

Class hours: 2 lecture

Prereq: Approval of instructor.

Description: This course is the final course in the hula series. Students enrolled in this course will demonstrate their knowledge in hula and Hawaiian culture and language by traveling outside of Kaua'i and making connections with other cultural practitioners.

HWST 251 - Mahi'ai Kalo (Taro Cultivation)

Credits: 3

Class hours: 3 lecture

Prereq: Qualified for ENG 100. "C" or higher in HWST 107.

Description: For the past 2,000 years taro, or kalo, has been the main staple and most important food of the Hawaiian people. It has also played a very important role in the beliefs and daily lives of Hawaiians. This course will study the cultural link between the Hawaiians and kalo through the study of traditional cultivation, maintenance, and processing methods used by the Hawaiians. This will occur in conjunction with hands-on experience. *F, S*

HWST 270 - Hawaiian Mythology (DL)

Credits: 3

Class hours: 3 lecture

Prereq: "C" or higher in both HWST 107 and HAW 101 or approval of instructor.

Description: HWST 270 is an introduction to Hawaiian mythology and mo'olelo as a basis of understanding (or a reflection) of Hawaiian culture, values, metaphor, and worldviews. This course will investigate and analyze oral and written Hawaiian literary sources and the roles of akua, `aumakua, kupua and kanaka.

HAWAIIAN STUDIES **(HWST) • continued •**

HWST 281 - Ho'okele I: Polynesian Voyaging and Astronomy (DH)

Credits: 3

Class hours: 3 lecture

Prereq: Qualified for ENG 100 or concurrent enrollment in ENG 100X. Qualified for MATH 82X or "C" or higher or concurrent enrollment in MATH 75X.

Description: This course is a survey of the Hawaiian and Polynesian environment in relationship to migration, voyaging, and folklore. This course will provide the student with the basics of wayfinding (or noninstrument) techniques as utilized by the voyages of Hokule'a, Hawai'i Loa, Makali'i, and other Polynesian voyaging canoes. In addition, we will explore and appreciate the cultural impact of long distance voyaging and the settlement of Polynesia upon contemporary society. S

HWST 282 - Ho'okele II: Polynesian Navigation and Seamanship

Credits: 4

Class hours: 3 lecture and 2 lecture/lab

Prereq: "C" or higher in HWST 281.

Coreq: HWST 20P

Recommended: Ability to swim.

Description: This course will introduce students to the skills of Polynesian navigation and seamanship through the exploration and experiences of the voyages of contemporary Polynesian voyaging canoes. In addition, students will have opportunities to learn and practice some of these skills on a double-hulled sailing canoe.

HWST 285 - Hawaiian Medicinal Herbs I: La'au Lapa'au

Credits: 4

Class hours: 3 lecture and 2 lecture/lab

Prereq: "C" or higher in HWST 107.

Description: An introduction to Hawaiian medicinal herbs including the basic philosophy and strictness in adhering to protocol, with discussion, identification, and utilization of various methods and techniques of extraction used by Hawaiians in preparing native and hānai herbs (hānai: exotic herbs adopted into the culture) for curing diseases.

HWST 290 - Rediscovering Polynesian Connections (DH)

Credits: 3

Class hours: 3 lecture/week plus a two-week visitation of the host country

Prereq: Approval of instructor.

Recommended: "C" or higher in HAW 261, HIST 284, HWST 107, HWST 111, Hawaiian Language courses, Spanish or French if appropriate to the country being visited.

Description: Investigating Polynesian connections through life experiences. This is a study abroad course in which the student will experience the interconnectedness of the peoples and cultures of Polynesia through cultural immersion. Studies will begin on the home campus and culminate with a visit to the host country.

HWST 295 - Hawaiian Medicinal Herbs II: La'au Lapa'au

Credits: 3

Class hours: 2 lecture and 2 lecture/lab

Prereq: "C" or higher in HWST 285.

Description: Advanced study and preparation of Hawaiian and hānai herb combinations to address health and wellness.

HWST 299V - Special Studies

See explanation under the heading of Special Studies.

HEALTH (HLTH)

HLTH 140 - Introduction to Human Body Systems and Related Medical Terminology

Credits: 3

Class hours: 3 lecture

Prereq: Qualified for ENG 100.

Description: This course provides students with an introduction to medical terminology related to human body systems. Normal human structure and function of the human body and major body systems will also be explored. E, S

HLTH 145 - Introduction to Healthcare

Credits: 3

Class hours: 3 lecture

Prereq: "C" or higher in HLTH 140.

Description: This course provides an introduction to health care and health professions. It focuses on the concepts of effective communication, emergency preparedness, and protective practices to prevent illness and injury. Professional ethics will also be discussed.

HLTH 155 - Introduction to the Study of Diseases (DB)

Credits: 3

Class hours: 3 lecture

Prereq: "C" or higher in HLTH 140.

Qualified for ENG 100.

Description: This course provides an introduction to the general concepts and characteristics of disease processes. Etiology, signs and symptoms, as well as diagnostic tests and treatments of selected diseases from major body systems will be discussed.

HLTH 175 - Introduction to Healthcare Informatics

Credits: 3

Class hours: 3 lecture

Prereq: "C" or higher in HLTH 140.

Qualified for ENG 100.

Description: This course introduces the concepts and practices of health informatics for students interested in a healthcare career. The structure of information systems, quality, privacy and ethical use of healthcare data, participatory healthcare, and the impact of healthcare informatics on healthcare delivery will be discussed.

HLTH 240 - Medical Law and Professional Ethics

Credits: 2

Class hours: 2 lecture

Prereq: "C" or higher in HLTH 155 and ENG 100.

Description: This course focuses on the legal implications and ethical considerations that impact health care. Students will analyze medical legal issues and relate ethical concepts to the professional practice of an allied health professional. S

HLTH 285 - Human Nutrition

Credits: 3

Class hours: 3 lecture

Prereq: "C" or higher in HLTH 140.

Qualified for ENG 100.

Description: This course provides students with an introduction to Human Nutrition from a scientific and cultural perspective. The basic components of nutrition and a healthy diet are explored. Food sustainability and food politics are introduced. Sustainable diet planning with a cultural perspective is discussed. Basic research methodology is examined.

HEALTH, PHYSICAL EDUCATION, AND RECREATION (HPER)

HPER 100 - Health, Wellness, and Fitness

Credits: 2

Class hours: 1 lecture and 2 lecture/lab

Prereq: Qualified for ENG 21.

Description: In this course, students develop an understanding of the concepts of health, wellness, and physical fitness as these concepts relate to their lifestyles. Students will explore the progression of conditioning exercises and activities that develop and maintain physical fitness, and lifestyle choices that maintain health and wellness. This course will take place in both the classroom and lab setting. *F, S*

HPER 130 - Beginning Tennis

Credits: 1

Class hours: 2 lecture/lab

Comments: May be repeated for a maximum of 2 credits.

Description: Students will develop the fundamental skills of tennis for singles and doubles competition. *F, S*

HPER 131 - Intermediate Tennis

Credits: 1

Class hours: 2 lecture/lab

Prereq: "C" or higher in HPER 130.

Comments: May be repeated for a maximum of 2 credits.

Description: This course is designed to provide students with the opportunity to refine basic tennis skills and focus on more advanced technical skills. There will be an emphasis on court strategy for singles and doubles.

HPER 132 - Advanced Tennis

Credits: 1

Class hours: 2 lecture/lab

Prereq: "B" or higher in HPER 131.

Recommended: United States Tennis Association (USTA) rating of 3.5 or higher.

Comments: May be repeated for a maximum of 2 credits.

Description: This course will focus on students learning additional skills of tennis needed for advanced competition with emphasis on singles and doubles strategies. Emphasis is on development of total fitness and more advanced play for leisure use.

HPER 137 - Basketball

Credits: 1

Class hours: 2 lecture/lab

Comments: May be repeated for a maximum of 2 credits.

Description: This course will focus on the basic knowledge and practice of the fundamental skills of basketball with emphasis on offensive and defensive strategies.

HPER 148 - Hiking

Credits: 2

Class hours: 4 lecture/lab

Recommended: Medical clearance if you've been inactive. Able to walk at least 3 miles at one time.

Comments: May be repeated for a maximum of 2 credits.

Description: This is an introductory hiking course designed to impart skills such as fitness preparation, navigation, and the logistics of planning a hiking trip on Kaua'i. This class will also examine certain aspects of group dynamics such as problem solving, communication, stress management, and leadership. Hawaiian folklore will be explored on some of the hikes. There will be class meetings for lecture and fitness, as well as day hiking trips.

HPER 152 - Weight Training

Credits: 1

Class hours: 2 lecture/lab

Comments: May be repeated any number of times for credit.

Description: This course introduces the student to the proper lifting mechanics and benefits of weight training. Emphasis will be placed on conditioning, myths, and facts related to weight training. *F, S*

HPER 160 - Fitness Boot Camp

Credits: 1

Class hours: 2 lecture/lab

Recommended: Medical clearance.

Comments: May be repeated for a maximum of unlimited credits.

Description: This course will focus on the development and maintenance of the following components of fitness: muscular endurance, strength, cardiovascular fitness, balance, speed, and coordination. General fitness concepts to improve each component of fitness, nutrition, and weight management will be included. The primary emphasis is helping reduce the risk of functional decline and improve overall performance in everyday activities.

HPER 170 - Beginning Yoga

Credits: 2

Class hours: 4 lecture/lab

Prereq: Qualified for ENG 100.

Comments: May be repeated for a maximum of 4 credits.

Description: This course will focus on the practice of hatha yoga. General philosophy, history, and benefits toward wellness will be included. The primary emphasis will be on the performance of postures and breathing exercises, along with emphasis on ethical principles, personal conduct, and meditation in order to improve overall wellness.

HEALTH, PHYSICAL EDUCATION, AND RECREATION (HPER) • continued

HPER 171 - Intermediate Yoga

Credits: 2

Class hours: 4 lecture/lab

Prereq: "C" or higher in HPER 108 (Beginning Yoga) or approval of instructor.

Recommended: 1) Medical Clearance if you have not been regularly active. 2) Consistent and recurring participation in a Yoga practice.

Comments: May be repeated for a maximum of 4 credits.

Description: This course will focus on corrective work and improvement of basic poses, as well as intermediate poses, meditation, breathing, and relaxation techniques in Hatha Yoga with independent, group, and personalized training. Students will study yoga history, philosophy, and understand how to apply principles of yoga into a healthy lifestyle.

HPER 195 - Modern Health: Personal and Community

Credits: 2

Class hours: 2 lecture

Prereq: Qualified for ENG 100.

Description: This course introduces the concepts of personal, physical, and emotional health. Community health and the evaluation of health-related information will also be discussed.

