Course Descriptions

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Courses of Instruction
This section lists courses of instruction alphabetically by subject.

Writing Intensive Courses
The College offers a series of writing intensive courses in which students engage in formal and informal writing assignments totaling a minimum of 4,000 words. Students strengthen writing skills as well as learn course content and understand how to apply what they learn through writing. Students also satisfy degree requirements at the College (two required for the AA degree), and at UH Mānoa (a minimum of five writing-intensive classes required). The Schedule of Classes designates writing intensive courses by WI in the course title (e.g., HIST 284 WI-Hawaiian History).

Course Credit
One credit is assigned to a course for one or more hours per week of class time during a typical 15-week semester. This time may be assigned to lecture, discussion, or lab instruction.

The credit value of each course is indicated by a number at the end of each course description. For example, “3cr.” indicates the course carries three credits; “3,3” indicates each module “BC” of the course carries three units of credit.

Following the credits is a number indicating the contact hours per week of lecture, discussion, or laboratory (e.g., “3hr. lect.” means the course meets three hours per week in a lecture format). Course modules indicate “in-class” minimums (e.g., 15hr. lect. per semester).

Methods of Instruction
The College presents courses in a variety of modes, including traditional classroom settings. The Individualized Study mode allows students to study independently with the assistance of an instructor. Developmental math courses are offered on computers using MyMathLab. Internet classes are those where course materials and assignments are presented over the World Wide Web. Televised courses are offered in several ways. The Hawai‘i Interactive Television System (HITS) offers live interaction among classrooms in Hana, Kahului, Kihei, Lahaina, Lana‘i, Molokai, and throughout the state. Cable courses are broadcast over the college channel to cable subscribers. The Schedule of Classes designates these classes.

Laulima
Laulima is the online portion of courses offered through the University of Hawai‘i system. Many instructors require the use of Laulima. It is accessed by computer using the internet.

Log in at: laulima.hawaii.edu

Terminology: Prereq, Coreq, Recommended, Consent
Prerequisite (Prereq): Course that must be satisfactorily completed or competency that must be met before the student can enroll in the desired course.
Corequisite (Coreq): Course that the student must take concurrently with the desired course.
Recommended: Course or competency that will help the student succeed in the desired course.
Consent: Term used in a prerequisite, meaning consent to enter the course must be given by the instructor, department chair, program coordinator, or other authorized designee.

Banner Prerequisite Checking
The Banner computer registration system checks transcripts to assess whether students have met the prerequisite course, grade, or score. Banner allows students to register for a course only when their transcript shows a prerequisite is met.

There are several exemptions: prerequisites in progress; prerequisites completed at an institution outside the UH Community College system (see a counselor about transferring prerequisites that were completed outside the system into the College Banner database); or petitioning an exemption through Consent of Instructor. Students without the published prerequisite cannot register for the course using the MyUH online registration.

All non-UH system courses must be transferred, articulated, and input into the Banner system before electronic checks can occur.

See a counselor regarding transcript evaluations, or call for an appointment at 984-3306.

Numbering System
Courses generally not transferable to four-year colleges but transferrable within the UHCC System..........................10-99

Lower Division Courses
Transfer level courses normally taken by freshmen......................100-199
Transfer level courses normally taken by sophomores, open to qualified freshmen ..................200-299

Upper Division Courses
Junior ........................................300-399
Senior.................................400-499

Codes for UH System-wide Foundations and Diversifications Designations
The following codes are used UH System-wide to provide articulation designations for courses.

DA Diversification Arts
DH Diversification Humanities
DL Diversification Literatures
DB Diversification Biological Science
DP Diversification Physical Science
DS Diversification Social Sciences
DY Diversification Laboratory
FW Foundations Writing
FGA Foundations Global (Before 1500 CE)
FGB Foundations Global (Since 1500 CE)
FGC Foundations Global (Pre-history to present)
FS Foundations Symbolic
HSL Hawaiian Second Language

Codes for UHMC AA Degree Requirements
The following codes are category designations for AA Requirements (pages 13-14) and Course Descriptions (pages 90-142)

FW Foundations Writing
FGA Foundations Global (Before 1500 CE)
FGB Foundations Global (Since 1500 CE)
FGC Foundations Global (Pre-history to present)
FS Foundations Symbolic
FN Foundations Numeracy
FO Foundations Oral
FI Foundations Information Retrieval
IN Individual (Human Understanding)
CO Community (Human Understanding)
HE Human Expression
HSL Hawaiian Second Language
EA Environmental Awareness
EL Environmental Awareness Lab (course satisfies the Lab requirement)
AP Asia/Pacific requirement
HI Hawai‘i Emphasis requirement
Accounting (ACC)

D. Grooms, R. Klein, D. Meyer, J. Moore

124 Principles of Accounting I
Prereq: ENG 19 with grade C or better, or placement at least ENG 22 or 55, and MATH 18 with grade C or better or placement at least MATH 82, or consent.
Introduces basic accounting principles and practices for service and merchandising types of businesses. Areas include: accounting as an information system, the accounting system, the accounting cycle, financial statements and internal control, short-term liquid assets, inventories, and current liabilities and payroll. Special emphasis will be placed upon the practical application of accounting principles. 3cr., 3hr. lect.

125 Principles of Accounting II
Prereq: ACC 124, and MATH 18 with grade C or better, or placement at least MATH 82, or consent.
Continues the study of financial accounting procedures. Areas include: long-term assets, accounting for partnerships and corporations, statement of cash flows, financial statement analysis, in-depth study of specific balance sheet accounts. 3cr., 3hr. lect.

132 Payroll & Hawai’i General Excise Taxes
Prereq or coreq: ACC 124 or ACC 201, or consent.
Introduces principles, manual and computerized procedures, and terminology for business applications of payroll accounting. Includes preparation and filing of federal and Hawai’i state forms for payroll and the Hawai’i General Excise and Use Tax. 3cr., 3hr. lect.

134 Income Tax Preparation
Prereq: ENG 19 with grade C or better or placement at least ENG 22, or consent.
Introduces the preparation of federal and state of Hawai’i individual income tax returns with an emphasis on tax principles 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. 3cr., 3hr. lect.

137 Business Income Taxation
Prereq: ACC 134, or consent.
Studies federal and Hawai’i state income taxes with a brief review of personal income tax followed by in-depth study of self-employment, partnership, and corporate tax returns as well as withholding and estimated taxes. 3cr., 3hr. lect.

150 Using QuickBooks® in Accounting
Prereq: ACC 125 or 201 (either concurrent), or consent.
Provides hands-on training approach to computerized accounting using QuickBooks®. Applies previously acquired accounting skills and knowledge in a computerized environment to set up and maintain accounting records. Emphasis will be placed upon the application of QuickBooks® to the accounting cycle. 3cr., 3hr. lect.

201 Introduction to Financial Accounting
Prereq: ENG 22 with grade C or better, or placement at ENG 100, and MATH 82 either with grade C or better, or placement at least MATH 100, or consent.
Introduces accounting theory and methods used to record and report financial information. Analyzes methods of valuing assets, liabilities, and ownership of an organization. 3cr., 3hr. lect.

202 Introduction to Managerial Accounting
Prereq: ACC 124 and 125, or ACC 201, or consent.
Introduces methods for evaluating financial performance, including cost accounting, budget, break-even analysis, ratio analysis, and sources and uses of funds. 3cr., 3hr. lect.

255 Using Spreadsheets in Accounting
Prereq: ACC 202 (or concurrent), BUSN 150, or ICS 101, or consent.
Provides hands-on training in the use of spreadsheets on computers to solve accounting problems. Applies previously acquired accounting skills and knowledge. Emphasizes financial and managerial accounting. 3cr., 3hr. lect.

295 Accounting Capstone
Prereq: ACC 132, 134, 150, 255 (concurrent), and 202, or consent.
Provides an opportunity to demonstrate the tools and understanding developed during the accounting program. Includes financial, managerial, payroll accounting and income tax preparation. Includes the use of computers. Emphasizes the use of ethics in business decisions. (Letter grade only.) 3cr., 3hr. lect.

Administration of Justice (AJ)

R. Daniels

101 Introduction to Administration of Justice
Examines history and philosophy of the administration of justice in United States with overview of major sub-systems within the criminal justice system: law enforcement, courts, and corrections. Examines expectations and interrelationships of officials, theories of crime, punishment, and rehabilitation. Surveys career opportunities. 3cr., 3hr. lect.

103 Criminal Investigation
Prereq: AJ 101, or consent.
Introduces initial investigatory steps relating to crime scenes. Acquaints student with specific offenses and methods of obtaining information. 3cr., 3hr. lect.

104 Criminalistics
Prereq: AJ 103, or consent.
Emphasizes identification and reproduction of physical evidence. Studies specialized scientific methods and their relationship to court procedures. 3cr., 3hr. lect.
150 The Correctional Process
Introduces the field of corrections. Includes the history and philosophy of punishment and methods used to protect society and rehabilitate the offender. 3cr., 3hr. lect.

170 Introduction to Private Security
Surveys concepts and issues in the administration of security. Defines public vs. private security roles for retail business, industry, and governmental agencies. Provides an overview of the functions of various security activities. 3cr., 3hr. lect.

200 Principles of the Hawai’i Justice System
Prereq: ENG 22 or 55 with grade C or better, or placement at ENG 100, or consent.
Reviews criminal justice systems in the United States, with special emphasis on Hawai’i. Analyzes law enforcement and the judicial and corrections procedures from time of arrest until final disposition of the case. Studies federal and state laws and constitutional principles through legal research. 3cr., 3hr. lect.

210 Juvenile Justice
Prereq: AJ 101, and ENG 22 or 55 with grade C or better or placement at ENG 100, or consent.
Studies principles and procedures of arrest, detention, petition, summons, records and adjudication of juvenile offenders. Introduces organization and function of the police juvenile unit, community diversion practices, and organization of the Family Court. Reviews Hawai’i statutes and United States Supreme Court decisions affecting juvenile rights of due process. Considers societal context of juvenile problems, delinquency prevention, and treatment. (Crosslisted as SOC 231) 3cr., 3hr. lect. (CO)

221 Criminal Law
Prereq: ENG 22 or 55 with grade C or better, or placement at ENG 100, or consent.
Studies history and philosophy of criminal law. Examines United States Constitution, especially the Bill of Rights. Considers nature of law, legal institutions, criminal court procedures, offenses against persons and property. Includes case briefs. 3cr., 3hr. lect.

223 Laws of Arrest, Search, Seizure
Prereq: ENG 22 or 55 with grade C or better, or placement at ENG 100, or consent.
Analyzes statutes and cases pertaining to the problems and procedures in effecting valid arrests, searches, and seizures. Considers Hawai’i Supreme Court decisions and controlling opinions of the United States Supreme Court. 3cr., 3hr. lect.

224 Rules of Evidence
Considers origin, development, philosophy, kinds and degrees of evidence. Surveys pertinent federal constitutional amendments, landmark Supreme Court decisions affecting the admissibility of evidence, and changes in Federal and Hawai’i case law. Case briefs. 3cr., 3hr. lect.

226 Economic Crimes
Prereq: ENG 22 or 55 with grade C or better, or placement at ENG 100, or consent.
Provides information about major economic crimes such as embezzlement, computer crime, and others. Discusses investigative techniques relating to each of the major economic crimes. 3cr., 3hr. lect.

230 Principles of Police Supervision
Prereq: ENG 22 or 55 with grade C or better, or placement at ENG 100, or consent.
Analyzes supervisor’s function and principles of organization and personnel management. Stresses communication, training, disciplines, psychology of supervision, essentials of leadership, promotion methods, and selection of supervisors. 3cr., 3hr. lect.

231 Stress in Policing
Surveys major sources of stress in police work and effects of stress on the officer. Considers stress management programs. 3cr., 3hr. lect.

232 Officer Survival
Emphasizes positive tactics police officers can employ to effectively use their own firearms to defeat those of assailants. Teaches techniques that work for survival in real-life situations. 3cr., 3hr. lect.

234 Police-Community Relations
Prereq: ENG 22 or 55 with grade C or better, or placement at ENG 100, or consent.
Examines philosophies and styles of policing. Encourages effort of the police and community to share in the common goal of understanding mutual problems. 3cr., 3hr. lect.

240 Hawaiian Cultural & Natural Resources Management
Prereq: ENG 22 or 55 with grade C or better, or placement at ENG 100, or consent.
Recommended: AJ 101, and COM 145, COM130/BUS 130, or SP 151.
Provides a background for onsite management of Native Hawaiian cultural and natural resources. Relates traditional Native Hawaiian resource conservation practices to current governmental policies, rules, and regulations. Introduces duties and responsibilities of conservation and resource enforcement officers. 3cr., 3hr. lect.
250 Community Based Corrections
Prereq: ENG 22 or 55 with grade C or better, or placement at ENG 100, or consent.
Exposes juvenile and adult probation, after-care parole, halfway houses, work and educational release-furlough. Examines dilemma of custody-control vs. supervision-treatment. Investigates citizen-agency relationships, along with potentials for utilizing citizen volunteers in corrections. 3cr., 3hr. lect.

270 Principles of Loss Prevention
Prereq: ENG 22 or 55 with grade C or better, or placement at ENG 100, or consent.
Considers various theories of managing security countermeasures. Acquaints students with loss prevention measures for retail businesses, government agencies, hotels and motels, hospitals, schools, and other organizations. 3cr., 3hr. lect.

293V Administration of Justice Internship
Prereq: AJ 101 with grade C or better, or consent.
Offers flexible, customized, supervised school-to-work experiences in all aspects of the administration of justice field. Integrates and applies classroom theory to work situations via field experiences. Student must complete a minimum of 75 hours per credit per semester. (Note: 3 credits required for AAS degree. Student may take up to 6 additional credits.) 1-3cr., 75hrs./cr.