HPER 270 - Personal Trainer

Credits: 2

Class hours: 4 lecture/lab

Prereq: Qualified for ENG 100X. Qualified for MATH 82X.

Recommended: BLS - CPR Certification.

Description: This course focuses on applied kinesiology, exercise physiology, and nutrition. Functional screening and application to training programs will also be discussed. With completion of the course, the students will be eligible to take the ACE Personal Trainer Certification Exam and become effective personal trainers.

HISTORY **(HIST)**

HIST 151 - World History to 1500 (FGA)

Credits: 3

Class hours: 3 lecture

Prereq: Qualified for ENG 100.

Description: A global and historical survey focusing on human societies and cross-cultural interactions to 1500 C.E. History 151 is the first half of a two-semester series of courses that cover human history from our origins through the twentieth century. This course provides a survey of world history from the prehistoric era to 1500 C.E. with an emphasis on the development of complex societies and enduring historical trends. *F, S, Su*

HIST 152 - World History Since 1500 (FGB)

Credits: 3

Class hours: 3 lecture

Prereq: Qualified for ENG 100.

Description: A global and historical survey focusing on human societies and cross-cultural interactions since 1500 C.E. History 152 is the second half of a two-semester series of courses that cover human history from our origins through the twentieth century. This course provides a survey of world history since 1500 C.E. with an emphasis on the growth of and response to global empires, as well as the major revolutions which characterize the modern world. *F, S, Su*

HIST 241 - History of Asia to 1500 (DH)

Credits: 3

Class hours: 3 lecture

Prereq: Qualified for ENG 100.

Description: This is the first in a two-semester series of courses that provide a survey of the history of East, Southeast, and South Asia from the earliest times to the modern era. History 241 will examine the history of Asia from the prehistoric era through 1500 CE. It includes a broad survey of major historical figures, events, and developments in India, China, Korea, and Japan. Students will examine a number of interrelated processes—the origins of civilizations, the formation and disintegration of great empires, the evolution of ruling classes, the growth and spread of religions, as well as nomadic-sedentary relations.

HIST 242 - History of Asia since 1500 (DH)

Credits: 3

Class hours: 3 lecture

Prereq: Qualified for ENG 100.

Description: The second in a two-semester series of courses that provide a survey of the history of East, Southeast, and South Asia from the earliest times to the modern era. History 242 will examine the history of Asia from the year 1500 through the present. It includes a broad survey of major historical figures, events, and developments in India, China, Korea, and Japan. Students will examine a number of interrelated processes: technological change, the impact of Western imperialism, the growth of Asian nationalism, and the transition to a modern world.

HIST 250 - Film and World History Since WWII (DH)

Credits: 3

Class hours: 3 lecture

Comments: Cross-listed with ART 250

Description: This course examines historical events, from WWII until the present, through cinema. Significant events and turning points will be discussed, including the attack on Pearl Harbor, the Holocaust, and the Cold War. Films from around the world will be examined for their context in history, as well as for their inherent cinematic qualities. The course will examine how cinema has influenced world events, as well as how world events have shaped the direction of cinema. *S*

HIST 281 - American History to 1865 (DH)

Credits: 3

Class hours: 3 lecture

Prereq: Qualified for ENG 100.

Description: This course is a survey of American history from the Paleolithic era through the Civil War, focusing on social history—seeking to tell the story of America “from the bottom up.” Students will examine major events, trends and themes in the American past from multiple perspectives and will produce a piece of original research on the early American world. *F*

HIST 282 - American History Since the Civil War (DH)

Credits: 3

Class hours: 3 lecture

Prereq: Qualified for ENG 100.

Description: History 282 is the second half of a two-semester series of courses that cover American history from the initial colonization of the continent through the twentieth century. This course provides an introduction to American history after the Civil War. Students will examine major events, trends, and themes in the American past from multiple perspectives and will produce a piece of original research on modern American history. *S*

HIST 284 - History of the Hawaiian Islands (DH)

Credits: 3

Class hours: 3 lecture

Description: This survey of the history of Hawai'i from the late prehistoric period to the present emphasizes the cross-cultural nature of island society. *S*

HIST 284K - History of Kaua'i (DH)

Credits: 3

Class hours: 3 lecture

Prereq: Qualified for ENG 100.

Description: A history of the island of Kaua'i from the prehistoric period to the present. *F*

HORTICULTURE **(HORT)**

HORT 200 - Introduction to Horticulture (DB & DY)

Credits: 3

Class hours: 2 lecture and 2 lecture/lab

Description: This course is an introduction to horticultural crop science with emphasis on plant structure and function, and environmental factors that affect plant growth. The class will cover the horticultural industry, horticultural crop families, growing systems, soil preparation and fertility, soil and water management, plant breeding and varieties, identifying and controlling pests, regulating plant growth, harvesting, value-added applications, and marketing.

HOSPITALITY AND TOURISM (HOST)

HOST 100 - Career and Customer Service Skills

Credits: 3

Class hours: 3 lecture

Description: This course builds and maintains the critical skills and understanding necessary to be a dynamic and successful member of today's rapidly-growing service economy. Individuals who work with customers will gain insight into customer behavior and attitudes. Students will develop strategies and skills necessary to create positive relationships encountered in various career situations.

HOST 101 - Introduction to Hospitality and Tourism

Credits: 3

Class hours: 3 lecture

Description: This course builds and maintains the critical skills and understanding necessary to be a dynamic and successful member of today's rapidly-growing service economy. Individuals who work with customers will gain insight into customer service behavior and attitudes and develop strategies to create positive customer relationships encountered in various job situations. Students will gain an understanding of Hawai'i's travel industry and the strategies and skills related to career success and customer satisfaction in the hospitality industry. *F, S*

HOST 150 - Housekeeping Operations

Credits: 3

Class hours: 3 lecture

Prereq: "C" or higher in HOST 101.

Description: This course is the study of the practical applications of professional housekeeping operations including the functions of management, interdepartmental relationships, and preventive maintenance practices required to assure quality service. *S*

HOST 152 - Front Office Operations

Credits: 3

Class hours: 3 lecture

Prereq: "C" or higher in HOST 101.

Comments: Credit by exam is not an available option.

Description: This course studies the philosophy, theory, equipment, and current operating procedures of a hotel front office. It concentrates on the human relations skills necessary for effective guest and employee relations and the technical skills necessary to operate a manual, mechanical, or computerized front office operation. *F*

HOST 154 - Food and Beverage Operations

Credits: 3

Class hours: 3 lecture

Description: This course introduces the basic 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. The class provides practical applications to effectively manage resources for food and beverage industry operations. *S*

HOST 199V - Special Studies

See explanation under the heading of Special Studies.

HOST 290 - Hospitality Management

Credits: 3

Class hours: 3 lecture

Prereq: Qualified for ENG 100. "C" or higher in HOST 101.

Description: This course examines the management process in hospitality operations, focusing on the managerial functions of planning, organizing, staffing, directing, and controlling to bring about organizational effectiveness. Scenarios, case studies, and an industry-based project will reinforce management principles. *F, S*

HOST 293V - Cooperative Education

Credits: 1-3

Class hours: 1 credit = 75 hours of work experience, 2 credits = 150 hours of work experience, 3 credits = 225 hours of work experience

Prereq: Hospitality and Tourism major. Department approval. "C" or higher in HOST 101 and HOST 125.

Description: Cooperative Education is a supervised field experience that is related to the student's major or career goals. The experience will enable the student to apply knowledge and skills learned in coursework to the work environment. *F, S*

INFORMATION AND COMPUTER SCIENCES (ICS)

ICS 101 - Digital Tools for the Information World

Credits: 3

Class hours: 3 lecture

Prereq: Qualified for ENG 100 and MATH 103, "C" or higher in ICS 100, or acceptable math placement test score.

Comments: The laboratory is part of the class. Credit by exam is not an available option.

Description: Hands-on computer class with emphasis on producing professional-level documents, spreadsheets, presentations, databases, and webpages for problem solving. Includes concepts, terminology, and a contemporary operating system. *F, S*

ICS 111 - Introduction to Computer Science I

Credits: 4

Class hours: 3 lecture and 3 lab

Prereq: "C" or higher in ICS 101.

Comments: The laboratory is part of the class. Credit by exam is not an available option.

Description: This course is intended for Computer Science majors and all others interested in the first course in programming. This course is an overview of the fundamentals of computer science emphasizing problem solving, algorithm development, implementation, and debugging/testing using an object-oriented programming language. *S*

ICS 120V - Projects in Computer Science and Programming

Credits: 1-2

Class hours: 3-6 lab

Prereq: "C" or higher in ICS 101.

Comments: Credit by exam is not an available option. May be repeated once for credit.

Description: Primarily for students with strong interest in computers and computer programming. Involves materials and techniques beyond that used in the regular computer science courses. Individual work on problem solving by computer.

INTERDISCIPLINARY STUDIES (IS)

IS 50 - Summer Bridge

Credits: 2

Class hours: 2 lecture

Description: IS 50: Summer Bridge is meant to help prepare students for their first semester at KCC. This course includes the study of resources available to students at KCC, college-level study skills, non-cognitive affective success skills, and the use of technology to create, manage, and share files.

IS 99V - Special Studies

See explanation under the heading of Special Studies.

IS 103 - Introduction to College

Credits: 3

Class hours: 3 lecture

Description: Introduction to College is a comprehensive first-year experience course for incoming and returning new students. In IS 103, students will develop, practice, and refine success techniques for college, including methods to enhance self-esteem, motivation, goal setting, time management and career exploration, scheduling, study habits and skills, dealing with the unexpected, understanding college culture and using resources, test-taking skills, written and oral communication, research skills, computer literacy, critical thinking, team building, and networking within the college community. *F, S*

IS 180V - Study Abroad

Credits: 1-15

Class hours: Instructional hours will vary according to courses taken at the host institution.

Prereq: Approval of instructor.

Comments: May be repeated for a maximum of 15 credits.

Description: This course is a place holder course for students who study abroad on an exchange program for a semester or for an entire academic year. Students going on the exchange program will register for this course (1-15 credits) and pay only their home campus' tuition. Upon returning to Kaua'i CC, students

are responsible for submitting the course syllabi and transcripts from the host institution to the admissions office for the courses taken abroad to be articulated with courses offered by UH. After the courses are articulated, students will receive equivalent UH credit for the courses taken abroad while this course will remain on the transcript but will show zero credit.

IS 199V - Special Studies

See explanation under the heading of Special Studies.

JAPANESE **(JPNS)**

JPNS 101 - Elementary Japanese I

Credits: 4

Class hours: 4 lecture

Comments: The laboratory is part of the class.

Description: This course is an introduction to the Japanese language emphasizing conversation, listening, grammar, reading, and writing. F

JPNS 102 - Elementary Japanese II

Credits: 4

Class hours: 4 lecture

Prereq: "C" or higher in JPNS 101 or placement test score demonstrating equivalent knowledge and skills.

Comments: The laboratory is part of the class.

Description: This is the second semester of an elementary course in spoken and written Japanese. As a first-year course, it emphasizes the spoken language, but increasing attention is given to reading and writing. Students are expected to have an active knowledge of both Hiragana and Katakana. S

JPNS 199V - Special Studies

See explanation under the heading of Special Studies.

JPNS 201 - Intermediate Japanese I

Credits: 4

Class hours: 4 lecture

Prereq: "C" or higher in JPNS 102 or placement test score demonstrating equivalent knowledge and skills.

Comments: The laboratory is part of the class.

Description: This is the first half of an intermediate course in spoken and written Japanese. As a second-year course, it emphasizes reading and writing. Students are expected to have an active knowledge of Hiragana, Katakana, and approximately 50 to 80 Kanji. F

JPNS 202 - Intermediate Japanese II

Credits: 4

Class hours: 4 lecture

Prereq: "C" or higher in JPNS 201 or placement test score demonstrating equivalent knowledge and skills.

Comments: The laboratory is part of the class.

Description: This is the second semester of an intermediate course in spoken and written Japanese. S

JPNS 299V - Special Studies

See explanation under the heading of Special Studies.

JOURNALISM **(JOUR)**

JOUR 205 - News Writing

Credits: 3

Class hours: 3 lecture

Prereq: Qualified for ENG 100.

Description: This introduction to the theoretical and practical aspects of news writing includes technical, legal, and procedural considerations. It provides practical experience in news reporting and news writing. *F, S*

JOUR 285V - Newspaper Laboratory

Credits: 1-3

Class hours: 3-9 lab

Prereq: "C" or higher in JOUR 205.

Approval of instructor.

Comments: May be repeated any number of times for credit.

Description: Students in this course produce a campus newspaper. Production steps include interviewing, writing copy, editing, and layout. *F, S*

LINGUISTICS **(LING)**

LING 102 - Introduction to the Study of Language (DH)

Credits: 3

Class hours: 3 lecture

Prereq: Qualified for ENG 100.

Description: This course offers an overview of linguistic study, introducing students to linguistic principles and terminology applicable to all languages. In exploring the nature and function of human languages, the course examines how language is used, how it is acquired, how it changes over time, how it is patterned, how it is represented and processed in the brain, and how it affects culture and history. Major concerns, discoveries, methods, and controversies in this exciting field are discussed. *F, S*

MACHINE SHOP **(MACH)**

MACH 19 - Introduction to Machine Shop

Credits: 3

Class hours: 1 lecture and 4 lab

Comments: Credit by exam is not an available option. May be repeated any number of times for credit.

Description: An introduction to basic machine tools, precision measurements, bench layout techniques, and industrial safety. Theory and practices of drill press, lathe operations, milling, and boring machines are covered with emphasis on automotive engine machine work.

MACH 99V - Special Studies

See explanation under the heading of Special Studies.

MANAGEMENT **(MGT)**

MGT 120 - Principles of Management

Credits: 3

Class hours: 3 lecture

Comments: Credit by exam is not an available option.

Description: This course introduces the functions of management from an organizational viewpoint: planning, organizing, directing, and controlling. Contemporary studies that relate to communication, motivation, leadership styles, and decision making will be included. *F, S*

MGT 122 - Human Relations in Business

Credits: 3

Class hours: 3 lecture

Recommended: SP 151

Comments: Credit by exam is not an available option.

Description: This course gives students an opportunity to understand and utilize human relations concepts as they apply to the business environment. Areas included are morale, personal efficiency, leadership, personality, motivation, and communication. *F, S*

MGT 124 - Human Resource Management

Credits: 3

Class hours: 3 lecture

Description: This course is an introduction to the principles, organizations, and techniques of personnel administration including procurement and placement, improvement of performance, management and labor relations, remuneration and security, and other services provided to the firm by the personnel section. This course is designed to give students an operational knowledge of the activities involved in personnel management relations with regard to their future roles in business.

MARINE SCIENCE (MARE)

MARE 171 - Introduction to Marine Biology I (DB)

Credits: 3

Class hours: 3 lecture

Coreq: CHEM 151 (or CHEM 161) and MARE 171L

Recommended: ENG 100 or equivalent

Comments: Cross-listed with BIOL 171.

Description: MARE 171 Introduction to Marine Biology I is an introductory biology course with a marine emphasis for all life science majors. Cell structure and chemistry; growth, reproduction, genetics, evolution, viruses, bacteria, and simple eukaryotes. F

MARE 171L - Introduction to Marine Biology Laboratory I (DY)

Credits: 1

Class hours: 3 lab

Coreq: CHEM 151 (or CHEM 161) and MARE 171

Comments: Cross-listed with BIOL 171L

Description: The laboratory complements MARE 171 and must be taken concurrently with the lecture. It is intended to provide laboratory experiences that focus on organic molecules, cell structure, cell functions, and genetics. F

MARE 172 - Introduction to Marine Biology II (DB)

Credits: 3

Class hours: 3 lecture

Prereq: "C" or higher in MARE 171 and 171L.

Coreq: MARE 172L

Comments: Cross-listed with BIOL 172

Description: BIOL/MARE 172 is a continuation of BIOL/MARE 171 emphasizing anatomy, physiology, and systematic of plants and animals to include behavior, ecosystems, populations, and communities. S

MARE 172L - Introduction to Marine Biology Laboratory II (DY)

Credits: 1

Class hours: 3 lab

Coreq: MARE 172

Comments: Cross-listed with BIOL 172L

Description: This laboratory complements the MARE/BIOL 172 lecture and must be taken concurrently with the lecture. It is intended to provide laboratory experiences that focus on a systemic study of the anatomy and physiology of plants and animals, and how they interact in populations, ecosystems, and communities. S

MARKETING (MKT)

MKT 130 - Principles of Retailing

Credits: 3

Class hours: 3 lecture

Description: This course provides an introductory view of retailing and its relative position in the marketing chain. The primary emphasis is on the basic functions of a retail store, including finance and control, operations, personnel, merchandising, and sales promotion. F

MATHEMATICS (MATH)

MATH 16 - Math Study Skills

Credits: 1

Class hours: 1 lecture

Coreq: MATH 22

Description: Students in MATH 16 study and apply essential study skills needed to succeed in mathematics and other mathematics-related courses. Techniques are introduced to reduce math anxiety, improve note-taking skills, manage time effectively, employ effective study techniques, and practice sound math test-taking skills. This course is required for students taking MATH 22 who tested below 31 on the COMPASS prealgebra assessment.

MATH 21 - Basic Math and Pre-Algebra

Class hours: 3 lecture and 2 lecture/lab

Credits: 4

Description: This course allows students to investigate real-life situations and to recognize the importance of mathematics in their own lives. Topics of study include basic arithmetic, basic geometry and statistics, the real number system, variables and algebraic expressions, ratios and proportions, and simple linear equations. The primary focus of this course is to motivate and prepare students for algebra and beyond. Study skills are incorporated to improve student success in college. *F, S*

MATH 22 - Pre-Algebra

Credits: 3

Class hours: 3 lecture

Prereq: Acceptable math placement test score.

Recommended: Concurrent enrollment in MATH 99V (1 cr.).

Description: This course prepares students for elementary algebra, technical mathematics, and/or select program requirements. Topics include operations with rational numbers, an introduction to variables, expressions and equations, as well as ratios, proportions, percents and applications. *F, S*

MATH 24 - Elementary Algebra I

Credits: 3

Class hours: 3 lecture

Prereq: "C" or higher in MATH 21 or MATH 22; or acceptable math placement test score.

Comments: Credit by exam is not an available option.

Description: This is the first course in a two-semester sequence of Elementary Algebra courses. Instruction includes units on the real number system, linear equations and inequalities in one variable, linear equations and inequalities in two variables, systems of linear equations in two and three variables, and introduction to functions. *F, S, Su*

MATH 25 - Elementary Algebra II

Credits: 3

Class hours: 3 lecture

Prereq: "C" or higher in MATH 24 or MATH 75; or acceptable math placement test score.

Comments: Credit by exam is not an available option.

Description: This course covers intermediate topics in elementary algebra. Topics include properties of exponents; operations on polynomials; factoring; rational expressions and equations; roots and radicals; and quadratic equations. *F, S, Su*

MATH 75X - Introduction to Mathematical Reasoning

Credits: 4

Class hours: 4 lecture

Description: This course prepares students for MATH 100, MATH 111, and MATH 115. Course topics include ratio and percent, unit conversion, graphs, data interpretation, basic algebra, solving linear equations, and working with formulas with special emphasis on pattern recognition and problem solving. Additional topics may include set theory, inequalities, and quadratics.

MATH 82X - Expanded Algebraic Foundations

Credits: 5

Class hours: 5 lecture

Prereq: Appropriate math placement.

Description: This covers elementary algebra topics. Topics include linear equations and inequalities, graphing, linear systems, properties of exponents, operations on polynomials, factoring, rational and radical expressions and equations, quadratic equations, and applications. Additional topics may include graphing by transformation, introduction to logarithms and functions, and dimensional analysis.

MATH 88 - College Algebra Companion

Credits: 2

Class hours: 2 lecture

Prereq: Appropriate math placement.

Coreq: MATH 103

Description: MATH 88 provides students with supplemental algebra instruction that directly supports the topics covered in MATH 103.

MATH 99V - Special Studies

See explanation under the heading of Special Studies.

MATH 100 - Survey of Mathematics (FS)

Credits: 3

Class hours: 3 lecture

Prereq: "C" or higher in MATH 75X or MATH 82X; or acceptable math placement test score.

Comments: Not recommended for science and engineering majors.

Description: This course offers a non-technical survey of mathematical concepts and techniques enjoying applications in the daily life of our society. Topics chosen are from the areas of arithmetic, algebra, computers, geometry, logic, probability, and statistics. *F, S*

MATHEMATICS

(MATH) • continued

MATH 103 - College Algebra (FS)

Credits: 3

Class hours: 3 lecture

Prereq: "C" or higher in MATH 25, MATH 26, or MATH 82X; or acceptable math placement test score.

Description: This course is a continuation from elementary algebra.

Topics of study include exponents; algebraic equations and inequalities; absolute value; polynomials, rational, radical, exponential and logarithmic functions; conic sections; systems of equations and inequalities; matrices and determinants. *E, S*

MATH 111 - Math for Elementary Teachers I

Credits: 3

Class hours: 3 lecture

Prereq: Qualified for ENG 100. "C" or higher in MATH 75X or MATH 82X; or acceptable math placement test score.