Agriculture (AG)
J. Boswell, A. Emmsley

92 Selected Topics in Agriculture
O Landscape Plant Selection-Care
P Pesticides & Safety
Q Interiorscapes
R Tropical Fruit & Nuts
S Organic Gardening
T Plant Breeding
U Open Topic
Meets local interests in agriculture. Varies specific content for each topic to match job site or geographical needs and conditions. Credit in topics O and U are not applicable toward a degree in agriculture. Credit in topics P, Q, R, S, and T may be used for elective credit only. (AG 92U may be repeated without limit for credit.) 1cr., 1hr. lect./lab

101 Home Gardening
Introduces ornamental and vegetable gardening for the home gardener. Includes landscape installation and maintenance. Intended for non-majors. 3cr., 4hr. lect./lab

122 Soils Technology
Recommended: Placement at least ENG 22, and MATH 18 with grade C or better or placement at least MATH 82, or consent.
Studies identification, preparation, and fertilization of soils; amendments, sterilization, mulching, and composting methods. Includes soil testing, microbiology, and soil moisture. Emphasizes sustainable management systems. 3cr., 2hr. lect./2hr. lab (EA, EL, DB, DY)

174 Insects & Their Control
Recommended: Placement at least ENG 22, and MATH 18 with grade C or better or placement at least MATH 82, or consent.
Introduces basic morphology and classification of insects. Studies destructive and beneficial insects. Covers principles of cultural, mechanical, legislative, biological, and chemical control. Investigates sustainability of control methods. 3cr., 2hr. lect./2hr. lab (EA, DB, DY)

194V Turfgrass Work Practicum
Prereq: AG 233 and Agriculture major and consent. Recommended: AG 260.
Provides supervised work experience in turfgrass management. Students are actively involved in all phases of turfgrass maintenance. Daily work log, confirmed by supervisor, and periodic scheduled meetings with instructor are required. (May be repeated for a maximum of 3 credits.) 1-3cr., 5-15hr. lab

200 Principles of Horticulture
Introduces botany and plant physiology. Discusses plant nutrient, moisture, and environmental requirements. Treats plant propagation. Studies culture and production techniques for selected ornamental crops. 4cr., 3hr. lect./2hr. lab (EA, EL, DB, DY)

201 Introduction to Plant Disease
Recommended: Placement at least ENG 22, and MATH 18 with grade C or better or placement at least MATH 82, or consent.
Introduces classification, morphology, and biology of fungi, bacteria, viruses, and nematodes that attack economic crops. Covers diagnosis and control of plant diseases. Investigates sustainability of control methods. 3cr., 2hr. lect./2hr. lab

230 Agricultural Business Management
Recommended: Placement at least ENG 22, and MATH 18 with grade C or better or placement at least MATH 82, or consent.
Introduces farm and landscape management practices including decision making, record keeping, cash flow, financial statements, ratio analysis, use of computers as a management tool, and marketing of agricultural products and services. 3cr., 3hr. lect.

232 Farm Tractor & Equipment Operation
Prereq: Consent.
Teaches operation of a rototiller and wheel type tractor with allied implements on the College farm. Includes safety, maintenance, three point hitch hookups, hydraulics, and field adjustments. 1cr., 3hr. lab

233 Turfgrass Equipment, Operation & Maintenance
Prereq: Turfgrass Specialist Certificate, or consent.
Teaches the operation and maintenance of greens mower, aerator, fairway mower, sprayer, and other turf maintenance equipment. Includes safety. 2cr., 3hr. lect./lab

235 Irrigation Principles & Design
Recommended: Placement at least ENG 22, and MATH 18 with grade C or better or placement at least MATH 82, or consent.
Teaches types of irrigation systems including materials, equipment, design, and installation. Discusses evapotranspiration and soil moisture relations. 3cr., 2hr. lect./2hr. lab

250 Tropical Landscape Horticulture
Recommended: Placement at least ENG 22, and MATH 18 with grade C or better or placement at least MATH 82, or consent.
Introduces design, construction, installation, care, and maintenance of landscapes. Requires a landscaping project, drawn and installed. 4cr., 2hr. lect./4hr. lab
251 Sustainable Crop Production
Recommended: Placement at least ENG 22, and MATH 18 with grade C or better or placement at least MATH 82, or consent.
Introduces production methods for selected crops including propagation, planting, fertilization, irrigation, pest control, harvesting, and marketing. Evaluates conventional and alternative methods of production and analyzes effects of these practices. Examines economic and social impacts. Field trips to production areas. 4cr., 2hr. lect./6hr. lab

260 Turfgrass Management
Recommended: Placement at ENG 100, and MATH 18 with grade C or better or placement at least MATH 82, or consent.
Studies identification, planting, and maintenance of turfgrasses for home, park, and golf areas. Discusses watering and fertilizing. Treats insect, disease, and weed control. 3cr., 2hr. lect./2hr. lab

263 Flower & Foliage Crop Production
Prereq: AG 200, or consent.
Recommended: AG 266.
Introduces production of cut flowers and foliage, and flowering pot plants, under field and protected cultivation in Hawai‘i. 3cr., 2hr. lect./2hr. lab

264 Plant Propagation
Prereq: AG 200, or consent.
Introduces theoretical and applied aspects of sexual and asexual reproduction of plants. Propagation of selected plants by seed, cuttings, grafting, budding, layering, and division. 3cr., 2hr. lect./2hr. lab

265 Horticulture of Hawaiian Plants
Prereq: BOT 105 with grade C or better, or consent. Recommended: AG 200.
Explores the biology, ecology, and adaptations of plants focusing on endemic and indigenous Hawaiian and Polynesian introduced. Teaches techniques of horticulture including propagation, cultivation, and management. Introduces uses of the plants in landscaping and native habitat restoration projects. 4cr., 6hr. lect./lab (EA, EL, HI, DB, DY)

266 Greenhouse & Nursery Management
Recommended: Placement at least ENG 22, and MATH 18 with grade C or better or placement at least MATH 82, or consent.
Introduces management practices for production and operation of nurseries and greenhouses in Hawai‘i. Includes environmental factors, structures, materials, sanitation, pests, and diseases. 3cr., 2hr. lect./2hr. lab

269 Ornamental Plant Materials
Presents identification, use, propagation, and cultural requirements of trees, shrubs, vines, and ground covers used in Hawaiian landscapes. 3cr., 2hr. lect./2hr. lab

281 Weed Science
Recommended: Placement at least ENG 22, and MATH 18 with grade C or better or placement at least MATH 82, or consent.
Teaches weed classification, identification, ecology, and principles of weed control. Emphasizes properties, uses, action, and safety of herbicides and pesticides. 3cr., 2hr. lect./2hr. lab

290 Agricultural Enterprise
Prereq: AG 230, AG 232 or equivalent, AG 251, and consent for sustainable crops; AG 230, AG 200, and consent for ornamental crops.
Offers selection, management, and production of an agricultural project under faculty supervision. Requires three hours per week with faculty supervisor and additional time to grow a crop from soil or medium preparation. Student markets crop and maintains farming and financial records. (May be repeated for a maximum of 3 credits.) 1cr., 3hr. lab

Anthropology (ANTH)

K. Fletcher

150 Human Adaptation
Studies human evolution. Examines prehistoric and recent developments of culture and common features and principle variations in cultural behavior. 3cr., 3hr. lect. (DS)

165 Heritage Sites in Archaeology
Prereq: ENG 100 with grade C or better, or consent.
Introduces the concepts and practices of archeology, historical research, historic site preservation, and heritage management. Combines lecture, laboratory, and fieldwork. 3cr., 3hr. lect. (EA, HI, DS)

200 Cultural Anthropology
Prereq: ENG 22 with grade C or better, or placement at ENG 100, or consent.
Studies the concept of culture and basic tools for analyzing cultural behavior. Topics include patterning and integration, dynamics of culture, culture and the individual, cultural change, and anthropology and the future. 3cr., 3hr. lect. (CO, DS)

210 Archaeology
Recommended: ANTH 150, 200, or 215.
Introduces prehistoric archeology. Surveys cultural growth in prehistoric times.
Expects methods and techniques of excavation and laboratory analysis. 3cr., 3hr. lect.  

210L Archaeology Laboratory  
Prereq: ANTH 210 with grade C or better (or concurrent), or consent.  
Teaches methods and techniques of archaeological excavation. Uses laboratory techniques to analyze data. 1cr., 3hr. lab  (EA, EL)  

215 Physical Anthropology  
Prereq: ENG 22 with grade C or better, or placement at ENG 100, or consent.  
Introduces students to the study of human biological make-up, origins of that make-up, and the pre-history of human biological and cultural development. 3cr., 3hr. lect.  (EA, IN, DB)  

235 Peoples of the Pacific  
Prereq: ENG 22 with grade C or better, or placement at ENG 100, or consent.  
Surveys the cultural areas of the Pacific from pre-contact to present day. Covers prehistoric migrational patterns, historical movements, and present day distributions, including western colonization and current problems. (Crosslisted as HIST 288.) 3cr., 3hr. lect.  (AP, CO, DH)  

281 Archaeological Field Techniques  
Prereq: ANTH 210 with grade C or better, or placement at ENG 100, or consent.  
Applies archaeological techniques including survey, excavation, mapping, and photography. Will be taught entirely in the field at an archaeological site. 4cr., 7hr. lect./lab  (CO)  

Architectural Engineering & CAD Tech (AEC)  
C. Atay  

80 Basic Drafting  
Recommended: ICS 101 or BUSN 150, and placement at ENG 100, or consent.  
Provides basic instruction in blueprint reading and drafting. Covers manual drafting procedures and practices with an introduction to computer-aided drafting. Serves students preparing to be public school industrial arts teachers and those interested in a background in technical drawing. 3cr., 1hr. lect./4hr. lab  

110 Basic AutoCAD  
Prereq: AEC 80 or BLPR 22, or equivalent training/experience with consent.  
Recommended: ICS 101 or BUSN 150, and placement at ENG 100.  
Introduces the foundations of AutoCAD. Covers basic commands and operations from 2D drawing and editing to creating solid models and rendering. Teaches 2D drawing, text, dimensions, blocks, hatching, reference files, sharing data, 3D drawing, and plotting. Prepares students for Autodesk certification. 4cr., 2hr. lect./4hr. lab  

114 Architectural Graphics  
Recommended: ICS 101 or BUSN 150, and placement at ENG 100, or consent.  
Introduces solid and spatial representation including: (a) orthographic and axonometric drawing, descriptive geometry, and shadow casting; (b) axonometric modeling, perspective modeling, and overlay drawings with entourage; (c) freehand drawing. 3cr., 1hr. lect./4hr. lab  (HE)  

118 Construction Materials  
Recommended: ICS 101 or BUSN 150, and placement at ENG 100, or consent.  
Provides a broad survey of materials and products used in the building industry, their nature, characteristics, variety, and uses. Includes concrete, masonry, wood, metals, conveying systems, electrical and mechanical systems, and other topics based on the CSI format. Emphasizes materials and construction in Hawai’i. 3cr., 3hr. lect.  

120 Introduction to Construction Drawing  
Prereq: AEC 110 and 118  
Provides a drafting course in basic building construction and common construction drawings. Covers foundations, framing, doors and windows, cornices, roofs, architectural dimensions, materials, symbols, drawing conventions, and construction conceptualization. 3cr., 1hr. lect./4hr. lab  

123 Residential Planning & Design  
Prereq: AEC 110 and 118, or consent.  
Provides experience in the fundamentals of development and presentation of preliminary board designs. Covers architectural design concepts and principles, application of AutoCAD and ArchiCAD study models, rendering, and group and juried presentations. 3cr., 1hr. lect./4hr. lab  

124 Advanced Graphics  
Prereq: AEC 114, or consent.  
Provides experience in developing a modeling/drafting project entirely on the computer using the three-dimensional tools of CAD. Includes architectural models, rendering, and animation to create photo realistic computer images of buildings, components, and project sites. 3cr., 1hr. lect./4hr. lab  

Art (ART)  
J. Owen, M. Takemoto  

101 Introduction to the Visual Arts  
Introduces the basic elements of visual arts and their expressions in various forms. Meets the UH Mānoa Arts & Science core requirement. 3cr., 3hr. lect.  (CO, HE, DA)  

105 Elementary Studio: Ceramics  
Studies ceramic form. Emphasizes hand building, glazing techniques, and surface treatment. Involves lectures and projects. Meets the UH Mānoa Arts & Science core requirement. 3cr., 2hr. lect./4hr. lab  (HE, DA)  

113 Introduction to Drawing  
Emphasizes two-dimensional visualization and rendering of forms, spaces, and ideas through a variety of approaches and media. Meets the UH Mānoa Arts & Science core requirement. 3cr., 6hr. lect./lab  (HE, DA)
115 Introduction to 2D Design
Recommended: ART 101
Introduces the theory and practice of composing and arranging two-dimensional forms in black, white, and color through manipulation of the basic elements and their interrelationships. Meets the UH Mānoa Arts & Science core requirements. 3cr., 2hr. lect./4hr. lab (HE, DA)

123B Introduction to Water Color Painting
Introduces the theory and practice of watercolor painting. Includes basic materials and technical procedures. 1cr., 2hr. lect./lab (HE, DA)

123C Introduction to Oil Painting
Introduces the theory and practice of oil painting. Includes basic materials and technical procedures. 1cr., 2hr. lect./lab (HE, DA)

123D Introduction to Acrylic Painting
Introduces the theory and practice of acrylic painting. Includes basic materials and technical procedures. 1cr., 2hr. lect./lab (HE, DA)

161 Introduction to Computer Graphics
Prereq or coreq: ICS 101 or BUSN 150, or consent.
Introduces computer graphics tools and concepts in digital image editing, illustration graphics, print publishing, web authoring, and 2D and 3D animation. (Crosslisted as ICS 261.) 3cr., 3hr. lect. (HE, DA)

170 History of Western Art
Surveys Western Art from prehistoric to modern times. Emphasizes the historical aspects of art including an overview of each historical period. Meets UH Mānoa Arts and Science core requirement. 3cr., 3hr. lect. (CO, DH)

205 Photoshop and Illustrator
Prereq: ICS 101 or BUSN 150, or consent.
Introduces the basic tools and features of digital image editing, photo retouching, and color correction of images. Focuses on the fundamental drawing techniques of illustration graphics including pen tool paths, objects, and type. (Crosslisted as ICS 205.) 3cr., 3hr. lect./lab (HE, DA)

218 Intermediate Computer Graphics
Prereq: ICS 161, 205, or 214, or consent.
Provides instruction with the tools and concepts of computer graphics utilizing editing, illustration graphics, print publishing, web authoring, and 2D and 3D animation. (Crosslisted as ICS 261.) 3cr., 3hr. lect./lab (HE, DA)

221 Fundamentals of Design for Print and Web
Prereq: ICS 101 or BUSN 150, or consent.
Introduces development principles related to graphic design terminology, tools and media, and layout and design concepts. Topics include integration of type, images, and other design elements, developing computer skills in industry standard computer programs, and study of design development pertaining to color theories, publications, and advertising. Projects emphasize relating form to content through selection, creation and integration of typographic, digital imaging, illustrative and design elements in print and web environments. (Crosslisted as ICS 214.) 3cr., 3hr. lect./lab (HE, DA)