Comments: This course is intended for prospective elementary education majors only.

Description: This course teaches students to communicate and represent mathematical ideas, how to solve problems, and how to reason mathematically. Material covered includes operations and their properties, sets, counting, patterns, and algebra. *E, S*

MATH 112 - Math for Elementary Teachers II (FS)

Credits: 3

Class hours: 3 lecture

Prereq: "C" or higher in MATH 111.

Comments: This course is intended for prospective elementary education majors only.

Description: This course deals with representations of and operations on the natural numbers, integers, rational numbers, and real numbers. It also explores properties of those operations. *E, S*

MATH 115 - Introduction to Statistics and Probability (FS)

Credits: 3

Class hours: 3 lecture

Prereq: "C" or higher in MATH 75X or MATH 82X; or acceptable math placement test score.

Description: This course utilizes basic statistical topics including measures

of central tendency and dispersion, classification of variables, sampling techniques, elementary probability, normal and binomial probability distributions, tests of hypothesis, linear regression and correlation in order to solve problems. *E, S*

MATH 135 - Pre-Calculus: Elementary Functions

Credits: 3

Class hours: 3 lecture

Prereq: "C" or higher in MATH 103 OR qualified placement test score (COMPASS minimum of 75 in Algebra or 56 in College Algebra).

Description: Students in this course study the operations with, the inverse of, and the multiple representations of functions, including but not limited to linear; quadratic; polynomial; rational; exponential; and logarithmic. Appropriate use of technology is incorporated to enhance the conceptual understanding of mathematics. This course is recommended to students who are pursuing further studies in business, engineering, mathematics and/or sciences. *E, S*

MATH 140 - Pre-Calculus: Trigonometry and Analytic Geometry (FS)

Credits: 3

Class hours: 3 lecture

Prereq: "C" or higher in MATH 135.

Description: The second part of the Pre-Calculus sequence, this course includes a study of trigonometry, analytic geometry and applications. *E, S*

MATH 140X - PreCalculus (FS)

Credits: 4

Class hours: 4 lecture

Prereq: "C" or higher in MATH 103, or acceptable placement score.

Description: Successful completion of MATH 140X will provide students with essential precalculus skills needed in Calculus. Topics of study include but are not limited to functions, with special attention to polynomials, rational, exponential, logarithmic, and trigonometric functions; plane trigonometry; polar coordinates; matrices; and conic sections.

MATH 205 - Calculus I (FS)

Credits: 4

Class hours: 4 lecture

Prereq: "C" or higher in MATH 140 or acceptable math placement test score.

Comments: Credit by exam is not an available option.

Description: This course offers the opportunity to study differential calculus and its applications, and introduces integration. Applications of calculus to physics, chemistry, engineering, biology, economics, and other fields will be studied. Differential calculus is used to study situations as they change, and to find best-case scenarios such as maximum profit. *E, S*

MATH 206 - Calculus II (FS)

Credits: 4

Class hours: 4 lecture

Prereq: "C" or higher in MATH 205.

Comments: Credit by exam is not an available option.

Description: This course offers the opportunity to study integral calculus, transcendental functions, and series representation of functions. Applications include finding the balancing point of an object, computing the force on submerged objects, and modeling population growth, radioactive decay, and the temperature of a heating or cooling object. *S*

MATH 231 - Calculus III

Credits: 3

Class hours: 3 lecture

Prereq: "C" or higher in MATH 206 or equivalent.

Description: MATH 231 covers vector algebra, vector-valued functions, differentiation of functions of several variables, and optimization.

MATH 232 - Calculus IV

Credits: 3

Class hours: 3 lecture

Prereq: "C" or higher in MATH 231 or equivalent.

Description: MATH 232 covers multiple integrals; line integrals and Green's Theorem; surface integrals, and Stokes's and Gauss's Theorems.

MEDICAL ASSISTING (MEDA)

MEDA 105 - Introduction to Medical Assisting

Credits: 3

Class hours: 3 lecture

Prereq: Admission into the Medical Assisting program.

Description: This course provides an introduction to medical assisting. It focuses on the concepts of effective communication and protective practices related to health and safety to prevent illness and injury. Basic nutritional concepts and therapeutic diets will also be discussed. *F*

MEDA 120 - Clinical Medical Assisting I

Credits: 3

Class hours: 2 lecture and 3 lab

Prereq: Admission into the Medical Assisting program.

Description: This course introduces the basic clinical skills and procedures required to function as a medical assistant. Topics include integrated clinical procedures, and assisting with specialty exams and procedures. *F*

MEDA 123 - Clinical Medical Assisting II

Credits: 3

Class hours: 2 lecture and 3 lab

Prereq: "C" or higher in MEDA 120 and MEDA 176.

Coreq: MEDA 220

Description: This course introduces basic specimen collection techniques including the preparation and examination of samples for diagnostic purposes. Advanced techniques and procedures for specialty examinations in the ambulatory care setting will also be included. *S*

MEDA 143 - Administrative Medical Assisting I

Credits: 3

Class hours: 2 lecture and 3 lab

Prereq: Admission into the Medical Assisting program.

Description: This course introduces basic concepts of administrative medical assisting including client scheduling, maintaining of client records, and medical insurance. Communication and confidentiality in relation to administrative duties will also be discussed. *S*

MEDA 165 - Administrative Medical Assisting II

Credits: 2

Class hours: 2 lecture

Prereq: "C" or higher in MEDA 143.

Description: This course focuses on the concepts of administrative medical assisting including medical office coding, billing, insurance claims processes, and human resource management.

MEDA 176 - Administration of Medications

Credits: 3

Class hours: 2 lecture and 3 lab

Prereq: Admission into the Medical Assisting program.

Description: This course will provide an introduction to basic pharmacology and medication administration. Students will learn the basic classification of medications and use applied mathematics and clinical techniques to safely prepare and administer medications in a medical office setting. *F*

MEDA 210 - Medical Assisting Certification Review

Credits: 1

Class hours: 1 lecture

Prereq: "C" or higher in MEDA 120, MEDA 143, and MEDA 176 or approval of instructor.

Description: This course focuses on reviewing medical assisting concepts in preparation for a medical assistant certification exam. Certification test taking skills and preparation will also be discussed.

MEDA 220 - Medical Assisting Externship

Credits: 4

Class hours: 12 lab

Prereq: "C" or higher in MEDA 120 and MEDA 176.

Coreq: MEDA 123

Description: This course will provide students with supervised clinical experience and the opportunity to integrate medical assisting skills into a real life setting. Clinical experiences will take place in medical offices.

MICROBIOLOGY (MICR)

MICR 130 - General Microbiology (DB)

Credits: 3

Class hours: 3 lecture

Prereq: Qualified for ENG 100. Qualified for MATH 82X.

Coreq: MICR 140

Description: This introductory course is oriented toward medical microbiology and the study of microorganisms with emphasis on bacteria. It includes microbial metabolism, genetics, immunology, selected topics in applied microbiology, viruses, antibiotics, and microbial diseases. *F, S*

MICR 140 - Microbiology Laboratory (DY)

Credits: 2

Class hours: 4 lecture/lab

Prereq: "C" or higher in or concurrent enrollment in MICR 130.

Coreq: MICR 130

Comments: Credit by exam is not an available option.

Description: This course provides laboratory exercises that demonstrate fundamental principles of microbiology. The class is primarily for students in health sciences. *F, S*

MUSIC **(MUS)**

MUS 121B - Elementary Voice Class (DA)

Credits: 2

Class hours: 1 lecture and 2 direct method

Description: This course of beginning voice instruction emphasizes proper breathing and vocal placement. The primary objective of the course is to free the voice. *F, S*

MUS 121C - Elementary Piano Class (DA)

Credits: 2

Class hours: 1 lecture and 2 direct method

Description: This course provides beginning piano instruction teaching students basic keyboard skills and concepts of melody, rhythm, harmony, and form. The study of popular music and classical music of the 18th through 20th centuries is included. *F, S*

MUS 121D - Elementary Guitar (DA)

Credits: 2

Class hours: 1 lecture and 2 direct method

Comment: May be repeated for a maximum of 4 credits.

Description: This is an introductory classroom instruction in the art of classic guitar playing. It will deal with solo and ensemble performance, technique, music reading, interpretation, stage etiquette, and music literature. *F, S*

MUS 121F - Elementary Slack Key Guitar (DA)

Credits: 1

Class hours: 2 direct method

Description: This course takes up the fundamentals of slack key playing. The emphasis is on slack key techniques using the standard G and double slack key tunings. Reading of tablature and the counting of basic rhythms will also be covered. No prior training in any style of guitar playing is required. Students must provide their own guitars. *F, S*

MUS 122B - Intermediate Voice Class (DA)

Credits: 2

Class hours: 1 lecture and 2 direct method

Prereq: "C" or higher in MUS 121B.

Description: This course is a continuation of MUS 121B and develops principles of voice production, correct voice placement, breath control, vocal range, diction, dynamics, phrasing, interpretation, and stage presence. Students perform songs of various styles. *F, S*

MUS 122C - Piano Class II (DA)

Credits: 2

Class hours: 1 lecture and 2 direct method

Prereq: "A" in MUS 121C or approval of instructor.

Comment: May be repeated for a maximum of 4 credits.

Description: This course is a continuation of MUS 121C to develop more complex keyboard skills and concepts of melody, rhythm, harmony, and form. It includes popular music and classical music. *F, S*

MUS 150 - Introduction to Band (DA)

Credits: 1

Class hours: 2 direct method

Comments: Course repeatable for a maximum of 2 credits.

Description: This course is for beginners and former players of band instruments who would like to develop or regain their facility on an instrument.

MUS 166 - Survey of Folk, Pop, and Rock Music to 1985 (DA)

Credits: 3

Class hours: 3 lecture

Comments: No music background is required.

Description: This course is a study of folk, pop and rock music of the 20th century. Students will look at important composers, styles and performers in a historical framework. *F, S*

MUS 199V - Special Studies

See explanation under the heading of Special Studies.

MUS 201 - Vocal Ensemble (DA)

Credits: 2

Class hours: 1 lecture and 2 direct

Comments: May be repeated any number of times for credit.

Description: Study and performance of choral literature from Renaissance to present. A capella and choral/instrumental repertoire. *F, S*

MUS 202 - College Band (DA)

Credits: 1

Class hours: 2 lecture/lab

Prereq: Approval of instructor.

Recommended: Experience with instrumental performance.

Comments: May be repeated any number of times for credit.

Description: This course covers the performance of band literature with emphasis on excellence in musical performance and development of professional musicianship. Class members will participate in rehearsals and concerts. *F, S*

MUS 203G - College Orchestra (DA)

Credits: 1

Class hours: 2 lecture/lab

Prereq: Approval of instructor.

Recommended: Minimum of one year's study on an instrument and experience in reading music.

Comments: May be repeated any number of times for credit.

Description: This course provides an opportunity for orchestral musicians to perform repertoire ranging from Renaissance and Baroque to contemporary popular music. *F, S*

MUSIC **(MUS) • continued**

MUS 204 - Jazz Ensemble (DA)

Credits: 1

Class hours: 2 lecture/lab

Prereq: Approval of instructor.

Recommended: Audition.

Comments: May be repeated any number of times for credit.

Description: This course is the performance of stage band literature from swing to contemporary periods. Students will study jazz concepts, including improvisation. Public performances are required. *F, S*

MUS 220 - Musical Theatre (DA)

Credits: 3

Class hours: 3 lecture

Comment: May be repeated for a maximum of 6 credits.

Description: This course provides students with the opportunity to study vocal and theatrical technique in a musical theatre context.

MUS 253 - Basic Experiences of Music (DA)

Credits: 3

Class hours: 3 lecture

Comment: May be repeated for a maximum of 6 credits.

Description: This course is an engagement in the practice of the components of music, specifically, time, pitch, media, musical expression, and form, and how these interact with each other to comprise a musical experience. The means through which these components will be explored are singing; using rhythm instruments, playing recorder, ukulele, bells, piano, and other classroom instruments; listening as a primary means of engaging the musical mind; movement as a primary means of engaging the kinesthetic and body senses; performing from notation; notating music; and analyzing music aurally and from score. *F*

MUS 254 - Songwriting and Transcription (DA)

Credits: 3

Class hours: 3 lecture

Prereq: "C" or higher in MUS 253.

Description: The course is divided into three parts, and each part constitutes approximately one-third of the semester. Part I focuses on developing aural skills (recognition and notation of intervals, rhythm, and harmony) and the setting of text and music. Part II is a study of standard song structures, harmonic progressions, and notation with the Sibelius music software. Part III will be devoted to song composition. The student will compose at least four songs and notate them with the Sibelius music software. *S*

NURSING

(NURS)

NURS 12 - ARCH: Common Diseases, Special Diets, and Medications

Credits: 2

Class hours: 2 lecture

Prereq: Qualified for ENG 100X. Nurse Aide with one year work experience.

Comments: Credit by exam is not an available option.

Description: This course prepares the adult residential care home (ARCH) licensee/primary care giver (PCG) to observe the resident for signs and symptoms of common diseases, make medications available, and prepare balanced and special diets. *Su*

NURS 13 - ARCH: Specialized Populations, Communication, and Rehabilitation

Credits: 1

Class hours: 1 lecture

Prereq: Qualified for ENG 100X. Nurse Aide with one year work experience.

Comments: Credit by exam is not an available option.

Description: This course prepares the adult residential primary care givers to assist in the provision of occupational, physical, recreational, and diversional therapy and identifies the operator's role in fostering mental health and care of the mentally ill and the developmentally disabled resident. *Su*

NURS 14 - ARCH: Regulations, Accounts, and Community Resources

Credits: 1

Class hours: 1 lecture

Prereq: Qualified for ENG 100X. Nurse Aide with one year work experience.

Comments: Credit by exam is not an available option.

Description: This course prepares the adult residential care home primary care giver (PCG) to implement specified regulations of Hawai'i Administrative Rules (HAR) Title 11 Chapter 11-100.1, to implement simple accounting records and to identify community resources available to residents and PCGs. *Su*

NURS 23 - School Health Aide Level I

Credits: 3

Class hours: 2 lecture and 3 lab

Prereq: High School diploma or its equivalent, current First Aid and CPR certificates.

Description: This course prepares entry level school health aides to function successfully in the school health environment. Students will learn to provide culturally sensitive and competent care to elementary, middle and high school students. Successful completion of the course will enable students to apply for a School Health Aide I position with the Hawai'i Department of Education (DOE).

NURS 99V - Special Studies

See explanation under the heading of Special Studies.

NURS 100 - Nurse Aide

Credits: 3

Class hours: 3 lecture

Prereq: Qualified for ENG 100X.

Coreq: NURS 100L

Comments: Credit by exam is not an available option.

Description: This course prepares entry-level nurse aides to provide care to the elderly, ill, and disabled. Topics include personal care, infection control, communication, resident rights, emotional support and care of special populations. After successful completion of NURS 100 and NURS 100L, students are eligible to take the State of Hawai'i Nurse Aide certification exam. *F, S*

NURS 100L - Nurse Aide Clinical Lab

Credits: 2

Class hours: 6 lab

Prereq: Qualified for ENG 100X.

Basic life support CPR and first aid certification, malpractice insurance, health clearances, and criminal background check.

Coreq: NURS 100

Description: This course prepares entry level nurse aides to provide care to the elderly, ill, and disabled. Course activities will take place in the clinical lab and in off-site clinical environments.

Topics include personal care, infection control, communication, resident rights, emotional support and care of special populations. After successful completion of NURS 100 and NURS 100L, students are eligible to take the State of Hawai'i Nurse Aide certification exam.

NURS 199V - Special Studies

See explanation under the heading of Special Studies.

NURS 203 - General Pharmacology

Credits: 3

Class hours: 3 lecture

Prereq: "C" or higher in NURS 210 and NURS 211.

Coreq: NURS 220

Description: This course discusses drugs with an emphasis on sites and mechanisms of action, toxicity, fate, and uses of major therapeutic agents. This class is intended for students in health sciences and related fields.

NURS 210 - Health Promotion Across the Lifespan

Credits: 9

Class hours: 3 lecture and 18 lab

Prereq: Admission into the Career Ladder Nursing Program.

Coreq: NURS 211 and NURS 212

Description: This course focuses on identifying needs of the total person across the lifespan in a wellness/health promotion model of care. It introduces the roles of the nurse, nursing code of ethics, and the nursing process with emphasis on learning self-health and client health practices. To support self-health and client health practices, students learn to access research evidence about healthy lifestyle patterns and risk factors for disease/illness, apply growth and development theory, interview clients in a culturally sensitive manner, and work as members of a multidisciplinary team utilizing reflective thinking and self-analysis. *F*

NURSING

(NURS) • continued

NURS 211 - Professionalism in Nursing I

Credits: 1

Class hours: 1 lecture

Prereq: Admission into the Career Ladder Nursing Program.

Coreq: NURS 210 and NURS 212

Description: This first level course focuses on the history of nursing practice and education. Ethical and legal aspects as well as professional responsibilities in the practice of nursing are emphasized. *F*

NURS 212 - Pathophysiology

Credits: 3

Class hours: 3 lecture

Prereq: "C" or higher in ZOOL 141 and ZOOL 141L.

Coreq: ZOOL 142 and ZOOL 142L

Description: This course will introduce students to pathophysiologic concepts which serve as a foundation to understanding the basis of illness and injury and their corresponding spectrum of human response. These concepts will serve as a foundation for the formulation of clinical decisions and care planning. *F*

NURS 220 - Health and Illness I

Credits: 10

Class hours: 4 lecture and 18 lab

Prereq: "C" or higher in NURS 210 and NURS 211.

Coreq: NURS 203

Description: This course provides an opportunity for students to develop their assessment skills and utilize common nursing interventions for clients with illnesses common across the lifespan in communities in Hawai'i. The client and family's understanding and acceptance of their illness coupled with clinical practice guidelines and evidence-based research are used to guide clinical judgment in nursing care. Roles of the interdisciplinary team and legal aspects of delegation are explored in the context of nursing care. The cultural, ethical health policy and healthcare delivery system are explored. *S*

NURS 230 - Clinical Immersion I

Credits: 4

Class hours: 1 lecture and 9 lab

Prereq: "C" or higher in NURS 220 and NURS 203.

Description: This course focuses on monitoring a variety of subjective and objective data, identifying obvious patterns and deviations, and developing a prioritized intervention plan for specific populations. In this course, students will implement new nursing skills with supervision, develop their own beginning leadership abilities, and acknowledge delegation as a needed modality to improve client care. *Su*

NURS 259 - Basic ECG Interpretation for Health Care Providers

Credits: 2

Class hours: 2 lecture

Prereq: Concurrent enrollment in the Nursing program, licensed Registered Nurse, Emergency Medical Technician, or approval of instructor.

Comments: Credit by exam is not an available option.

Description: This course develops nursing theory related to the accurate interpretation of cardiac rhythms and arrhythmias on the 12 lead electrocardiogram (ECG). The focus is on the cardiac conduction system, electrophysiology, and a systematic approach to the interpretation and treatment of cardiac rhythms and arrhythmias. *S*

NURS 275 - NCLEX Review

Credits: 2

Class hours: 2 lecture

Prereq: "C" or higher in NURS 320 or approval of instructor.

Description: This course provides opportunity for synthesis and evaluation of professional nursing practice essential to care of clients and to assist in achieving successful completion of the NCLEX board exam and licensure requirements. Emphasis is placed on refinement of critical thinking, communication skills, and the integration of a range of therapeutic interventions into nursing practice, including those appropriate to individual clients, their families/significant others, and relevant population-based groups. *S*

NURS 277 - International Nursing

Credits: 2

Class hours: 4 lecture/lab

Prereq: Application and approval of instructor.

Comments: May be repeated for a maximum of 2 credits.

Description: This course explores the healthcare system in Japan and how it has changed since WWII. Students will travel to Japan to experience, compare, and contrast the healthcare with/between US/Hawaii and Japan (Nagasaki or Okinawa). Students will explore effects of WWII, then and currently, on the people of Japan and themselves.

NURS 299V - Special Studies

See explanation under the heading of Special Studies.

NURS 301 - Introduction to Evidence-Based Practice and Health Promotion

Credits: 3

Class hours: 3 lecture

Prereq: Nursing program approval.

Description: This course provides a transition for nurses into the Hawai'i Statewide Nursing Consortium (HSNC) model of teaching and learning with an introduction to the competencies and concepts. Students learn to access research evidence to support their practice, explore personal and professional goals, and work as members of a multidisciplinary team utilizing reflective thinking and self-analysis. *S*

NURS 320 - Health and Illness II

Credits: 10

Class hours: 4 lecture and 18 lab

Prereq: "C" or higher in NURS 230.