223 Intermediate Painting
Prereq: ART 113, 123BCD, or consent.
Practices the development of painting skills following the chronological progression of Western Modernism. Explores painting work by studying the foundations of major developments in the late 19th century and early 20th century painting styles. Examines and compares the two parallel tendencies of Structuralism and Expressionism. Teaches control and management of pictorial space and paint application. Develops personal sources of imagery, and explores the effects of scale and color interaction in personal work. 3cr., 6hr. lect./lab (HE, DA)

243 Intermediate Ceramics: Hand Building
Prereq: ART 105, or consent.
Develops vessel and sculptural concepts using hand-building techniques. Introduces the elements of art through the making of ceramic form. Progresses beyond basic hand building techniques to advanced skills: various forming and embellishing techniques, work with plaster and molds, colored slip, colored clay, glaze work, and the firing of kilns. Students work towards development of individual creative expression. 3cr., 2hr. lect./4hr. lab (HE, DA)

244 Intermediate Ceramics: Wheel Throwing
Prereq: ART 105, or consent.
Develops vessel and sculptural concepts using wheel-throwing techniques. Introduces the elements of art through the making of ceramic form. Progresses beyond basic throwing techniques to intermediate throwing skills, various forming and embellishing techniques both on the wheel and subsequent to throwing, colored slip work, glaze work, and the firing of kilns. Students work towards development of individual creative expression. 3cr., 2hr. lect./4hr. lab (HE, DA)
Astronomy (ASTR)

J. Pye

110 Survey of Astronomy
Prereq: ENG 22 or 55 with grade C or better or placement at ENG 100, and MATH 18 either with grade C or better, or placement at least MATH 82, or consent.
Recommended Prep: High School Science
Introduces the history and methods of astronomy, with descriptive treatments of planets, the solar system, stars, galaxies, and cosmology. Discusses the concepts of size, distance, and time in the observable universe. 3cr., 3hr. lect. (EA, DP)

110L Observational Astronomy Laboratory
Prereq: ASTR 110 with grade C or better (or concurrent), and MATH 82 or higher with grade C or better, or placement at least MATH 100. Recommended: ICS 101 or equivalent.
Introduces instrumentation and methods used in astronomical observations and research. Demonstrates astronomical principles through laboratory observations and analysis of astronomical data, and provides experience using instrumentation and software for observations, data collection and analysis, and image processing. 1cr., 3hrs. lab (EA, EL, DY)

Auto Body Repair & Painting (ABRP)

D. Tanga

20E Basic Auto Body
Introduces basic auto body skills and procedures. Covers the proper and safe handling of hand and power tools and materials used in the auto body industry. 2cr., 4hr. lect./lab

20F Basic Metal Work
Prereq: ABRP 20E, or consent.
Presents sheet metal repair using the oxy-acetylene torch, MIG (GMAW) welding, and the resistance panel spot welder. Covers the use, maintenance, and safety of the specialized hand and power tools of this repair process. 2cr., 4hr. lect./lab

20G Auto Sheet Metal
Prereq: ABRP 20F, or consent.
Explains the theory and principle of the basic skills required for automotive sheet metal panel repair. Introduces picking and filing, shrinking of damaged sheet metal, and corrosion repair. 2cr., 4hr. lect./lab

20H Body & Fender
Prereq: ABRP 20G, or consent.
Explains principles of auto body repair skills in roughing, dinging, fender and panel repair, and the finishing procedures to complete the body and fender repair process. 2cr., 4hr. lect./lab

20I Auto Body Repair Practicum
Prereq: ABRP 20G, or consent.
Applies exercises in repair methods and procedures discussed in ABRP 20EFGH on live jobs. 2cr., 4hr. lect./lab

22E Basic Auto Refinishing
Presents the basics of automotive refinishing. Emphasizes shop and personal safety in using hand tools, power tools, supplies, and materials for vehicle preparation for painting. 2cr., 4hr. lect./lab

22F Refinish Equipment & Techniques
Prereq: ABRP 22E, or consent.
Introduces safety, proper operation, and maintenance of the tools and equipment used for automotive refinishing. Covers surface preparation and the proper procedures of undercoat applications. 2cr., 4hr. lect./lab

22G Complete Refinishing Techniques
Prereq: ABRP 22F, or consent.
Explains the complete painting process. Covers preparation and application of sealers to surface, to the final detailing of the vehicle. 2cr., 4hr. lect./lab

22H Touch-Up Refinishing Techniques
Prereq: ABRP 22G, or consent.
Introduces vehicle preparation and various techniques for touch up refinishing. 2cr., 4hr. lect./lab

22I Refinishing Practicum
Prereq: ABRP 22H, or consent.
Applies the refinishing procedures and skills acquired in ABRP 22EFGH on live jobs. 2cr., 4hr. lect./lab

40E Automotive Trim and Glass
Prereq: ABRP 20EFGHI and ABRP 22EFGH, or consent.
Introduces the servicing, removing, and replacing of automotive hardware, interior and exterior trim, fixed and movable glass, and upholstery. 2cr., 4hr. lect./lab

40F Dimensioning Collision Damage
Prereq: ABRP 40E, or consent.
Explains methods to determine collision damages to the automotive chassis and suspension components for conventional framed and unitized vehicles. 2cr., 4hr. lect./lab

40G Frame Alignment & Repair
Prereq: ABRP 40F, or consent.
Analyzes corrective procedures in aligning conventional framed and unitized constructed vehicles. 2cr., 4hr. lect./lab

40H Structural Sectioning
Prereq: ABRP 40G, or consent.
Presents theory and practice of structural sectioning of conventional framed and unitized constructed vehicles. 2cr., 4hr. lect./lab

41E Minor Collision Repair
Prereq: ABRP 40E, or consent.
Explains the repairing of minor collision damage to automotive sheet metal. 2cr., 4hr. lect./lab

41F Mechanical Systems
Prereq: ABRP 41E, or consent.
Introduces trouble shooting of automotive cooling system, air conditioning, and electrical systems during vehicle repair. 2cr., 4hr. lect./lab

41G Plastic Panel Repair
Prereq: ABRP 41F, or consent.
Introduces the repairing of damaged plastic and fiberglass panels and components. 2cr., 4hr. lect./lab

41H Management & Estimating
Prereq: ABRP 41G, or consent.
Introduces the student to the fundamentals of writing and understanding repair estimates and repair orders. Discusses management, business procedures, and
industrial relations. 2cr., 4hr. lect./lab

41I Minor Repairs Practicum
Prereq: ABRP 41H, or consent.
Applies exercises in repair methods and procedures discussed in ABRP 41EFGH on live jobs. 2cr., 4hr. lect./lab

44E Advanced Major Collision
Prereq: ABRP 41EFGH, or consent.
Applies specialized techniques in major collision repair on live jobs. 2cr., 4hr. lect./lab

44F Advanced Minor Collision
Prereq: ABRP 41EFGH, or consent.
Applies specialized techniques in minor collision repair on live jobs. 2cr., 4hr. lect./lab

44G Advanced Complete Refinishing
Prereq: ABRP 41EFGH, or consent.
Applies specialized techniques in complete automotive refinishing on live jobs. 2cr., 4hr. lect./lab

44H Advanced Touch-Up Refinishing
Prereq: ABRP 41EFGH, or consent.
Applies specialized techniques in automotive touch-up refinishing on live jobs. 2cr., 4hr. lect./lab

44I Advanced Management and Estimating
Prereq: ABRP 41EFGH, or consent.
Analyzes problem solving in body shop management. Develops special estimating skills on live jobs. 2cr., 4hr. lect./lab

Automotive Technology (AMT)

T. Hussey, K. Takushi

16 Car Care
Prereq: Student must maintain a valid Driver's license throughout duration of the automotive course of studies.
Explores auto mechanics for non-majors with primary emphasis on preventive maintenance service and minor repairs. 2cr., 3hr. lect./lab

20 Introduction to Auto Mechanics
Prereq: Student must maintain a valid Driver’s license throughout duration of the automotive course of studies; or consent. Recommended Preparation: Placement at ENG 21 or higher.
Introduces principles for the operation of automotive systems. Explains the selection and use of basic automotive tools, equipment, and procedures for the preventive maintenance and minor repair service. Includes lectures, demonstrations, and lab work on shop training units and “live” service vehicles. 2cr., 4hr. lect./lab

30 Engines
Prereq: ENG 19 with grade C or better, or placement at least ENG 22, or consent. Student must maintain a valid Driver’s license throughout duration of the automotive course of studies.
Recommended: At least 10th grade reading skill.
Examines principles of operation, diagnosis, service, and repair of modern internal-combustion gasoline engine. Explains use of automotive tools and testing equipment. Applies concepts to live engine projects. 6cr., 12hr. lect./lab

30F Intermediate Engines
Prereq: ENG 19 with grade C or better, or placement at least ENG 22, or consent. Student must maintain a valid Driver’s license throughout duration of the automotive course of studies.
Recommended: At least 10th grade reading skill.
Examines principles of operation, diagnosis, service, and repair of fuel systems and emission controls. Explains use of automotive tools and testing equipment. Includes lectures, demonstrations, and lab work on shop training units and “live” service vehicles. 2cr., 4hr. lect./lab

40A Basic Auto Electrical Systems
Prereq: ABRP 41EFGH, or consent.
Recommended: At least 10th grade reading skill.
Examines principles of operation, diagnosis, service, and repair of the ignition, electronic system. Covers the electronics, starting and charging system. Explains use of automotive tools and testing equipment. 4cr., 8hr. lect./lab

40B Fuel and Emission Systems
Prereq: ENG 19 with grade C or better, or placement at least ENG 22, or consent. Student must maintain a valid Driver’s license throughout duration of the automotive course of studies.
Recommended: At least 10th grade reading skill.
Examines principles of operation, diagnosis, and repair of fuel systems and emission systems. Examines carburetion, fuel injection, supercharging, turbocharging, fuel pumps, electronic control systems, and emission controls. Explains use of automotive tools and testing equipment. 4cr., 8hr. lect./lab

40C Electrical/Electronics I
Prereq: ENG 19 with grade C or better, or placement at least ENG 22, or consent. Student must maintain a valid Driver’s license throughout duration of the automotive course of studies. Coreq: AMT 41C. Recommended: At least 10th grade reading skill.
Examines principles of operation, diagnosis, service, and repair of the electrical/electronic system. Covers the electronics theory, circuits and schematics, batteries, starting and charging system. Explains use of automotive tools and testing equipment. 4cr., 8hr. lect./lab

40E Advanced Fuel and Emission Systems
Prereq: ABRP 41EFGH, or consent.
Recommended: At least 10th grade reading skill.
Examines principles of operation, diagnosis, service, and repair of standard transmissions and transaxles, clutches, drive shafts, and drive axles. Explains use of automotive tools and testing equipment. 4cr., 8hr. lect./lab

43B Advanced Auto Heating and Air Conditioning
Prereq: ENG 19 with grade C or better, or placement at least ENG 22, or consent. Student must maintain a valid Driver’s license throughout duration of the automotive course of studies.
Recommended: At least 10th grade reading skill.
Examines principles of operation, diagnosis, service, and repair of automotive air conditioning, heating, and automatic climate control systems. Explains use of automotive tools and testing equipment. 4cr., 8hr. lect./lab

46 Power Train
Prereq: ENG 19 with grade C or better, or placement at least ENG 22, or consent. Student must maintain a valid Driver’s license throughout duration of the automotive course of studies.
Recommended: At least 10th grade reading skill.
Examines principles of operation, diagnosis, and repair of standard transmissions and transaxles, clutches, drive shafts, and drive axles. Explains use of automotive tools and testing equipment. 4cr., 8hr. lect./lab
of studies. Recommended: At least 10th grade reading skill, or consent.
Examines principles of operation, diagnosis, and repair of automatic transmissions and transaxles. Explains use of automotive tools and testing equipment. 4cr., 8hr. lect./lab

53 Brake System
Prereq: ENG 19 with grade C or better, or placement at least ENG 22, or consent.
Student must maintain a valid Driver’s license throughout duration of the automotive course of studies. Recommended: At least 10th grade reading skill, or consent.
Examines principles of operation, diagnosis, service, and repair of drum, disc, and power brake systems. Explains use of automotive tools and testing equipment. 4cr., 8hr. lect./lab

55 Suspension-Steering
Prereq: ENG 19 with grade C or better, or placement at least ENG 22, or consent.
Student must maintain a valid Driver’s license throughout duration of the automotive course of studies. Recommended: At least 10th grade reading skill, or consent.
Examines principles of operation, theory, design, and repair of standard and power steering systems, front and rear suspension, tires, alignment, and balancing. Explains use of automotive tools and testing equipment. 3cr., 6hr. lect./lab

60 Diagnostic and Repair
Prereq or coreq: AMT 20, 30, 40B, 40C, 40G (or concurrent), 41C, 43, 46, 50, 53, and 55, or consent. Student must maintain a valid Driver’s license throughout duration of the automotive course of studies.
Applies diagnostic skills and techniques in advanced automotive mechanics technology with emphasis on realism in lab and shop operations. Includes students being prepared to take the ASE certification exam in the following areas: suspension and steering, electrical/electronics, engine performance, automatic transmission/transaxle, manual drive train and axles, brakes, heating and air conditioning, and engine repair. 8cr., 16hr. lect./lab

244 Essentials of Biochemistry
Prereq: BIOC 241 or CHEM 151 or CHEM 161, or consent.
Introduces chemical principles and concepts of living systems. Emphasizes the composition, function, and transformation of biological substances in animals, plants, and microorganisms. Provides sufficient organic chemistry to supplement a thorough understanding of the general concepts of biochemistry. 3cr., 3hr. lect. (EA, DP)

Biology (BIOL)
J. Boswell, B. Butler, S. Calder, A. Coopersmith, C. Hornick, S. Irwin

100 Human Biology
Prereq: ENG 22 or 55 with grade C or better, or placement at ENG 100, or consent.
Surveys human anatomy and physiology. Introduces students to the structure and function of cells, tissues, organs, and systems of the human body. Includes disease processes and recent scientific advances. 3cr., 3hr. lect. (IN, DB)