Description: This course focuses on the nursing care and health promotion for maternal-newborn and pediatric clients and families in the acute care and community settings. Students will learn to utilize family theories and assessment tools when providing culturally sensitive, client-centered care. *F*

NURSING *(NURS) • continued*

NURS 360 - Health and Illness III

Credits: 9

Class hours: 3 lecture and 18 lab
Prereq: "C" or higher in NURS 320.
Coreq: NURS 362

Description: This course builds on Health and Illness I and II, focusing on more complex and/or unstable patient care situations some of which require strong recognition skills and rapid decision-making. The evidence base supporting appropriate focused assessment and effective, efficient nursing intervention are explored. Lifespan and developmental factors, cultural variables, and legal aspects of care frame the ethical decision-making employed in patient choices for treatment or palliative care within the acute care, psychiatric, and home health settings. Case scenarios incorporate prioritizing care needs, delegation and supervision, family and patient teaching for discharge planning, home health care, and/or end of life care. S

NURS 362 - Professionalism in Nursing II

Credits: 1

Class hours: 1 lecture
Prereq: "C" or higher in NURS 320.
Coreq: NURS 360

Description: The focus will be on nursing responsibility with regard to current issues in nursing and health care. Included will be the nurse's role as a contributing member of the profession and the community. The theoretical basis for designing and implementing systems of nursing at the beginning level of patient management in an institutional setting will be examined. Principles of organizational structure, leadership, decision-making, priority setting, and change will be discussed. S

OCEANOGRAPHY *(OCN)*

OCN 101 - Introduction to Marine Option Program

Credits: 1

Class hours: 1 lecture
Prereq: Qualified for ENG 100.

Description: The course provides statewide information to students interested in learning more about the ocean and freshwater systems by becoming involved in the Marine Option Program (MOP). The course will review the requirements of the MOP Certificate of Completion, explore opportunities for internships, research projects, and careers dealing with water environments. The course will also present guidelines in proposal writing, project implementation, data collection and interpretation, report preparation, and formal project presentation. F, S

OCN 120 - Global Environmental Challenges (DP)

Credits: 3

Class hours: 3 lecture
Prereq: Qualified for ENG 23 (Note: For the Fall 2016 only, ENG 97). Qualified for MATH 82X.

Description: This course focuses on scientific approaches to evaluating human-caused environmental challenges and their potential solutions. S

OCN 199V - Marine Research and Directed Reading

Credits: 1-4

Class hours: 3 hours (1 credit), 5 hours (2 credits), 7 hours (3 credits), or 9 hours (4 credits)

Prereq: "C" or higher in OCN 101 and OCN 201. Approval of instructor.

Comments: May be repeated for a maximum of 8 credits.

Description: This course provides an opportunity for students to design and carry out marine-related internships, practica, research projects, or field experience on or off campus under the supervision of a faculty member and the guidance of a science mentor. It includes a project proposal, research, data collection and analysis, a final report, and an oral presentation. A project worth 3 credits is required for the Marine Option Program (MOP) Academic Subject Certificate. F, S

Effective Through Fall 2016

OCN 201 - Science of the Sea (DP)

Credits: 3

Class hours: 3 lecture
Prereq: Qualified for ENG 100 and MATH 82X.

Description: This is a survey course of the ocean involving the study of the geological, physical, chemical, and biological properties of the ocean. A number of subjects are studied to include the ocean basin, seawater properties, currents, waves, tides, marine organisms, and the ecological principles of man and the sea. F, S

Effective Spring 2017:

OCN 201 - Science of the Sea (DP)

Credits: 3

Class hours: 3 lecture
Prereq: Qualified for ENG 100 and MATH 82X.

Description: This is a survey course of the ocean involving the study of the geological, physical, chemical, and biological properties of the ocean. A number of subjects are studied to include the ocean basin, seawater properties, currents, waves, tides, marine organisms, and the ecological principles of humans and the sea.

PHILOSOPHY (PHIL)

PHIL 100 - Introduction to Philosophy (DH)

Credits: 3

Class hours: 3 lecture

Description: In this course, students will be introduced to the nature of philosophical inquiry by considering some of the most fundamental questions that can be asked about the nature of reality, human beings and our knowledge of both: Does god exist? Do human beings have free will? What's the essence of personal identity? What does it mean to have knowledge? Can we know anything at all? Do human beings have an obligation to act morally? What makes a particular action moral or immoral? Is it morally permissible for a woman to have an abortion? Do the citizens of wealthier nations have a moral obligation to help end extreme poverty and world hunger? *E, S*

PHIL 101 - Morals and Society (DH)

Credits: 3

Class hours: 3 lecture

Description: In this course, students will be introduced to the nature of philosophical inquiry by considering some of the most fundamental and controversial questions in moral philosophy: Do human beings have an obligation to act morally? Where do our moral principles come from? Are there objective moral truths? What makes a particular action moral or immoral? Is it morally permissible for a woman to have an abortion? When, if ever, is the government justified in moral censorship? What sort of sexual behavior is morally permissible? Do the citizens of wealthier nations have a moral obligation to help end extreme poverty and world hunger? *E, S, Su*

PHIL 102 - Introduction to Philosophy: Asian Traditions

Credits: 3

Class hours: 3 lecture

Prereq: Qualified for ENG 100.

Description: This course will explore issues and problems using a comparative philosophy methodology and Asian perspectives, including Indian, Chinese, and Japanese traditions.

PHIL 103 - Environmental Ethics

Credits: 3

Class hours: 3 lecture

Prereq: Qualified for ENG 100.

Description: This course offers a critical examination of the history of multi-cultural philosophical and ethical systems and their implications for interactions with and relationships between humans and non-humans. The critical examination will take place in the context of contemporary environmental/ecological issues.

PHIL 110 - Introduction to Logic (FS)

Credits: 3

Class hours: 3 lecture

Description: In this course, students will be introduced to the nature, application and evaluation of correct reasoning. Primary attention will be devoted to developing each student's critical thinking skills by means of analyzing and evaluating arguments. Logic is an analytic tool that can be applied to any intellectual endeavor in which people attempt to give reasons to support conclusions. However, it is especially useful in fields such as philosophy, law, mathematics and computer science. *E, S, Su*

PHILOSOPHY

(PHIL) • continued •

PHIL 204 - Film and Philosophy (DH)

Credits: 3

Class hours: 3 lecture

Description: In this course, students will watch a selection of movies and analyze them in light of the various philosophical ideas that they explore. Primary attention will be devoted to identifying, considering and evaluating these philosophical ideas, the ways they are artistically presented in film and their connections to both traditional philosophical problems and each student's personal world and life view. One overriding theme of the course will be a focus on the philosophy of human nature and the so-called "fragile human condition."

Effective Through Fall 2016

PHIL 211 - Ancient Greek Philosophy (DH)

Credits: 3

Class hours: 3 lecture

Description: In this course, students will be introduced to a range of important ideas, arguments and theories advanced by such ancient Greek philosophers as the so-called Pre-socratics, Socrates, Plato, Aristotle and the Hellenistic Stoics, Epicureans and Skeptics. These thinkers were some of the first in Western history to rationally consider fundamental questions about the nature of reality, human beings and our knowledge of both. Their innovative ideas and wonderful insights influenced the development of all subsequent philosophy still continue to fascinate, challenge and instruct even the best modern minds. *F, S*

Effective Spring 2017:

PHIL 211 - Ancient Greek Philosophy (DH)

Credits: 3

Class hours: 3 lecture

Description: This course explores a range of important ideas, arguments and theories advanced by such ancient Greek philosophers as the Pre-Socratics, Socrates, Plato, Aristotle, the Hellenistic Stoics, Epicureans and Skeptics. Using these thinkers, we will explore such timeless issues as what is the nature of reality and knowledge and what does it mean to be human, including what does it mean to be virtuous and good and what does it mean to love.

PHIL 213 - Modern Philosophy (DH)

Credits: 3

Class hours: 3 lecture

Description: In this course, students will be introduced to a range of important ideas, arguments and theories advanced by such "modern" (17th-18th century) philosophers as Hobbes, Descartes, Spinoza, Leibniz, Locke, Berkeley, Hume, Kant, Nietzsche, etc. Primary attention will be devoted to the so-called "rationalist" and "empiricist" traditions and the way these modern philosophical traditions considered fundamental questions about the nature of reality, human beings and our knowledge of both. Immanuel Kant's important critique of these traditions and the way his ideas influenced the development of subsequent philosophy will also be considered. *S*

PHYSICS (PHYS)

PHYS 101 - Career and Technical Education Physics

Credits: 3

Class hours: 3 lecture

Prereq: "C" or higher in MATH 75X or MATH 82X.

Description: This course investigates the nature of science and selected topics among linear and rotational mechanics, problems of matter, energy, optics, pressure, fluids, wave motion, electricity, or magnetism. Basic trigonometry is introduced and used along with introductory algebra to solve problems. Emphasis is placed on practical applications of physics in industry and in everyday life. S

PHYS 151 - College Physics I (DP)

Credits: 3

Class hours: 3 lecture

Prereq: Qualified for MATH 135.

Coreq: PHYS 151L

Description: This course is an introduction to the physical concepts of mechanics, fluids, sound, and heat using algebra and trigonometry as tools to solve related problems. F (every 2 years)

PHYS 151L - College Physics I Laboratory (DY)

Credits: 1

Class hours: 3 lab

Coreq: PHYS 151

Comments: Credit by exam is not an available option.

Description: This class provides elementary experiments in physics correlated with PHYS 151. F (every 2 years)

PHYS 152 - College Physics II (DP)

Credits: 3

Class hours: 3 lecture

Prereq: "C" or higher in PHYS 151. "C" or higher in or concurrent enrollment in MATH 140.

Coreq: PHYS 152L

Description: This course is an introduction to the physical concepts of electricity, magnetism, light, and modern physics, using algebra and trigonometry as tools to solve related problems. S (every 2 years)

PHYS 152L - College Physics II Laboratory (DY)

Credits: 1

Class hours: 3 lab

Coreq: PHYS 152

Comments: Credit by exam is not an available option.

Description: This course offers elementary experiments in physics correlated with PHYS 152. S (every 2 years)

PHYS 170 - General Physics I (DP)

Credits: 4

Class hours: 4 lecture

Prereq: "C" or higher in or concurrent enrollment in MATH 205.

Coreq: PHYS 170L

Description: This course is an introduction to the physical concepts of classical mechanics, fluid dynamics, wave theory, and thermodynamics using algebra and calculus as tools to solve related problems. F (every 2 years)

Effective Through Fall 2016

PHYS 170L - General Physics I Laboratory (DY)

Credits: 1

Class hours: 3 lab

Prereq: "C" or higher or concurrent enrollment in PHYS 170.

Coreq: PHYS 170

Comments: Credit by exam is not an available option.

Description: This course is an introduction to the analysis of experiments in classical mechanics, fluid dynamics, wave theory, and thermodynamics. F (every 2 years)

Effective Spring 2017:

PHYS 170L - General Physics I Laboratory (DY)

Credits: 1

Class hours: 3 lab

Prereq: "C" or higher or concurrent enrollment in PHYS 170.