101 Biology and Society
Prereq: ENG 22 with grade C or better, or placement at ENG 100, or consent.
Introduces characteristics of science, historical development of scientific concepts, and interactions of society with science, illustrated by topics from biological sciences. (Crosslisted as SCI 121.) 4cr., 3hr. lect./3hr. lab (EA, EL, DB, DY)

102 General Botany
Prereq: ENG 22 with grade C or better, or placement at ENG 100, or consent.
Introduces growth, function, and evolution of plants. Analyzes human interactions with plants and plant interactions with their environment. (Crosslisted as BOT 101.) 4cr., 3hr. lect./3hr. lab (EA, EL DB, DY)
103 Principles of Zoology
Prereq: ENG 22 with grade C or better, or placement at ENG 100, or consent.
Surveys major animal groups with emphasis on structure, physiology, development, reproduction, evolution, ecology, behavior, and interactions with humans. (Crosslisted as ZOOL 101.) 4cr., 3hr. lect./3hr. lab (EA, EL, DB, DY)

105 Hawaiian Field Biology
Prereq: ENG 22 with grade C or better, or placement at ENG 100, or consent.
Surveys, in the classroom and on location, ecosystems from near-shore ocean waters to mountain top. Considers geological history, physical geography, and natural history. Discuss pre-Polynesian establishment of organisms, origins of endemic species, and the influences of human populations on island ecosystems. Evaluates alterations and resource depletion with an emphasis on pollution, overpopulation, and perceptions on global ecology. Discusses impacts of science, technology, values, and ethics. Introduces the concepts of bioethics, patenting, and regulatory issues. Includes laboratory section with hands-on applications in DNA and protein technologies. 3cr., 2hr. lect/3hr. lab (IN, DY)

124 Environment & Ecology
Prereq: ENG 22 with grade C or better, or placement at ENG 100, or consent.
Examines the biological and physical principles affecting human interactions with the environment. Explores the impacts of science, technology, values, and perceptions on global ecology. Discusses problems of pollution, overpopulation, and resource depletion with an emphasis on island ecosystems. Evaluates alternatives to current actions and public policies stressing responsibility of the individual. 3cr., 3hr. lect. (EA, DB)

124L Environment & Ecology Laboratory
Prereq: BIOL 124 with grade C or better, or concurrent, or consent.
Laboratory to accompany BIOL 124. 1cr., 3hr. lab (EA, EL, DY)

151 Introduction to Genetics
Prereq: ENG 100, or consent.
Recommended: BIOL 100 or 101.
Introduces basic concepts in genetics and explores how they are used in research. Investigates human gene structure and function, including the genetic basis of development, causes of birth defects, mental retardation, genetic diseases, sexual determination, and behavior. Surveys current topics in genetic research. 3cr., 3hr. lect. (IN, DB)

151L Introduction to Genetics Lab
Prereq: BIOL 100 or 101, and ENG 100, and MATH 82 either with grade C or better, or placement at least MATH 100 or 103, or consent.
Coreq: BIOL 151, or consent.
Recommended: CHEM 151.
Introduces molecular biology and classical genetics techniques utilized in the science of genetics. Prepares students to engage in laboratory investigations concerning problems in genetics. 1cr., 3hr. lab (EA, EL, HI, DB, DY)

152 Introduction to Biotechnology
Prereq: BIOL 100 or 101, ENG 100, and MATH 82, all with grade B or better, or consent. Recommended preparation: High school or college level chemistry and BIOL 151.
Introduces the fundamentals of cell and molecular biology. Covers the physiology of prokaryotic and eukaryotic cells, protein structure and functions, protein synthesis, genome organization in viruses, gene cloning, DNA technology, and genetic engineering. Discusses bioethics. 3cr., 3hr. lect/3hr. lab (EA, EL, HI, DB, DY)

152L Introduction to Biotechnology Laboratory
Prereq: BIOL 151, BIOL 171L, and 172 (or concurrent), or consent.
Laboratory to accompany BIOL 172. 1cr., 3hr. lab (EA, EL, DY)

200 Coral Reefs
Prereq: ENG 22 or 55 with grade C or better, or placement at ENG 100, or consent.
Introduces the biology, ecology, and geology of stony corals and the reef structures they build. Identifies the roles of other members of the coral reef community including algae, other invertebrates, and fishes. Explores the use of corals as resources and the impacts of human activities on coral reefs. 4cr., 3hr. lect/3hr. lab (EA, EL, HI, DB, DY)

225 Fundamentals of Cell & Molecular Biology
Prereq: BIOL 151, BIOL 171L & 171L, CHEM 161 & 161L, and MICR 130, and CHEM 162 & 162L or BIOL 241, or consent.
Recommended: ENG 100.
Introduces the fundamentals of cell and molecular biology. Covers the physiology of prokaryotic and eukaryotic cells, protein structure and functions, protein synthesis, genome organization in viruses, gene cloning, DNA technology, and genetic engineering. Discusses bioethics. 4cr., 3hr. lect./3hr. lab (DB, DY)
226 Methods in Biotechnology
Prereq: BIOL 225 with C or better, or consent.
Focuses on techniques, ethical issues and theory for the biotechnology industry.
Covers concepts and skills including protein biochemistry, tissue culturing techniques, manipulation, extraction and purification of DNA, probe preparation and hybridization methods. Emphasizes aseptic techniques, along with methods of media preparation, growth and maintenance bacteria.
3cr., 11hr. lect./lab (EA, EL)

Business (BUS)

120 Principles of Business
Prereq: ENG 19 with grade C or better, or placement at least ENG 22 or 55, or consent.
Recommended: ENG 22 or 55 with grade C or better, or placement at ENG 100.
Surveys the fundamentals of American business enterprise. Treats the foundations and responsibilities of business, management, finance, marketing, and the legal, government, and social environment.
3cr., 3hr. lect./disc.

125 Starting a Small Business
Prereq: ENG 19 with grade C or better, or placement at least ENG 22 or 55, or consent.
Recommended: ENG 22 or 55 with grade C or better, or placement at ENG 100, or consent.
Surveys the small business environment, establishing a firm, decision-making processes, marketing assessments, financing, operations considerations, and government regulations. Covers development of a business plan. Designed for those who wish to start or are currently operating their own small business.
3cr., 3hr. lect.

130 Business Communication - Oral
Prereq: ENG 22 or 55 with grade C or better, or placement at ENG 100, or consent.
Develops competence in oral communication within business and organizational context. Provides the theory and practical skills to be a confident and effective communicator in a variety of business and organizational settings.
(Prereq: BIOL 102.) 4cr., 3hr. lect./3hr. lab (EA, EL, DB, DY)

150 Personal Finance
Prereq: ENG 19 with grade C or better or placement at least ENG 22 or 55, and MATH 18 with grade C or better, or placement at least MATH 82, or consent.
Introduces financial planning, money management and tax planning. Includes financing real and personal property, purchasing insurance and managing investments.
(Prereq: BIOL 102.) 3cr., 3hr. lect.

181 Principles of Finance
Prereq: ACC 202, BUS 120, ECON 130, 131, MATH 115, 135, or higher, or consent.
Focuses on financial analysis and management. Includes financial statement analysis, discounted cash flow, financial markets and interest rate determination, stock and bond valuation models, capital budgeting, and management of working capital utilizing manual calculations. Provides knowledge of the concepts of risk and return, cost of capital, and capital structure. Includes international finance and elements of business ethics.
3cr., 3 hr. lect.

415 Entrepreneurial Business Planning
Prereq: ACC 300, BUS 318, MGT 310, and MKT 300; or consent.
Teaches development and implementation of business plans. Includes research, writing, and presentations. Explores the use of business plans for raising capital, starting a new business, and validating timelines.
3cr., 3hr. lect.
420 Global Business Strategies
Prereq: MKT 300 and MGT 310, or consent.
Focuses on understanding the global environment and the interconnections of cultural, political, legal, economic, and ethical systems. Identifies forms of business ownership and international opportunities. Explores basic concepts underlying international finance, management, marketing, and trade relations. 3cr., 3hr. lect.

495 ABIT Capstone
Prereq: BUS 318 and 320, MGT 400 and ICS 418, all with grade C or better, or consent.
Provides an opportunity to utilize and demonstrate the tools and understanding developed during the ABIT program. Includes strategy formulation and implementation, competitive analysis, and e-commerce as models for problem solving and decision-making in an organizational setting. A capstone project is required. 6cr., 6hr. lect.

Business Technology (BUSN)
C. Carletta, C. Pascual, M. Wukelic
70 Filing
Prereq or coreq: ENG 22 or 55, or consent.
Introduces indexing and filing procedures. Covers the theory and practice of alphabetic, geographic, and subject systems. 1cr., 1.33hr. lect./lab

89 Electronic Calculating
Gives students practice with real world skills used in the modern business environment. Emphasizes proper technique and speed with the ten-key pad found on calculators, computer keyboards, and cash registers. Develops the ability to work with numbers and use of a calculator to perform business computations. 1cr., 1.25hr. lect./lab, 1hr. lab

110 Office Computer Troubleshooting and Maintenance
Prereq: BUSN 150 or ICS 101 either with grade C or better, or consent.
Introduces basic troubleshooting and maintenance procedures for personal computers used in typical office environments. Develops basic understanding of computer hardware modules and operating system software. Covers system assembly, disassembly, configuration, booting up, preparing disk drives, loading operating system software, diagnosing problems, and upgrading. 3cr., 3.5hr. lect./lab

121 Introduction to Word Processing
Introduces the parts of a personal computer and how the computer keyboard and mouse are used. Develops the ability to key alphabetic, punctuation, number, symbol keys, and the ten-key pad by touch. Further develops speed, accuracy, and technique keying. Introduces document formatting. 3cr., 3hr. lect./lab

123 Word Processing for Business
Prereq: ENG 22 or 55 with grade C or better, or placement at ENG 100, or consent.
Recommended: 35 gross words a minute (gwas) or BUSN 121 with grade C or better. Uses advanced features from a word processing program to create business documents emphasizing production and proofreading. Integrates knowledge of the Internet and the computer. Includes timed computer keyboarding skills for creating and editing business documents and sending electronic attachments. 3cr., 3hr. lect./lab

150 Introduction to Business Computing
Recommended: BUSN 121 or high school typing.
Introduces the role of computers in the evolution of an information-based society. Reviews history and need for information processing, the basic information processing cycle and functions, processing capabilities of computers, system development, and program development. Provides students with experience in an operating system and business applications, such as word processing, database management, spreadsheets, and presentation software. 3cr., 3hr. lect./lab (FI)

151 Intermediate Business Computing
Prereq: BUSN 150 or ICS 101 either with grade C or better, or consent.
Expands the concepts of business computing introduced in BUSN 150. Develops greater proficiency in creating, modifying, and printing documents, spreadsheets, database queries, reports, and forms. Broadens knowledge of word processing, spreadsheet, database, and presentation software. Provides experience with typical business applications that utilize Intranet and Internet technologies. 3cr., 3hr. lect./lab (FI)

157 Desktop Publishing for Business
Prereq: BUSN 150 or ICS 101 either with grade C or better, or consent.
Introduces desktop publishing on the personal computer. Develops proficiency in creating and modifying layout for brochures, business cards, fliers, and newsletters. Covers basic principles of graphics designs, formatting techniques, importing text files from word processing programs, preparing and importing various types of graphics, and creating special effects with graphics and text. 3cr., 4hr. lect./lab
161 Customer Service  
**Prereq:** ENG 22 or 55, or placement at ENG 100, or consent.

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 and will develop strategies to create positive customer relationships encountered in various situations on the job. This is a Business Technology course.  
3cr., 3hr. lect./lab

166 Professional Employment Preparation  
**Recommended:** Ability to keyboard and knowledge of word processing.  
Facilitates employment search by emphasizing professional techniques and standards in the preparation of application forms, resumes, cover letters, and employment interviews.  
(Crosslisted as IS 105C.) 1cr., 1lect.

170 Records and Information Management  
**Prereq:** ENG 100 (or concurrent), or consent.  
Studies principles and procedures for organizing and operating Records and Information Management (RIM) programs. Topics include: selection of filing systems, equipment, and supplies; procedures for storage, retrieval, transfer, retention, and disposal of record; records inventory and analysis; records protection and disposition; and study and application of ARMA (Association of Records Managers and Administrators) rules for alphabetic, alphanumeric, geographic, numeric, and subject methods. Helps a business or organization meet its fiscal, legal, governmental, requirements by managing its information systems.  
3cr., 3hr. lect./lab

183 Executive Transcription  
**Prereq:** BUSN 123 and ENG 209 (or concurrent), or consent.  
Develops machine transcription skills for the conversion of business documents from dictated, unedited material to correctly formatted, mailable copy. Emphasizes executive, medical, legal, and technical terminology.  
3cr., 3hr. lect./lab

185 Processing Physician’s Orders  
**Prereq:** NURS 50 and BUSN 123 both with grade C or better, or consent.  
Introduces skills for transcribing physician orders. Includes transcribing medication, intravenous, admission, pre-operative, post-operative, and referral orders. Includes computer transcription.  
3cr., 1hr. lect./4hr. lab

189 Business Mathematics  
**Prereq:** MATH 18 either with grade C or better, or placement at least MATH 82, or consent.  
Introduces various quantitative computational procedures used in accounting and finance such as present and future value concepts, payroll, inventory, and international currency exchange rates. Utilization of the electronic 10-key pad as a tool for calculating will be stressed.  
3cr., 3hr. lect./lab

193v Business Technology Cooperative Education  
**Prereq:** Business Technology major or permission of department or instructor.  
Provides practical career-related work experience through a program used nationally in colleges and universities to apply classroom knowledge and to develop job competencies. Full-time or part-time work in private and public sectors of the business, government and industrial communities is utilized for this program.  
1-3cr., 1.25hr. Seminar/Minimum 75 documented field experience hours per credit (e.g., 1cr.=75hrs; 2cr.=150hrs.)

232 Business Computer Spreadsheets  
**Prereq:** BUSN 151 and BUSN 189 both with grade C or better, or consent.  
Covers business spreadsheets with special attention to advanced techniques required by experts. Develops critical thinking skills for applying software tools to business problems. Covers financial and logical functions, custom formatting, charts and graphs, multi-sheet and shared workbooks, formula auditing, data importing, Web features, one-variable and two-variable data tables, and application development tools.  
3cr., 3hr. lect./lab

237 Business Computer Databases  
**Prereq:** BUSN 151 and BUSN 189 both with grade C or better, or consent.  
Covers business databases with special attention to advanced techniques required by experts. Develops critical thinking for applying software tools to business problems. Covers databases and table creation and modification, queries, forms, reports, defining data relationships, importing and exporting data, multi-user databases, operations on the Web, and creating database applications.  
3cr., 3hr. lect./lab

261 Web Page Construction Fundamentals and Marketing  
**Prereq:** BUSN 150 or ICS 101 either with grade C or better, or consent.  
Introduces web page construction including HTML code, Internet service providers, and web page construction software. Examines World Wide Web marketing strategies.  
3cr., 3hr. lect./lab

262 e-Commerce Web Construction and Marketing  
**Prereq:** BUSN 261 with grade C or better, or consent.  
Introduces e-Commerce web page construction including advanced HTML Code, Internet service providers, web page construction software, shopping baskets, marketing strategies, and other topics.  
3cr., 3hr. lect./lab

286 Legal Terminology and Procedures  
**Prereq:** ENG 209 with grade C or better, or placement at least MATH 82, or consent.  
Covers legal terminology and procedures. Emphasizes creating, formatting, and editing common types of legal documents.  
3cr., 3hr. lect./lab
292 Integrated Office Procedures  
Prereq: BUSN 123, 151, and 157 all with grade C or better, or consent.
Includes advanced word processing, spreadsheet, database, integration of applications, and creation of a web site. Incorporates electronic presentations for projects. Utilizes Microsoft or Corel WordPerfect Office applications. Applies electronic presentations for projects. Prepares for Microsoft Office User Specialist (MOUS) Core certification. Designed to bring together within a portfolio all elements of learning from the Business Technology program. 3cr., 3hr. lect./lab

Business Law (BLAW)  
R. Miller
200 Legal Environment of Business  
Prereq: ENG 22 or 55 with grade C or better, or placement at ENG 100, or consent.
Introduces legal environment in which businesses operate with particular attention to principles of law relating to contracts, agency, commercial paper, partnerships, corporations, and government regulations. 3cr., 3hr. lect.

Carpentry (CARP)  
C. Atay, A. Carson
20 Basic Carpentry Skills  
Prereq: ENG 19 with grade C or better or placement at least ENG 22 or 55, and at least MATH 18 with grade C or better (or concurrent); or consent.
Introduces proper use and maintenance of carpentry hand and power tools. Practices selecting and using construction materials and fastening systems. 3cr., 1hr. lect./3hr. lab

41 Rough Carpentry  
Prereq: CARP 20, or consent.
Introduces theoretical and on-the-job skills necessary to lay out and construct foundations, wall and ceiling framing, and roofing systems for residential and light commercial construction. 3cr., 4hr. lect./lab

42 Exterior Finishing  
Prereq: CARP 20, or consent.
Covers theoretical and on-the-job skills necessary to install exterior windows, doors, roofing, siding, and decks in residential and light commercial construction. 3cr., 4hr. lect./lab

43 Interior Finish  
Prereq: CARP 20, or consent.
Introduces interior finish of floors, walls, ceiling, trim and special feature applications in residential and light commercial construction. 3 cr., 4hr. lect./lab

44 Cabinets and Stairways  
Prereq: CARP 20, or consent.
Focuses on installation of cabinets, countertops, stairways, and railings in residential and light commercial construction. 3 cr., 4hr. lect./lab

Chemistry (CHEM)  
S. Calder, S. Irwin
151 Elementary Survey of Chemistry  
Prereq: ENG 22 or 55 with grade C or better or placement at ENG 100, and MATH 82 with grade C or better, or placement at least MATH 103, or consent.
Provides the beginning student with background in the fundamentals of chemistry. Intended for students needing a one-semester science course. Presents films, demonstrations, and experiments of introductory laboratory exercises illustrating chemical principles. 4cr., 3hr. lect./3hr. lab (FN, DP, DY)

161 General Chemistry I  
Prereq: ENG 100, or consent.
Covers basic principles of chemistry including introduction to units, equations, atomic structure, chemical bonding, gases, crystals, and solutions. 3cr., 3hr. lect. (FN)

161L General Chemistry Laboratory I  
Coreq: CHEM 161L.
Presents laboratory experiments illustrating fundamental principles of chemistry. 1cr., 3hr. lab (DP)

162 General Chemistry II  
Prereq: CHEM 161 and MATH 135, or consent. Coreq: CHEM 162L.
Covers reaction thermodynamics, chemical kinetics, chemical equilibrium, acids and bases, solubility, complex ions, oxidation-reduction, and the various groups of elements including their differences, production, uses, and reactions. 3cr., 3hr. lect. (FN, DP)

162L General Chemistry Laboratory II  
Coreq: CHEM 162, or consent.
Presents laboratory experiments illustrating fundamental principles of chemistry. 1cr., 3hr. lab (DY)

Communication (COM)  
C. Thompson
130 Business Communication - Oral  
Prereq: ENG 22 or 55 with grade C or better, or placement at ENG 100, or consent.
Develops competence in oral communication within business and organizational context. Provides the theory and practical skills to be a confident and effective communicator in a variety of business and organizational settings. (Crosslisted as BUS 130.) 3cr., 3hr. lect. (FO, HE, DA)

145 Interpersonal Communication I  
Provides the theory and practical skills to be a competent communicator in a one-to-one setting. 3cr., 3hr. lect. (FO, IN,DS)

210 Intercultural Communication I  
Prereq: ENG 100, or consent.
Explores problems and opportunities of communicating in a variety of intercultural contexts. Focuses on theory and practice in managing intercultural communication effectiveness. 3cr., 3hr. lect. (FO, CO, DS)
215 Conflict Resolution & Mediation  
Prereq: COM 145 or BUS/COM 130 or PSY 100 with grade C or better, or consent. Recommended: ENG 100 with grade C or better. 
Explores the reason for conflict and the different approaches for seeking resolution for conflict. Studies personal and societal value systems, the psychology of how people respond to conflict, the impact of culture on conflict styles, communication skills useful in dealing with conflict, and alternative resolution strategies. Practices mediation skills as a third party intervention method. (Crosslisted as PSY 253.) 3cr., 3hr. lect. (CO,DS)

353 Conflict Management & Resolution  
Prereq: ENG 100, PSY 100, or SOC 100, any with grade C or better; and BUS/COM 130, COM 145, or COM 210, any with grade C or better; or consent. Recommended: PSY 253/COM 215.  
Examines communication and behavior in interpersonal conflict through analysis of professional and personal relationships. Assesses political, social, and cultural influences on conflict, and applies Western and Polynesian models of dispute resolution processes in relational conflict. (Crosslisted as PSY 353.) 3cr., 3hr. lect. (DS)

459 Intercultural Communication II  
Prereq: ENG 100 with grade C or better, or consent.  
Surveys the major factors affecting interpersonal communication between/among members of different cultures. Expands breadth and depth of knowledge of cultural, social, and political influences on intercultural communication. Focuses on theory, research, and managing intercultural effectiveness globally. 3cr., 3hr. lect. (DS)

Community Health Worker (CHW)  
N. Johnson  
150 Community Health Worker  
Prereq: ENG 19 with grade C or better, or placement at ENG 22, or consent.  
Introduces theoretical and practical clinical skills necessary for providing basic health care assistance and screening services. 4cr., 8hr. lect./lab

155 Community Health Worker Externship  
Prereq: CHW 150 and PHRM 105 both with grade C or better; or consent. Provides practical skills and experiences in clinic settings and in primary health care centers. Increases ability and effectiveness in inter-agency networking, home visiting/client assessments, and case management techniques. 3cr., 8hr. lect./lab

Cooperative Vocational Education (CVE)  
See Special Curricula section on page 56 for details, or call 984-3318. CVE 93v, 193v, 293v Work-based learning.

Culinary Arts (CULN, FSER)  
(D. Louie, B. Marquez, T. Shurilla, C. Speere, T. Lelli)

111 Introduction to the Culinary Industry  
Prereq: ENG 19 with grade C or better, or placement at least ENG 22, or consent. Provides an overview of the culinary industry within the aspects of the entire hospitality industry. Provides students with an introduction to the historical, social, and cultural forces that have affected and shaped the industry of today. Identifies job qualifications and opportunities, professional standards, communication skills, and attitudes essential for successful workers in the industry. (Formerly FSER 20.) 2cr., 2hr. lect.
112 Sanitation and Safety
Prereq: ENG 19 with grade C or better, or placement at least ENG 22, or consent.
Studies and applies the principles and procedures of sanitation and safety in the hospitality industry. Includes the study of food-borne illnesses, biological, chemical, physical hazards, and cross-contamination as they may occur during the flow of food. Introduces HACCP (Hazard Analysis Critical Control Point) and other sanitation and safety programs. Covers safety issues and OSHA (Occupational Safety and Health Administration) guidelines and standards as they apply to the hospitality industry. (Formerly FSER 21.) 2cr., 2hr. lect.

114 Introduction to Beverage Department
Prereq: CA in CULN, or consent.
Meets the basic needs of cooks with regards to alcoholic beverages used in the restaurant industry. Surveys the following areas: basic production processes of alcoholic beverages, bar set-up and equipment used, job descriptions of the various positions commonly found in the service of alcoholic beverages. Specific service techniques used in those positions and what it means to serve alcoholic beverages responsibly. 1cr., 1hr. lect.

115 Menu Merchandising
Prereq: CA in CULN, or consent.
Covers principles of menu merchandising such as cost and pricing, equipment and personnel, design and format, and marketing. 2cr., 2hr. lect.

120 Fundamentals of Cookery
Prereq: CULN 112 with grade C or better (or concurrent), or consent.
Focuses on fundamental concepts, skills, and techniques of cookery. Includes the use of standardized recipes. Covers basic cooking methods for meats, poultry, seafood, vegetables, and starches. Teaches identification, use and maintenance of equipment, tools, and utensils in a safe and sanitary manner. (Formerly FSER 50 & 60.) 4cr., 30hr. lect./90hr. lab per semester (to be offered as 5 wk. or 8 wk. module)

121 Culinary Skill Building
Prereq: CULN 112 with grade C or better (or concurrent), or consent.
Identifies and practices individual culinary skill components necessary in the professional kitchen. Stresses the importance of professional attitudes and habits toward work. Introduces and practices professionalism and self-development. Emphasizes knife skills, stocks and sauces, soups and egg cookery. 4cr., 30hr. lect./90hr. lab per semester

131 Short Order Cookery
Prereq: CULN 112 with grade C or better (or concurrent), or consent.
Identifies and uses tools, equipment, supplies, and foods used in a short order kitchen. Examines various positions in the short order kitchen. Practices, applies, and analyzes principles of cookery and service of short order foods. 2cr., 15hr. lect./45hr. lab per semester

140 Cold Food Pantry
Prereq: CULN 112 with grade C or better (or concurrent), or consent.
Identifies and uses tools, equipment, supplies, and foods used in the cold food kitchen. Discusses the preparation and properties of cold food ingredients. Examines and practices the preparation, presentation, quality control, and merchandising of foods served cold. 2cr., 15hr. lect./45hr. lab per semester

150 Fundamentals of Baking
Prereq: CA in CULN, or consent.
Studies and uses bakery tools, equipment, materials, and recipes. Provides practical experience in working basic hotel and restaurant bakery stations. Involves quality production of bakery goods, pastries, and desserts. 4cr., 2hr. lect./6hr. lab per semester

160 Dining Room Service
Prereq: CULN 112 with grade C or better, or consent.
Provides study and practice in various types of table service. Teaches proper serving etiquette with respect to customer relations. Includes practical experiences in a public dining room. 3cr., 15hr. lect./90hr. lab per semester

220 Advanced Cookery
Prereq: CULN 112, 120, 121, 131, 140 with grade C or better, or consent.
Provides practice and theory in the art of ala carte and banquet food production as found in quality hotels and specialty restaurants. 5cr., 2hr. lect./9hr. lab

240 Buffet Preparation
Prereq: CA in CULN, or consent.
Provides instruction and demonstration in the preparation of hot and cold hors d’oeuvres, canapes, aspics, chaud-froids, mousses, pates and terrines, buffet centerpieces, and vegetable and ice carvings. Discusses buffet catering, set-up, and menu planning. 4cr., 2hr. lect./6hr. lab
250 Advanced Baking I
Prereq: CULN 150 with grade C or better, or consent.
Develops skills used in the production of more advanced baked pastry and confectionery products: especially chocolates, sugars, candies, and decorated specialties. 4cr., 30hr. lect./90hr. lab per semester

251 Advanced Baking II
Prereq: CULN 250 with grade C or better, or consent.
Develops skills used in the production of more advanced baked pastry and confectionery products: especially souffles, frozen items, marzipan, and decorated specialties. 4cr., 30hr. lect./90hr. lab per semester

265 Beverage Operations
Prereq: CA in CULN, or consent.
Covers product identification of wines, beers, and spirits, including how they are manufactured and marketed. Emphasizes bar management over bartending skills. Teaches principles of setting up and operating a bar, including cost and quality controls, sales/merchandising, customer relations, and serving alcoholic beverages responsibly. 3cr., 3hr. lect.

271 Purchasing & Cost Controls
Prereq: CA in CULN, or consent.
Analyzes purchasing and food control systems in commercial food service operations. Practices cost and sales analysis, comparative buying, and inventory control. 4cr., 8hr. lect./lab

280 Food, Cooking, & Health in Hawai’i
Prereq: CA in CULN and FSHN 185, or consent.
Introduces the unique aspects of Hawai’i and Hawaiian culture as they relate to food, the origins of native Hawaiian foods, their uses and the protocol involved. Relates changes in traditional Hawaiian menus and diets to society and time. Discusses nutrition principles of the traditional Hawaiian diet and use those principles to develop healthy foods and menus in partnership with local farmers. Identifies native Hawaiian foods and uses them to develop a contemporary cuisine. 3cr., 1hr. lect./6hr. lab

281 Cooking for Better Health
Prereq: CA in CULN and FSHN 185, or consent.
Reviews and studies basic nutrition principles upon which healthy menus can be built. Combines nutritional cooking principles and advanced cookery methods and techniques to produce and serve healthy classical and modern cuisine. 3cr., 1 hr. lect./6hr. lab

292v Work Practicum
Prereq: CULN 112 (or concurrent); or consent.
Provides broad-based exposure to principles and practices of the fundamentals of catering with the food service industry. Utilize practical hands-on experiences to teach the facets of sales, planning, preparation, and service of catered on and off premise affairs covering: theme, receptions, buffets, and banquets. Also provides a means for experiencing a diversity of on-site food service through field trips. (May be repeated for a maximum of 9 credits.) 1-3 cr., hours arranged

293v Culinary Arts Field Experiences
Prereq: CA in CULN, or consent.
Offers flexible, customized, and supervised school-to-work experiences in all aspects of the culinary arts industry. Integrates and applies classroom theory to work situations via numerous field experiences. Infuses the “Culinary Code” into field experiences. (May be repeated for a maximum of 9 credits.) 5-15hr. field experience per week and seminars arranged

294v Work Practicum & Seminar in the Culinary Arts
Prereq: CULN 111, 112, 120, 121, 131, 140 with grade C or better, or consent.
Provides individualized, broad-based exposure to the principles and practice of the culinary arts via supervised work experiences in various operational capacities. Utilizes seminars to enhance application and relevance of principles and required competencies. Encourages cooperative and collaborative skills, development, professional and personal growth. (May be repeated for a maximum of 9 credits.) 1-3cr., 1 hr. lect., 3hr. practicum per credit per week.