Description: This course is an introduction to the analysis of experiments in classical mechanics, fluid dynamics, wave theory, and thermodynamics.

PHYS 272 - General Physics II (DP)

Credits: 3

Class hours: 3 lecture

Prereq: "C" or higher in PHYS 170. "C" or higher in or concurrent enrollment in MATH 206.

Coreq: PHYS 272L

Description: This course is an introduction to the physical concepts of electromagnetism, optics, and quantum physics using algebra and calculus as tools to solve related problems. S (every 2 years)

PHYS 272L - General Physics II Laboratory (DY)

Credits: 1

Class hours: 3 lab

Prereq: "C" or higher in or concurrent enrollment in PHYS 272.

Comments: Credit by exam is not an available option.

Description: This course is an introduction to the analysis of experiments in electromagnetism, optics, and quantum physics. S (every 2 years)

PLANT BIOSCIENCE TECHNOLOGY (PBT)

PBT 100 - Orientation to Hawai'i Agriculture Industry

Credits: 1

Class hours: 1 lecture

Description: This course includes an independent reading and research; preparation of abstracts, outlines, and resumes; and oral presentation of information on agriculture-related topics.

F

PBT 141 - Integrated Pest Management (DB)

Credits: 3

Class hours: 2 lecture and 2 lecture/lab

Description: This course includes an introduction to the principles involved in the control of plant pests including diseases, insects, mites, nematodes, and weeds. Various methods of controlling pests, including the correct method of selecting and applying pesticides will be covered. A presentation on one example of Integrated Pest Management will be required. S

PBT 204 – Fundamentals of Tropical Soil Science (DP & DY)

Credits: 4

Class hours: 3 lecture and 3 lab

Prereq: "C" or higher in MATH 75X or MATH 82X.

Description: This course covers the origin, development, properties, classification, use, and management of soils with emphasis on applications in the tropics. The lecture and laboratory for PBT 204 are combined.

PBT 264 - Introduction to Horticulture and Plant Propagation

Credits: 3

Class hours: 2 lecture and 2 lecture/lab

Prereq: "C" or higher in HORT 200.

Description: This is an introductory course in the principles and practices of plant propagation. Studies include seed and vegetative propagation of fruit, vegetable, and ornamental crops. Methods of propagation include: seed, cutting, grafting, air layering, and division. F

PBT 275 - Introduction to Crop Improvement (DB)

Credits: 3

Class hours: 3 lecture

Prereq: 1) "C" or higher in either BOT 101, HORT 200, or SCI 121/121L. 2) "C" or higher in MATH 75X or MATH 82X.

Description: This course includes fundamentals of genetic theory using biotechnological procedures in insect and plant pathogen control and plant and animal breeding as practical applications.

PBT 290V - Plant Biology and Tropical Agriculture Internship

Credits: 1-3

Class hours: 75 or more hours of work (1 credit), 150 hours or more of work (2 credits), or 225 hours or more of work (3 credits)

Prereq: Approval of instructor.

Comments: May be repeated for a maximum of 12 credits. The Plant Biology and Tropical Agriculture ASNS, AS, and CA require 3 credits of PBT 290V which may be accumulated over multiple semesters. PBT 290V credits in excess of this amount may be applied as electives.

Description: The course provides credit for supervised experiential learning projects including independent research projects with an instructor and internships with an employer. The nature of the internship or research project is variable but will be designed to provide an opportunity for experiential learning. Students may enroll in 1-3 credits of PBT 290V per semester, depending on project time commitment.

F, S, Su

POLITICAL SCIENCE (POLS)

POLS 110 - Introduction to Political Science (DS)

Credits: 3

Class hours: 3 lecture

Prereq: Qualified for ENG 100.

Description: This course covers the basic concepts associated with political systems, ideologies, institutions, and decision-making agencies. *F, S*

PSYCHOLOGY (PSY)

PSY 100 - Survey of Psychology (DS)

Credits: 3

Class hours: 3 lecture

Description: This is a foundation course in the concepts and ideas in psychology. Among the areas studied are the development of individual differences; measurement of capacities and abilities; and psychological bases of behavior, including emotions, learning, memory, thinking, and motivation.

PSY 220 - Developmental Psychology (DS)

Credits: 3

Class hours: 3 lecture

Description: This course offers principles of development from conception to death. The focus is on the interrelationship of physical, cognitive, and social-emotional aspects of the individual. *F, S*

RELIGION (REL)

REL 122 - Greek and Roman Mythology (DL)

Credits: 3

Class hours: 3 lecture

Description: In this course, students will be introduced to the primary narratives that the ancient Greeks and Romans told about their gods, their world and themselves. The emphasis throughout the course will be on reading, analyzing and evaluating the literature of classical Greek and Roman mythology. One overriding theme of the course will be a focus on human nature and the so-called "fragile human condition" as it is portrayed in classical mythology.

REL 150 - Introduction to World Religions (FGC)

Credits: 3

Class hours: 3 lecture

Description: In this course, students will explore the history, literature, beliefs and practices of the world's major religious traditions in an effort to understand how they shed light on the fabric of reality as well as the nature, meaning and struggles of human existence. Some of the religious traditions that will be considered include Hinduism, Buddhism, Judaism, Christianity and Islam. *F, S, Su*

REL 205 - Understanding Hawaiian Religion (DH)

Credits: 3

Class hours: 3 lecture

Prereq: Qualified for ENG 100.

Description: This course is an introductory survey of Hawaiian religious beliefs and practices, from migration to the early contact era. *F, S*

REL 210 - Christianity (DH)

Credits: 3

Class hours: 3 lecture

Description: In this course, students will be introduced to the historical, literary and theological foundations of Christian thought and practice. Some of the topics that will be considered include: The historical and theological connections between the so-called Old and New Testaments; The person and work of Christ; The doctrines of salvation, the church and the "end times"; The inspiration, reliability and authority of scripture.

SALES AND MARKETING (SMKT)

SMKT 150 - Principles of Personal Selling

Credits: 3

Class hours: 3 lecture

Comments: Credit by exam is not an available option.

Description: Students learn the fundamental principles of selling, with an emphasis on the techniques of selling: the approach, sales presentation, handling of objections, and the close. Sales demonstrations are required. S

SCIENCE (SCI)

SCI 121 - Introduction to Science (Biological Science) (DB)

Credits: 3

Class hours: 3 lecture

Description: This general introduction to the basic concepts of biology is intended to provide the non-science majors with a basic understanding of their own bodies and the environment in which they live. F, S

SCI 121L - Introduction to Science Laboratory (Biological Science) (DY)

Credits: 1

Class hours: 3 lab

Prereq: "C" or higher in or concurrent enrollment in SCI 121.

Comments: Credit by exam is not an available option.

Description: This laboratory science course is designed to accompany SCI 121. F, S

SCI 122 - Introduction to Science: Physical Science (DP)

Credits: 3

Class hours: 3 lecture

Prereq: Qualified for ENG 100. Qualified for MATH 82X.

Coreq: SCI 122L

Description: Students will explore how relatively simple physical principles can explain and predict the outcome of natural events observed on Earth and beyond. F

SCI 122L - Introduction to Physical Science Laboratory (DY)

Credits: 1

Class hours: 3 lab

Prereq: "C" or higher in or concurrent enrollment in SCI 122.

Comments: Credit by exam is not an available option.

Description: This course provides hands-on learning activities, investigates methods of general scientific inquiry, and explores laboratory methods in physical sciences such as physics, chemistry, astronomy, geology, meteorology, and oceanography. Students will also explore characteristics of science and its utility in gaining knowledge and solving problems. F

SCI 170 - STEMINAR: Science, Technology, Engineering, and Mathematics Seminar

Credits: 1

Class hours: 1 lecture

Description: This course primarily explores current topics in science, technology, engineering, and mathematics (STEM) in a seminar format. The course will also cover the process and guidelines of science, careers pathways in STEM, and the role of STEM in our modern economy and society. F

SOCIAL SCIENCE (SSCI)

SSCI 199V - Special Studies

See explanation under the heading of Special Studies.

SSCI 250 - Ecology and Society (DS)

Credits: 3

Class hours: 3 lecture

Description: This course is an introduction to human/environment interactions from the perspectives of anthropology, sociology, and political economy as people and societies live within the limits presented by the reality of basic laws of science. The mutual interconnectedness of people and nature will be emphasized. F, S

SOCIOLOGY (SOC)

SOC 100 - Introduction to Sociology (DS)

Credits: 3

Class hours: 3 lecture

Prereq: Qualified for ENG 100.

Description: Analysis of human behavior and relationships in the context of culture and social structure. Research findings inform the study of social phenomena. Concepts are illustrated with references to relevant contemporary social phenomena. F, S

SPANISH (SPAN)

SPAN 101 - Elementary Spanish I

Credits: 4

Class hours: 4 lecture

Prereq: Qualified for ENG 100.

Comments: The laboratory is part of the class.

Description: Introduction to the Spanish language emphasizing conversation, listening, grammar, reading, and writing. F

SPAN 102 - Elementary Spanish II

Credits: 4

Class hours: 4 lecture

Prereq: "C" or higher in SPAN 101.

Comments: The laboratory is part of the class.

Description: Continuation of SPAN 101: conversation, listening, grammar, reading, and writing. S

SPAN 199V - Special Studies

See explanation under the heading of Special Studies.

SPAN 201 - Intermediate Spanish I

Credits: 3

Class hours: 3 lecture

Prereq: "C" or higher in SPAN 102.

Description: Continuation of SPAN 102. Students will refine basic language skills through conversation, listening, and instruction in grammar, reading, and writing. F

SPAN 202 - Intermediate Spanish II

Credits: 3

Class hours: 3 lecture

Prereq: "C" or higher in SPAN 201.

Description: Continuation of SPAN 201: conversation, listening, and instruction in grammar, reading, and writing. S

SPAN 299V - Special Studies

See explanation under the heading of Special Studies.

SPECIAL STUDIES

Special Studies - 99V, 199V, 299V

Credits: 1-4

Class hours: 3 hours (1 credit), 5 hours (2 credits), 7 hours (3 credits), 9 hours (4 credits)

Prereq: Approval of instructor.

Comments: May be repeated any number of times for credit.

Description: This course provides an opportunity for the student with special interests and abilities in subject areas to meet with a faculty member to discuss and investigate advanced studies, topics, and/or projects beyond those offered in regular courses. The problem and unit credit will be delineated in a proposal submitted by the student working with, and at the discretion of, the instructor. (Note: Special Studies sections will be offered as needed by each discipline and identified by that program's alpha.)

SPEECH (SP)

SP 151 - Personal and Public Speaking (DA)

Credits: 3

Class hours: 3 lecture

Prereq: Qualified for ENG 100X.