131 Modern Dance I
Prereq: DNCE 131, or consent.
Provides an introduction to basic modern technique skills and explores the creative process through dance. 3cr., 4hr. lect./lab (HE, DA)

132 Modern Dance II
Prereq: DNCE 131, or consent.
Provides a continuation of the development of skills and concepts introduced in DNCE 131. 3cr., 4hr. lect./lab (HE, DA)

150 Survey of Dance
Provides a survey of contemporary western dance including ballet, modern dance and jazz, with emphasis on appreciation and understanding of dance as an art form. 3cr., 3hr. lect. (DA)

180 Dance Production I
Coreq: DNCE 131 or 132, or consent.
Provides an opportunity for creation and performance of a dance piece. Addresses all aspects of production. 1cr., 2hr. lect./lab (DA)

120 Dental Office Principles for Dental Assistants
Prereq: Admission to Dental Assisting program or consent, and ENG 22 with grade C or better, or placement at ENG 100.
Develops skills and knowledge to manage the business activities of the dental office. Introduces communication skills, record and financial management, scheduling practices, marketing and career objectives for the dental assistant. Includes telephone techniques, scheduling and confirming appointments, organization of files, charts and patient records, claims processing, accounting, patient needs and follow-up, marketing techniques, maintaining and ordering of dental supplies. 3cr., 3hr. lect.
150 Orientation to Dental Assisting
Prereq: Admission to Dental Assisting program, or consent.
Provides an orientation to dental practice, including specialties, history, professional and legal responsibilities, role of the dental auxiliary, dental and medical terminology, patient communication, and office personnel relationships. Introduces infectious diseases important to dentistry, hazardous materials and waste management, and rules of regulatory agencies (DCCA, OSHA, CDC, and ADA). Teaches disinfection, instrument decontamination, sterilization procedures, tray set-up preparation, and protocols and emergency procedures for hazardous and biohazardous waste or materials. (Letter grade only.)
2cr., 2hr. lect.

151 Intro to Chairside Dental Assisting
Prereq: Admission to Dental Assisting program, or consent.
Introduces basic procedures of chairside assisting, use and care of dental equipment, patient management, instrument identification, sterilization procedures and tray set-up preparation, and manipulation of dental materials, including temporary dressings, cement bases and liners, topical agents, alginate composites, resins, and amalgams. Includes supervised clinical experience in dental and periodontal charting, and dental assisting functions. (Letter grade only.)
5cr., 1hr. lect./9hr. lab/2hr. lect./lab

152 Chairside Dental Assisting
Prereq: DENT 151 with grade C or better, or consent.
Provides supervised clinical experience in dental assisting. Includes supervised clinical in externship environments. Includes advanced and specialty chairside procedures. (Letter grade only.)
4cr., 12 hr. lab

154 Dental Materials
Prereq: DENT 151 with grade C or better, or consent.
Reviews physical and chemical properties and manipulations of alginate impression materials, gypsum products, cements, resins, metallic and non metallic restorative materials, investments, and waxes.

156 Oral Biology I
Prereq: Admission to the Dental Assisting program, or consent.
Discusses general anatomy of the skull; arteries, veins, and lymphatics; musculature; and nervous structures of the head and neck, including the normal periodontal tissues, oral mucous membranes, and salivary glands. Includes the embryologic development of the structures and tissues of the head, neck, teeth and oral cavity, oral microbiology, and nutrition. Discusses the anatomy and identification of teeth, the eruption sequence, normal occlusion, and classification of occlusion. (Letter grade only.)
3cr., 2hr. lect./2hr. lect./lab

157 Oral Biology II
Prereq: DENT 164 with grade C or better, or consent.
Reviews embryonic development of the structures and tissues in the head, neck, teeth, and oral cavity. Discusses histology of the hard and soft tissues of the oral cavity. Explains development of structural defects involving the oral cavity and teeth. Includes normal periodontal tissues, oral mucous membranes, and salivary glands. (Letter grade only.)
1cr., 3hr. lab

176 Dental Radiology I
Prereq: Admission to the Dental Assisting program, or consent.
Discusses production, characteristics, and biological effects of radiation, and the functions, components, and operation of the x-ray unit. Includes radiation protection and monitoring, chemistry and techniques associated with x-ray film, and developing solutions. Reviews anatomic landmarks, and introduces intra-oral and long-cone radiographic techniques in bitewing, periapical, and occlusal surveys. (Letter grade only.)
2cr., 4hr. lect./lab

177 Dental Radiology II
Prereq: DENT 176 with grade C or better, or consent.
Discusses evaluation of film quality and recognition of anomalies and variations in tissue density. Introduces specialized procedures for the periodontic, endodontic, and edentulous patient. Explains forensic and legal considerations, and introduces principles of panoramic and cephalometric film. (Letter grade only.)
1cr., 3hr. lab
**Dental Hygiene (DH)**

R. Vierra

150  **Oral Histology & Embryology**  
Prereq: DENT 165 with grade C or better, or consent.  
Describes general and oral histology including an overview of oral embryology, a study of the fundamentals of cytology, and the normal microscopic anatomy of oral tissues.  2 cr., 1 hr. lect./2 hr. lect./lab

153  **Assessment Procedures in Dental Hygiene**  
Prereq: Admission to Dental Hygiene program.  
Provides an orientation to dental hygiene practice.  Focuses on the assessment techniques of the dental hygiene process of care model.  Introduces infectious diseases important to dentistry, hazardous materials management, waste management, and rules of regulatory agencies (DCCA, OSHA, CDC and ADA).  
Teaches disinfection, instrument decontamination, sterilization procedures, tray set-up preparation and protocols, and emergency procedures for hazardous and biohazardous waste and materials.  
Focuses on dental hygiene assessment procedures including: review of health/dental history, vital signs, extra/intraoral examination, assessment of the dentition, and comprehensive periodontal examination.  Discusses rationale for collection of assessment data and associated clinical procedures.  2 cr., 2 hr. lect.

155  **Dental Emergencies**  
Prereq: Admission to Dental Hygiene program.  
Provides an overview of medical and dental emergencies including prevention of and preparedness for management of emergencies, client observation, and vital signs.  
Discusses basic principles of pharmacology related to emergencies including drug actions and interactions, toxicity and allergy, dental drugs in common use, and drugs used in the treatment of medical problems.  
Discusses legal and ethical aspects of emergency procedures in dentistry.  1 cr., 1 hr. lect.

156  **Preclinical Dental Hygiene**  
Prereq: Admission to Dental Hygiene program.  
Introduces clinical procedures and techniques of dental hygiene including prevention of disease transmission, health/dental history, extra/intraoral examination, gingival evaluation and description, comprehensive periodontal examination, suspicious caries examination, and classification of occlusion.  
Demonstrates operation of the dental unit, basic instrumentation techniques, and ergonomic practice.  3 cr., 1 hr. lect./8 hr. lab

173  **Dental Hygiene Education**  
Prereq: Admission to Dental Hygiene program and PSY 100 with grade C or better (or concurrent).  
Describes fundamentals of client education including communication theory, development of client/clinician relationships, mechanical plaque removal devices, and antimicrobial therapies.  
Emphasizes patient motivation with particular attention to psychological, social, cultural, and economic factors.  
Introduces nutritional counseling in dental hygiene practice, tobacco cessation, critique of dental literature, and evaluation of dental health products.  1 cr., 1 hr. lect.

254  **Pathology in Dental Hygiene and Special Patient Populations**  
Prereq: Admission to Dental Hygiene Program.  
Introduces general pathology and specific pathologic processes, repair, healing, and regressive changes.  Discusses social significance of pathology.  
Correlates pathology and diseases related to the dental hygiene client, including the indications and contraindications for care, modifications to treatment, and appointment planning for special patient/client populations.  Uses client case studies.  3 cr., 3 hr. lect.

255  **Oral Pathology in Dental Hygiene**  
Prereq: DH 254 with grade C or better.  
Examines pathology of the head, neck, and oral structures.  Differentiates developmental conditions, caries, diseases of bacterial, viral, and fungal origin.  
Describes neoplasms of the oral cavity.  2 cr., 2 hr. lect.

256  **Applied Pharmacology in Dentistry**  
Prereq: PHRM 203 with grade C or better, or Licensed Dentist or Dental Hygienist.  
Examines drugs by groups with special emphasis on those used in dentistry including their physical and chemical properties, dosage, and therapeutic effects.  
Describes implications for client dental hygiene care using case studies.  1 cr., 1 hr. lect.

257  **Periodontics 1 and Advanced Clinical Techniques**  
Prereq: DH 156 with grade C or better.  
Focuses on fundamental principles of periodontology including normal periodontium, etiology, and classification of periodontal disease and relationship of dental deposits to periodontal diseases.  
Correlates basic sciences with the clinical aspects of periodontal diseases.  
Describes etiology and pathogenesis of periodontal diseases.  
Identifies development of periodontal pocket, abscess, and process of bone loss.  
Demonstrates advanced instrumentation techniques, ultrasonic devices, root planing, curettage, subgingival irrigation, and hypersensitivity.  2 cr., 1 hr. lect./2 hr./lect/lab.

258  **Periodontics 2 and Advanced Clinical Techniques**  
Prereq: DH 257 with grade C or better.  
Focuses on diagnosis, treatment planning, and therapeutic procedures.  
Explains preventive and therapeutic measures within scope and responsibility of the dental hygienist.  
Utilizes advanced instrumentation in periodontal treatment.  
Compares types of periodontal surgery and therapies.  
Describes rationale and criteria for periodontal referral.  2 cr., 1 hr. lect./2 hr. lect/lab

260  **Clinical Dental Hygiene 1**  
Prereq: DH 156 with grade C or better.  
Focuses on assessing, planning, implementing, and evaluating dental hygiene care on clinic clients.  
Develops clinical competency, skills, and performance with each successive academic semester.  4 cr., 1 hr. lect./12 hr. lab

261  **Clinical Dental Hygiene 2**  
Prereq: DH 260 with grade C or better.  
Focuses on assessing, planning, implementing, and evaluating dental hygiene care on clinic clients.  
Develops clinical competency, skills, and performance with each successive academic semester.  2 cr., 1 hr. lect./4 hr. lab
262 Clinical Dental Hygiene 3  
Prereq: DH 261 with grade C or better.  
Focuses on assessing, planning, implementing, and evaluating dental hygiene care on clinic clients. Develops clinical competency, skill, and performance.  
5cr., 1hr. lect./16hr. lab

263 Clinical Dental Hygiene 4  
Prereq: DH 262 with grade C or better.  
Focuses on assessing, planning, implementing, and evaluating dental hygiene care on clinic clients. Develops clinical competency and skills.  
5cr., 1hr. lect./16hr. lab

264 Community Dental Health  
Prereq: DH 173 with grade C or better.  
Focuses on the role of the public health professional in improving the oral health in the community. Examines community dental health problems, school dental health programs, epidemiology of dental disease, and assessment, development, implementation, and evaluation of a community dental health program.  
2cr., 2hr. lect.

265 Law and Ethics in Dental Hygiene  
Prereq: Admission to Dental Hygiene Program.  
Describes ethics, jurisprudence, and practice aspects of dental hygiene practice. Discovers employment opportunities. Discusses resumes, interviewing, and office policies.  
1cr., 1hr. lect.

266 Local Anesthesia and Pain Control  
Prereq: DENT 155 & 256 both with grade C or better.  
Reviews pharmacology, anatomy, physiology, and emergency procedures associated with local anesthesia and nitrous oxide/oxygen analgesia. Demonstrates preparation for and administration of conduction and infiltration anesthesia in dental procedures. Provides laboratory and clinical experience in administration of local anesthesia and nitrous oxide/oxygen analgesia.  
2cr., 1hr. lect./4hr. lab

267 Dental Radiology and Interpretation  
Prereq: DENT 176 & 177 both with grade C or better.  
Reviews the production, characteristics, and biological effects of radiation, and functions, components, and operation of the x-ray unit. Includes radiation protection and monitoring and chemistry and techniques associated with x-ray film and developing solutions. Reviews anatomic landmarks, and intraoral and long-cone radiographic techniques in bitewing, periapical, and occlusal surveys. Introduces radiographic identification and interpretation of radiographic caries, periodontal disease, trauma, and dental anomalies. Includes clinical lab experience of taking and interpreting x-rays on clients.  
1cr., 2hr. lect/lab

268 Advanced Dental Radiology and Interpretation  
Prereq: DH 267 with grade C or better.  
Expands clinical lab experience taking and interpreting x-rays on clients. Includes advanced radiographic identification and interpretation utilizing dental x-ray films, panoramic, cephalometric, and other extraoral radiographs. Analyzes future trends in radiographic imaging.  
1cr., 2hr. lect/lab

269 Clinical Dental Radiology and Interpretation  
Prereq: DH 268 with grade C or better.  
Expands experience obtaining and interpreting x-rays on clients. Includes advanced radiographic identification and interpretation utilizing dental x-ray films, panoramic, cephalometric, and other extraoral radiographs.  
1cr., 2hr. lect./lab

293v Digital Media Internship I  
Prereq: ICS 161, and consent of instructor and Co-op coordinator.  
Recommended: ICS 102 and ENG 100.  
Reflects student interest area and the availability of job stations. Offers the opportunity to upgrade employment and problem-solving skills. Student, instructor, and employment supervisor jointly develop learning outcomes. The instructor and the employment supervisor jointly evaluate student.  
1-3cr., 1.25hr. sem., 75 documented field experience hours per credit (1cr.=75hr, 2cr.=150hr., 3cr.=225hr.)

Directed Study (DIRS)  
Prereq: Consent.  
See Special Curriculum section on page 56.

Drafting (DRAF)  
C. Atay, A. Carson  
Most Drafting courses are listed as Architectural Engineering & CAD (AEC).

Drama (DRAM)  
C. Gardner  
101 Introduction to Drama and Theatre  
Prereq: ENG 22 with grade C or better, or placement at ENG 100, or consent.  
Treats representative plays from Aeschylus’ Agamemnon to Miller’s Death of a Salesman as illustrative studies of changing forms in the theatre and dramatic literature.  
3cr., 3hr. lect. (CO, HE, DA)

221 Beginning Acting I  
Provides individual exercises and group rehearsals of beginning acting. Emphasizes voice, movement, and relaxation. Students must perform in direction of class scenes.  
3cr., 2hr. lect./2 hr. lab (FO, HE, DA)

222 Beginning Acting II  
Prereq: DRAM 221, or consent.  
Continues Beginning Acting I. Expands work on voice, movement, improvisation and scene work. Requires performance of monologues and scenes from classic and contemporary plays.  
3cr., 2hr. lect./2 hr. lab (FO, HE, DA)

260 Dramatic Production  
Studys the process of converting the play to the performance.  
3cr., 3hr. lect. (HE, DA)
**Economics (ECON)**

**280 Beginning Playwriting**  
Prereq: ENG 100 with grade C or better, or consent.  
Introduces structure, guidelines, and format of the one-act play, beginning with the conception of an idea, followed by effective outlining techniques, subsequent drafts, and the final product in a polished one-act play. 3 cr., 3 hr. lect./lab (HE, DA)

**272 Survey of Japanese Language and Culture**  
H. DeLeon  
Surveys various aspects of Japanese culture in connection with geography, anthropology, sociology, and history. Introduces background of Japanese language. *(Conducted in English.)* 3 cr., 3 hr. lect. (AP)

**East Asian Languages (EALA)**

**105 Introduction to Early Childhood Education**  
Prereq: ENG 19 with grade C or better, or placement at ENG 100, or consent.  
Addresses positive ways to support children’s social-emotional development. Focuses on adult-child and child-child interactions and relationships. *(Crosslisted as FAMR 140.)* 3 cr., 3 hr. lect.

**110 Developmentally Appropriate Practices**  
Prereq: ENG 19 with grade C or better, or placement at least ENG 22, or consent.  
Provides a practical guide and overview of the basic awareness, attitudes, knowledge and skills necessary for working with children from birth through age eight. Introduces concepts of developmentally appropriate practices, the importance of play and inclusion of children with special needs. 3 cr., 3 hr. lect.

**115 Health, Safety, and Nutrition for the Young Child**  
Prereq: ENG 22, or placement at ENG 100, or consent.  
Introduces theories and practices for creating and maintaining a safe, healthy learning environment for young children and adults in group settings. Introduces guidelines and practices for providing for the nutritional needs of young children and adults in group settings. 3 cr., 3 hr. lect.

**131 Principles of Economics: Microeconomics**  
Prereq: Placement at ENG 100, and placement at least MATH 103, or consent.  
Analyzes the market mechanism, prices, competition, and the efficient allocation of scarce resources. Formulates possible solutions to contemporary economic and social issues such as world food problems, poverty and distribution of income, market power of business including multi-nationals, role of labor unions, energy crises, environmental pollution, consumerism, and welfare. 3 cr., 3 hr. lect. (CO, DS)

**150 Personal Finance**  
Prereq: ENG 19 with grade C or better or placement at ENG 22 or at least MATH 55, and MATH 18 with grade C or better or placement at least MATH 82, or consent.  
Introduces financial planning, money management and tax planning. Includes financing real and personal property, purchasing insurance and managing investments. *(Crosslisted as BUS 150.)* 3 cr., 3 hr. lect. (DS)

**18 Personal Economics**  
Introduces ways to get your money’s worth. Explains charge accounts, borrowing, mortgages, insurance, taxes, investments, and retirement planning. Emphasizes practical examples that face the typical family. 3 cr., 3 hr. lect.

**Introduction to Economics**  
Prereq: ENG 22 with grade C or better, or placement at ENG 100, or consent.  
Introduces the way economic systems operate. Contrasts the American economy with other systems. Studies the operation of business. Analyzes national policies in solving the economic problems of inflation, unemployment, and foreign trade. One semester course for non-majors in economics. 3 cr., 3 hr. lect. (CO, DS)

**131 Principles of Economics: Macroeconomics**  
Prereq: Placement at ENG 100, and placement at least MATH 103, or consent.  
Analyzes the forces determining national and international economic performance in such areas as employment, inflation, production, money supply, and trade. Presents, in historical context, the modern economic situation. Describes the relative roles of major economic institutions such as businesses, labor unions, government agencies, international organizations, and the banks. 3 cr., 3 hr. lect. (CO, DS)

*Note: ECON 130 and 131 are both required for Economics majors and for admission to UH Mānoa College of Business Administration. ECON 120, 130, or 131 may be used to meet Social Science core requirements. UH Mānoa students cannot receive more than 6 credits for ECON 120, 130, and 131.*

**130 Principles of Economics: Macroeconomics**  
Prereq: Placement at ENG 100, and placement at least MATH 103, or consent.  
Analyzes the market mechanism, prices, competition, and the efficient allocation of scarce resources. Formulates possible solutions to contemporary economic and social issues such as world food problems, poverty and distribution of income, market power of business including multi-nationals, role of labor unions, energy crises, environmental pollution, consumerism, and welfare. 3 cr., 3 hr. lect. (CO, DS)
152 Early Literacy Development  
Prereq: ENG 22 with grade C or better, or placement at ENG 100, or consent.  
Provides an overview of the historical and contemporary perspectives on early literacy development. Includes information on current research in early literacy and language development. Explores strategies to encourage and facilitate literacy development through the teaching environment, conversation, materials, observation, assessment, planning, and family involvement. Evaluates effects of culture and family on early literacy and language development. 3cr., 3hr. lect.

170 Introduction to Working with Infants and Toddlers  
Prereq: ENG 19, or placement at least ENG 22, or consent.  
Provides an overview of basic skills used in working with infants and toddlers in groups. Focuses on interactive aspects of child development. Introduces infant-toddler caregiving routines and environments, and caregiver roles. Explores ways to enrich experiences and to promote strong relationships with families. 3cr., 3hr. lect.

175B Introduction to Home Visiting  
Prereq: ENG 19, or placement at least ENG 22, or consent. Recommended: FAMR 231 or FAMR 131B/D preferred.  
Explores child growth and development from birth to five with emphasis on establishing a partnership with families to encourage their involvement in enhancement of the child’s self esteem; self-discipline; intellectual development; and physical, social, and emotional competence. Introduces principles of adult learning and effective communication skills. 1cr., 3hr. lect.

175C Home Visiting: Assessment & Recordkeeping  
Prereq: ENG 19, or placement at least ENG 22, or consent.  
Introduces and explores assessment, record keeping, and case-management skills required for home visitor programs. Examines action plans based on identification of the child and adult needs and progress. 1cr., 3hr. lect.

175D Home Visiting: Professionalism  
Prereq: ENG 19, or placement at least ENG 22, or consent.  
Explores community resources, professional ethics, personal boundaries, confidentiality, and professional development for the home visitor to meet the needs of community agencies that employ home visitors. 1cr., 3hr. lect.

190 Early Childhood Field Experience  
Prereq: Permission of instructor and ED 110 and ED 131 both with grade C or better, and ENG 22 or placement in ENG 100. Recommended: ED 105  
Note: Students may be required to obtain a physical or doctor’s note and to be fingerprinted.  
Provides a supervised work experience in an early childhood education and care setting. Supports students in integrating content knowledge with practice. Designed for those who have little or no experience in early childhood programs. Student may be required to obtain a physical or doctor’s note, and to be fingerprinted at student’s expense. 4cr., 8hr. practicum/2hr. seminar (IN)

191v Early Childhood Field Experience IB  
Prereq: Permission of instructor; and ED 110 and ED 131 both with grade C or better; and ENG 22 or placement in ENG 100. For Preschool CDA candidates, Preschool CDA Certificate of Competence required. Recommended: ED 105.  
Note: Students may be required to obtain a physical or doctor’s note and to be fingerprinted at the student’s expense.  
Provides a supervised work experience in an early childhood education and care setting. Supports students in integrating content knowledge with practice. Designed for those already working in an early childhood program. (May be repeated for a maximum of 12 credits.) 1-4cr., 1.5-15hr. practicum/1hr. discussion per week or 2 hrs. discussion every other week.

245 Child, Family, Community  
Prereq: ENG 22, or placement at ENG 100, or consent.  
Develops communication skills in establishing effective partnership relationships with diverse families and other adults. Introduces students to the local resources available for family referral. (Crosslisted as FAMR 235.) 3cr., 3hr. lect. (CO)

263 Language and Creative Expression Curriculum  
Prereq: ED 110 and ED 131, or consent.  
Provides theoretical foundation and practice in the planning, implementation, and assessment of the language arts and creative expression curriculum. Students must have regular contact with preschool children for implementation of course assignments in a setting approved by the instructor. 3cr., 3hr. lect.

264 Inquiry and Physical Curriculum  
Prereq: ED 110 and ED 131, or consent.  
Provides theoretical foundation and practice in the planning, implementation, and assessment of the inquiry and physical curriculum. Students must have regular contact with preschool children for implementation of course assignments in a setting approved by the instructor. 3cr., 3hr. lect.

275 Inclusion of Children with Special Needs  
Prereq: ENG 22, or placement at ENG 100, or consent.  
Provides introduction to legal, historical, and research information about serving young children with special needs in inclusive environments. Introduces issues and practices associated with establishing partnerships with families and understanding collaborative relationships that contribute to meeting diverse needs of young children in inclusive settings. Facilitates development of skills to adapt and modify the learning environment in line with developmentally appropriate practice. Introduces traditional and alternative assessment and identifies skills necessary to facilitate successful transitions. 3cr., 3hr. lect.

281B Early Childhood Program Admin: Licensing & Overview  
Prereq: ENG 22 or placement at ENG 100, and at least MATH 82, or consent.  
Examines licensing and its role; organizations; and roles and responsibilities of the early childhood program administrator. Looks at and evaluates present vision and mission statements, and gives tools to develop vision and mission statements. 1cr., 3hr. lect. for 5 wks.
281C Early Childhood Program Admin: Staff Development  
Prereq: ENG 22 or placement at ENG 100, and at least MATH 82, or consent. 
Examines hiring, grievance, and firing policies of early childhood programs. 
Examines and lets student develop a staff development framework for their program. 1cr., 3hr. lect. for 5 wks.

281D Early Childhood Program Admin: Curriculum & Environment  
Prereq: ENG 22 or placement at ENG 100, and at least MATH 82, or consent. 
Examines and analyzes early childhood curriculum and physical environments. 
Lets students develop plans to improve curriculum and physical environments of individual programs. 
1cr., 3hr. lect. for 5 wks.

282B Early Childhood Program Admin: Budgets & Financial Management  
Prereq: ENG 22 or placement at ENG 100, and at least MATH 82, or consent. 
Examines principles of profit and non-profit management, budgeting, and financial planning. 
Gives students tools to develop budgets and short- and long-term financial plans for early childhood programs. 
1cr., 3hr. lect. for 5 wks.

282C Early Childhood Program Admin: Recordkeeping  
Prereq: ENG 22 or placement at ENG 100, and at least MATH 82, or consent. 
Examines and analyzes operating policies, recordkeeping practices, and staff and child evaluation procedures of early childhood programs. 
1cr., 3hr. lect. for 5 wks.

282D Early Childhood Program Admin: Advocacy  
Prereq: ENG 22 or placement at ENG 100, and at least MATH 82, or consent. 
Examines the various ways an administrator can be an advocate for the profession. 
Looks at programs, accreditation, and understanding and utilizing decision-making processes at the county, state, and federal levels. 
1cr., 3hr. lect. for 5 wks.

291v Early Childhood Field Experience II  
Prereq: Permission of instructor; and ED 105, ED/FAMR 140, ED 190/191v, and ED 245/FAMR 235. Coreq: ED 263 or 264.  
Recommended: ED 115. 
Provides a culminating supervised work experience in an early childhood education and care setting. 
Supports students in integrating content knowledge with practice. (May be repeated for maximum of 8 credits.) Responsibilities increase with each repeat. 1-4cr., 1.5-15hr. practicum/1hr. discussion per week or 2 hrs. discussion every other week. 
Note: Students may be required to obtain a physical or doctor’s note and to be fingerprinted, all at student’s expense.