Description: This course is an introduction to the fundamentals of speech communication. Students engage in activities to acquire competence in interpersonal, small group, and public communication.

F, S, Su

SP 181 - Interpersonal Communication (Spring 2017: DS)

Credits: 3

Class hours: 3 lecture

Prereq: Qualified for ENG 100.

Description: Interpersonal Communication explores through theory and practice the ways people communicate one-on-one and in informal situations. This course builds communication skills through experiential activities.

SP 185 - Intercultural Communication (DS)

Credits: 3

Class hours: 3 lecture

Prereq: Qualified for ENG 100 or "C" or higher in SP 151.

Description: This course analyzes human communication behaviors as well as verbal and nonverbal coding as it has been used and is currently used throughout the world. Students will examine how influences such as economics, science, politics, ecological concerns, social and family structures, and individual personalities affect communication transactions. Students will practice cross-cultural communication skills. F, S

SP 199V - Special Studies

See explanation under the heading of Special Studies.

SPEECH *(SP) (continued)*

SP 231 - Performance of Literature (DA)

Credits: 3

Class hours: 3 lecture

Prereq: Qualified for ENG 100. "C" or higher in SP 151 or SP 251.

Description: This course introduces the student to the study of literature through performance. The student participates in individual and group presentations of poetry, prose, and drama. The process involved in preparation of a literary piece of performance leads to exploration and discoveries of multiple aesthetic dimensions of literature. Development of speech performance skills, written analysis of literature to be performed, and experience in critiquing presentations are areas stressed in the course. *F, S*

SP 251 - Principles of Effective Public Speaking (DA)

Credits: 3

Class hours: 3 lecture

Prereq: Qualified for ENG 100 or "C" or higher in SP 151.

Description: This is a combined lecture/lab course providing extensive practice in preparing and presenting effective public speeches with special emphasis on organization, outlining, audience analysis, analytical reasoning, and delivery skills. *F, S*

SP 299V - Special Studies

See explanation under the heading of Special Studies.

SUSTAINABLE SCIENCE MANAGEMENT (SSM)

SSM 101 - Sustainability in a Changing World (FGB)

Credits: 3

Class hours: 3 lecture

Prereq: Qualified for ENG 23 (Note: For the Fall 2016 only, ENG 97). Qualified for MATH 82X or concurrent enrollment in MATH 75X or higher.

Recommended: ENG 100

Description: This course identifies sustainability concepts which have become evident from early human movement toward Industrialization in the 1500s to the present. Examines diverse societal circumstances and approaches in resource use including water, energy, waste, land use, economics, oceans, and others. Introduces fundamental systems approaches to recognize interconnections and ramifications of practices. Identifies global sustainability issues and uses Hawai'i and island case studies as a means of better understanding their applied relevance.

SSM 110 - Sustainable Water and Waste Management

Credits: 3

Class hours: 3 lecture

Prereq: Qualified for ENG 23 (Note: For the Fall 2016 only, ENG 97). "C" or higher in MATH 75X or MATH 82X.

Recommended: ENG 100

Description: This course explores water, wastewater, and waste management challenges and solutions, with an emphasis regarding issues specific to Hawai'i. It also examines the sustainable operational management of water, wastewater, and waste systems.

SSM 201 – Sustainable Building Design, Construction, and Operations

Credits: 3

Class hours: 3 lecture

Prereq: "C" or higher in SSM 101 and ENRG 101.

Description: This course introduces principles of green building design and operations, including site planning and zoning, construction practices, energy efficiency, economics of green building, benefits and barriers, and the LEED rating system.

SSM 275 - Basic Energy Production (DP)

Credits: 3

Class hours: 3 lecture

Prereq: "C" or higher or concurrent enrollment in ENG 100 and SSM 101. Qualified for MATH 82X or higher or approval of instructor.

Description: This course will review basic energy concepts including gravitational and kinetic energy, heat, electromagnetism, chemical, etc. and the transducers used to convert from one form of energy to another. Concepts of the electric power grid will be covered and will transition to integrating renewable energy sources.

THEATRE **(THEA)**

THEA 101 - Introduction to Theatre (DA)

Credits: 3

Class hours: 2 lecture and 3 lab

Comments: Credit by exam is not an available option.

Description: This course surveys major forms of Western and Asian theatrical performances. The lab emphasizes viewing performance videos. *F*

THEA 221 - Beginning Acting (DA)

Credits: 3

Class hours: 3 lecture

Comments: May be repeated for a maximum of 6 credits.

Description: This course is an introduction to acting. Students will practice a variety of individual and group exercises for developing stage performance techniques. *F, S*

THEA 222 - Acting II (DA)

Credits: 3

Class hours: 3 lecture

Prereq: "C" or higher in THEA 221 or equivalent training from another institution with approval of instructor.

Comments: This course is repeatable for a maximum of 6 credits.

Description: Students will conduct advanced work in improvisation and character development. Vocal and physical training is emphasized, particularly on scene work. Actors are expected to work together to present scenes to the class.

WELDING **(WELD)**

WELD 17 - Introduction to Welding

Credits: 2

Class hours: 1 lecture and 2 lecture/lab

Coreq: WELD 18

Description: Introduction to Oxy/Ace and basic arc welding procedures in the work place in accordance with American Welding Society (AWS) standards. This includes proper safety and handling of welding equipment.

WELD 18 - Shop Tools and Equipment

Credits: 1

Class hours: 1 lecture

Coreq: WELD 17

Description: This course will include instruction on basic hand tools. This course will also introduce proper handling of shop tools and equipment.

WELD 20 - Intermediate Welding I

Credits: 2

Class hours: 1 lecture and 2 lecture/lab

Prereq: "C" or higher in WELD 17 and WELD 18.

Coreq: WELD 66

Comments: May be repeated for a maximum of 4 credits.

Description: This course covers intermediate arc welding procedures, including the safe and proper use of shop equipment, tools, and materials. Students will learn weld symbols and structure. This course is also an introduction to Gas Metal Arc Welding (GMAW) or MIG welding.

WELD 41 - Advanced Welding I

Credits: 3

Class hours: 2 lecture and 2 lecture/lab

Prereq: "C" or higher in WELD 20 and WELD 66.

Comments: May be repeated for a maximum of 6 credits.

Description: This course covers introduction to safe practices, setup, and operation of Gas Tungsten Arc Welding (GTAW) equipment. Our students will use GTAW in steel and aluminum, sheet metal and mild steel plate in flat, butt, and tee positions. We will also cover out of position welding using GTAW or MIG in vertical and overhead positions. Emphasis will be on practice and production of assemblies and coupons to be examined and tested according to Section 8 AWS SENSE QC10.

WELD 66 - Plasma and Air Carbon Arc Cutting

Credits: 1

Class hours: 1 lecture

Prereq: "C" or higher in WELD 17 and WELD 18.

Coreq: WELD 20

Description: This course introduces plasma-arc cutting systems to students. These topics include safety, proper equipment setup, and operation of plasma and carbon air arc gouging equipment with emphasis on straight line, curve, and bevel cutting.

WELD 99V - Special Studies

See explanation under the heading of Special Studies.

ZOOLOGY (ZOO)

ZOOL 101 - Principles of Zoology (DB)

Credits: 3

Class hours: 3 lecture

Recommended: Concurrent enrollment in ZOOL 101L.

Description: A general survey of the basic principles of animal biology to include a study of animal classification, structure, development, physiology, reproduction, evolution, behavior, and ecology. *F*

ZOOL 101L - Principles of Zoology Laboratory (DY)

Credits: 1

Class hours: 3 lab

Prereq: "C" or higher in or concurrent enrollment in ZOOL 101.

Description: A general survey lab of the basic principles of animal biology to include a study of animal classification, structure, development, physiology, reproduction, evolution, behavior, and ecology. *F*

ZOOL 105 - Hawaiian Ethnzoology

Credits: 3

Class hours: 3 lecture

Recommended: High school biology.

Description: This course is a study of fish and aquatic invertebrates and other fauna used traditionally by Native Hawaiians. The class will examine the role of fauna in traditional Hawaiian culture and resource utilization and management.

ZOOL 141 - Human Anatomy and Physiology I (DB)

Credits: 3

Class hours: 3 lecture

Prereq: Qualified for ENG 100. "C" or higher in CHEM 151 and CHEM 151L or CHEM 161 and CHEM 161L or 2 years of high school science within the last 5 years, including 1 year of high school college-prep chemistry with a "B" or higher and 1 year of college-prep biological science with a "B" or higher.

Coreq: ZOOL 141L

Description: This course is a comprehensive introduction to the structure and function of the human body for students entering health or medically-related fields. This basic course includes a study of the body's embryology, gross anatomy, microanatomy, physiology, homeostatic relationships, and the use of anatomy and physiology terms and concepts to develop thinking, reading and writing skills, and problem-solving abilities. The integumentary, skeletal, muscular, and nervous systems are studied. *F, S*

ZOOL 141L - Human Anatomy and Physiology Laboratory I (DY)

Credits: 1

Class hours: 3 lab

Prereq: Qualified for ENG 100. "C" or higher in CHEM 151 and CHEM 151L or CHEM 161 and CHEM 161L or 2 years of high school science within the last 5 years, including 1 year of high school college-prep chemistry with a "B" or higher and 1 year of college-prep biological science with a "B" or higher.

Coreq: ZOOL 141

Description: This course is intended to complement the material presented in the ZOOL 141 lectures by giving hands-on experience with anatomical models, organ and whole-animal dissections, physiological and biochemical experiments, and microscopic slides dealing with the following systems: integumentary, skeletal, muscular, and nervous. *F, S*

ZOOL 142 - Human Anatomy and Physiology II (DB)

Credits: 3

Class hours: 3 lecture

Prereq: "C" or higher in ZOOL 141 and ZOOL 141L.

Coreq: ZOOL 142L

Description: This course is the second half of a comprehensive introduction to the structure and function of the human body (endocrine, cardiovascular, lymphatic, respiratory, digestive, urinary, and reproductive systems), and use of anatomy and physiology terminology and concepts. This course will also develop thinking, reading and writing skills, and problem-solving abilities for students entering health or medically-related fields. *F, S*

ZOOL 142L - Human Anatomy and Physiology Laboratory II (DY)

Credits: 1

Class hours: 3 lab

Prereq: "C" or higher in ZOOL 141 and ZOOL 141L.

Coreq: ZOOL 142

Description: This course is intended to complement the material presented in the ZOOL 142 lectures by giving hands-on experience with anatomical models, organ and whole-animal dissections, physiological and biochemical experiments, and microscopic slides dealing with the following systems: endocrine, cardiovascular, respiratory, digestive, urinary, and reproductive. *F, S*