Electronics (ETRO)  
M. Hoffman, J. Park

101 Introduction to Electronics Technology  
Prereq: ENG 19 with grade C or better, or placement at least ENG 22, or consent. 
Recommended: ICS 101 or equivalent. 
Introduces applications of arithmetic and mathematics to electronic and computer technology, engineering notation, electrical units, schematic diagrams, fundamentals of electronic and computer technology, and electrical components. 
Introduces principles of switching, circuits, code requirements, and appliances. 
Develops skill in practical applications. 
2cr., 3hr. lect./lab

25 Electrical Wiring II  
Prereq: ELECT 23, or consent. 
Studies the electrical system of the typical single-family residential dwelling. 
Examines how local and national codes apply to residential units. 
2cr., 3hr. lect./lab

Electricity (ELEC)  
C. Atay, A. Carson

15 Electrical Safety  
Explores fundamentals of electrical safety in the home, business, and industry. 
Discusses concepts of personal safety, periodic inspection, and regular maintenance. 1cr., 2hr. lect./lab

20 Introduction to Electricity  
Recommended: MATH 18  
Examines residential, commercial, and industrial wiring systems. Studies current, voltage, resistance, and Ohm’s Law. 
Discusses magnetism, electrical measurements, DC circuits, induction, and capacitance. 3cr., 3hr. lect.
114  Electronics

102 Instrumentation for Engineering Technicians
Prereq: ENG 19 with grade C or better, or placement at least ENG 22, or consent. Recommended: ICS 101 or equivalent.
Introduces fundamental principles and applications of optics, electronics, engineering, and computer software integral to the operation of instrumentation used in a variety of disciplines and research areas. Emphasis will be on systems used for data collection, imaging, and image processing, including examples drawn from local high-tech industries. (Letter grade only.) 4cr., 6hr. lect./lab

105 Electronic Circuit Analysis I
Prereq: ETRO 101 with grade C or better, or consent.
Introduces topics including resistance, Ohm’s Law, Kirchhoff’s Laws, Networks with DC voltage sources, circuit analysis, Thévenin’s Theorem and Maximum Power Theorems, and uses of meters. 4cr., 6hr. lect./lab

106 Electronic Circuit Analysis II
Prereq: ETRO 105, or consent. Coreq or prereq: MATH 135, or consent.
Introduces topics including superposition, sinusoidal waveforms, phasor quantities, impedance, Kirchhoff’s Laws, power, resonance, AC meters and instruments. 4cr., 3hr. lect./3hr. lab

110 Electronic Technology I
Prereq: ETRO 105, and MATH 107 or 135, or higher, or consent.
Introduces topics including basic theory and operations of solid-state devices including diodes, bipolar transistors, field effect transistors, SCRs, and zener diodes. Covers electronic circuits performing limiting, rectifying, and amplification. 4cr., 6hr. lect./lab

112 Electronic Technology II
Prereq: ETRO 110 with grade C or better, or consent.
Continues the study of electronic devices and circuits including design of amplifiers, cascade amplifiers, power amps, FET amps, operational amplifiers, IC oscillators, timing circuits and introduction to communication circuits. 4cr., 6hr. lect./lab

130 Computer Hardware & Operating Systems
Prereq: ETRO 101 with grade C or better, or consent.
Introduces the function of computer hardware and software components. Suggests best practices in maintenance and safety issues. Covers computer assembly and configuration. Includes computer operating system installation and troubleshooting of hardware and software problems. Provides an introduction to basic networking concepts. Prepares students for Comp TIA A+ certification. 4cr., 6hr. lect./lab

140 Computer Networking I
Prereq: ETRO 101 with grade C or better, or consent. Recommended: PHYS 105.
Introduces network terminology, protocols, and standards. Covers the OSI model, basic concepts of routers and routing, and IP addressing including subnet masks. Defines and describes different network topologies. Develops configuration and router skills. 4cr., 6hr. lect./lab

160 Laser Safety and Applications
Prereq: ENG 22 or 55 with grade C or better, or placement at ENG 100, and at least MATH 82, or consent. Recommended: ICS 101.
Introduces students to lasers and laser safety. Introduces physical properties of light and their applications in lasers, effects of laser radiation on the anatomy and physiology or eyes and other human organs, and protective measures. Explains proper use of lasers and safety practices. Teaches how to determine necessary safety measures using measurements and calculations. 1cr., 1hr. lect.

161 Introduction to Optics & Photonics
Studies the physics of light, geometric optics, lenses, mirrors, polarizing lenses, interference/diffraction waves, laser physics, optical imaging, and bio-photonics. Provides lab experiments and projects to reinforce the theory. 3cr., 4hr. lect./lab

166 Introduction to Fiber Optics
Prereq: ENG 22 or 55 with grade C or better, or placement at ENG 100, and at least MATH 82, or consent. Recommended: ICS 101.
Introduces fiber optic communications. Provides a background and features hands-on training for installation and maintenance. Emphasizes fiber optic data links for Local Area Network (LAN) applications. Studies fiber types, cables, splices and connectors, and emitters and detectors on transmitters and receivers. 3cr., 3hr. lect./lab

193v Internship I
Prereq: ETRO 101 with grade C or better, or consent.
Introduces the student to the work place, the student’s major interest area, and the availability of job stations. Upgrades opportunities for specific skills dependent upon the job station. Provides work practicum credits based on one credit for each 75 hours of supervised work. Requires a work-related project during which the student will demonstrate competency in acquired employability skills. Student, instructor, and employment supervisor jointly develop learning outcomes. Instructor and employment supervisor jointly evaluate student. (May be repeated for a maximum of 3 credits.) 1-3cr., 75hr./cr.

201 Digital Computer Technology I
Prereq: ETRO 101 with grade C or better, or consent.
Introduces digital computer technology including number systems and codes, Boolean algebra, logic circuits, multivibrator circuits, data control circuits, and troubleshooting of digital circuits. 4cr., 6hr. lect./lab

205 Digital Computer Technology II
Prereq: ETRO 201 and at least MATH 107 or 135, or consent.
Introduces digital computer and microprocessor technology including memory circuits, microprocessor architecture, addressing modes, programming, stack operations, subroutines, input and output operations, microcomputer subsystems and interfacing, troubleshooting of computer circuits. 4cr., 6hr. lect./lab

240 Computer Networking II
Prereq: ETRO 140, or consent.
Offers intermediate level coursework in computer networking. Introduces basics of Ethernet switching. Covers intermediate routing skills including
variable length subnet masking, routing protocols, and WAN technologies topics. Prepares students for the Cisco Certified Networking Associate (CCNA) exam. 4cr., 6hr. lect./lab

285 Windows System Administration and Security
Prereq: ETRO 130 and at least MATH 107 or 135, or consent.
Introduces multiuser, multitasking network operating systems. Explores characteristics of Windows NT, 2000, and XP network operating systems. Covers installation, security, back-up procedures, and remote access. Introduces the Linux operating system in a network environment. 3cr., 4hr. lect./lab

293v Internship II
Prereq: ETRO 193v, or consent.
Introduces the student to the work place, the student’s major interest area, and the availability of job stations. Upgrades opportunities for specific skills dependent upon the job station. Requires a workplace-based project for which the student evaluates and prepares a written proposal as a solution to specific job-related problems. Provides work practicum that emphasizes the employability skills objectives adopted as standards by the Electronic Industry Association (EIA). Student, instructor, and employment supervisor jointly develop learning outcomes. Instructor and employment supervisor jointly evaluate student. (May be repeated for a maximum of 6 credits.) 1-3cr., 75hr./cr.

298 Special Projects in Electronic Technology
Prereq: ETRO 105, 130, 140, and 201, and MATH 107 or 135 or higher, or consent.
Introduces special topics in electronic and digital computer technology. Creates, designs, and builds an electronic capstone student project under guidance of the instructor. Provides students the opportunity to gather the required schematics, components, and devices for the project. Allows option to repair or restore an existing electronic device. Requires the student meet each week with instructor. 4cr., 6hr. lect./lab

305 Engineering Computing
Prereq: ICS 111 with grade C or better, or consent.
Coreq: MATH 219 and PHYS 219
Studies computer programming to solve electronics and optical system problems. Uses software programming applications, technical databases, image processing, and other scientific and engineering software tools. Reinforces mathematical concepts useful in the study of engineering technology. Utilizes the capabilities of software such as MATLAB and its applications to visualize solutions to technical and engineering problems. Includes hands-on engineering computing examples to demonstrate programming skills. 3cr., 3hr. lect.

310 Applied Robotics
Prereq: ETRO 205 and 305, MATH 219 or 232, and PHYS 219, all with grade C or better, or consent.
Introduces robotics programming and includes robotic applications for multifunction part manipulation and motion with stepper and servo-motors. Studies topics related to robotic design including robotic vision, motion planning, sensing and sensors, actuators, navigation systems, mobility, and forward and inverse kinematics. Provides laboratory hands-on applications of concepts and theories. 3cr., 4hr. lect./lab

320 Intermediate Optics
Prereq: PHYS 105 or higher and ETRO 112 and 161, all with grade C or better, or consent.
Studies engineering technology concepts of applied optics. Uses the wave approach to describe and demonstrate the mechanisms and properties of optics systems. Utilizes state of the art optical design software such as Zemax. Studies practical examples of modern optical engineering 4cr., 6hr. lect./lab

350 Power Systems
Prereq: ETRO 360 and 370, both with grade C or better, or consent.
Studies the basic principles of electromechanical energy conversion: single and three-phase circuits, transformers, three-phase induction and synchronous machine, DC machine, AC including magnetic circuits, and poly-phase circuits. Demonstrates energy management systems and efficiency concepts from engineering technology. Studies power generation and transmission system. Utilizes computer programming and modeling. Includes laboratory exercises and inquiry based-activities. 3cr., 4hr. lect./lab
360  Signals and Systems  
Prereq: MATH 219 or 232, PHYS 219, ETRO 305 and 320, all with grade C or better, or consent.
Studies signal and system classifications, operations on signals, time-domain analysis, impulse response and stability. Introduces frequency-domain response using Fourier series, Fourier transform, and Laplace transform; discrete Fourier series and transform; and sampling. Develops the analytical tools and techniques needed for the design and analysis of discrete-time and continuous-time linear systems. Provides laboratory hands-on applications of concepts and theories. 4cr., 6hr. lect./lab

370  Optoelectronics  
Prereq: MATH 219 or 232, PHYS 219, ETRO 305 and 320, all with grade C or better, or consent.
Studies light detection using photovoltaic and photoconductive detectors, and phototransistors. Studies light generation using light emitting diodes and laser diodes. Charactizes and troubleshoots optoelectronic devices such as: LED’s, laser diodes, photodiodes, phototransistors, photoresistors, avalanche photodiodes, quad cells, and linear displacement devices. Includes laboratory experiments and inquiry-based activities, and provides practical experiences of the technical workplace. 3cr., 4hr. lect./lab

415  Project Management  
Prereq: ETRO 440 or 475, all with grade C or better, or consent. Coreq: ETRO 497
Introduces projects and project management. Emphasizes organization, project requirements, risk mitigation, planning, problem solving, implementation, comparisons and budgeting. Overviews effective methods for interfacing individual outputs within larger projects. Utilizes project management software tools. Applies technical writing, formal and informal communication and laboratory practices in the context of typical workplaces. Covers organizations, hierarchies, team structures, collaboration methodology and funding mechanisms as it relates to Engineering Technology career paths. Supports specific applications to the Capstone Project. Develops a career plan within potential project types, structures, and funding opportunities in the Hawai‘i workforce. 3cr., 4hr. lect./lab (CO)

440  Remote Sensing  
Prereq: ETRO 305 and 320, MATH 219 or 232, PHYS 219, all with grade C or better, or consent.
Applies radiometric and photometric measurement concepts: propagation, irradiance, radiance, radiant intensity, luminance, radiant exittance. Calibrates and characterizes remote sensing data and data analysis techniques. Covers the interaction between electromagnetic radiation and matter. Investigates the effects of the atmosphere on light propagation and remote sensing experiments. Includes laboratory exercises and inquires utilizing advanced / novel instruments. Covers system design, tolerancing, implementation, alignment calibration and characterization. Utilizes software tools to explore instrumental origins of measurement, precision, accuracy and origins of noise. Develops ability to communicate findings orally and in written reports. 3cr., 4hr. lect./lab (CO)

450  Signal Processing  
Prereq: ETRO 360 with grade C or better.
Introduces digital signal processing, discrete-time signals and systems, z-transform, linear shift-invariant systems, discrete Fourier transform (DFT) and fast Fourier transform (FFT) algorithms, and design of digital filters. Provides laboratory hands-on applications of concepts and theories. 3cr., 3hr. lect.

475  Advanced Instrumentation  
Prereq: ETRO 305 and 320, MATH 219 or 232, PHYS 219, all with grade C or better, or consent.
Covers imaging, spectroscopic and polarimetric optical techniques in specific applications. Investigates and documents remote sensing systems, hardware, fabrication, detectors, active / passive illumination and software mechanical control. Includes laboratory exercises and inquires utilizing advanced / novel instruments. Covers system design, tolerancing, implementation, alignment calibration and characterization. Utilizes software tools to explore instrumental origins of measurement, precision, accuracy and origins of noise. Develops ability to communicate findings orally and in written reports. 3cr., 4hr. lect./lab (CO)

497  Capstone Project I  
Prereq: ETRO 310, 360 and 370, all with grade C or better.
Utilizes and demonstrates the tools, skills, and understanding developed during the engineering technology program. Focuses on planning and development of an engineering project which includes project documentation, formal project report writing, oral defense of the project, and project demonstration. Includes analyzing, designing, prototyping, synthesizing, troubleshooting, and testing a device, subsystem or complete system to create a useful project or service. 3cr., 4hr. lect./lab
Energy (ENRG)

C. Atay, A. Carson

20B Energy Conservation in the Home
Covers techniques for conducting an energy audit of the home to identify areas of energy loss or waste, including water heaters, ceiling and wall insulation, major and minor appliances, window reflective films, roof overhang, and window shading. 1cr., 15hr. lect./lab

20C Energy Conservation in the Condominium
Covers techniques for conducting an energy audit of the condo unit and facility to identify areas of energy loss or waste, including water supply systems, air conditioning, infiltration and exfiltration system, insulation, and windows. 1cr., 15hr. lect./lab

101 Introduction to Sustainable Technology
Prereq: ENG 19 with grade C or better or placement at least ENG 22, and MATH 18 or placement at least MATH 82, or consent. Recommended: ICS 101 or BUSN 150, and placement at ENG 100. 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. 3cr., 3hr. lect.

102 Energy Management Systems
Prereq: ENRG 101 (or concurrent), or consent. Introduces methods for meeting long term energy conservation, identifies and explores alternative monitoring and control systems and local energy efficient devices, including demand-side management of conventional gas and electric power as well as analysis of available new and retrofitted energy systems and their place in the integrated resource planning program in Maui County. 3cr., 3hr. lect.

103 Energy Production Systems
Prereq: ENRG 101 (or concurrent), or consent. Introduces theoretical concepts and practical applications of sustainable energy systems. Develops knowledge of photovoltaic, thermal, wind, hydro, ocean thermal, fossil, ocean wave, and absorption systems, with emphasis on solutions for residential and commercial applications in Hawai‘i. 3cr., 3hr. lect.

104 Energy Storage and Control
Prereq: ENRG 101 (or concurrent), or consent. Introduces theoretical concepts and practical application of energy storage and control systems. Develops knowledge of batteries, thermal energy storage, pumped hydro, flywheel technology, and phase change storage. Discusses control, monitoring, testing, and safety equipment for energy storage systems, with emphasis on solutions for residential and commercial applications in Hawai‘i. 3cr., 3hr. lect.

105 Biomass Energy Processes
Prereq: ENRG 101 (or concurrent), or consent. Introduces theoretical concepts and practical applications of methods for meeting long-term energy needs on Maui and in the State of Hawai‘i through the utilization of biomass to produce energy and environmentally friendly by-products. 3cr., 3hr. lect.

193v Internship in Sustainable Technology
Prereq or coreq: ENRG 101, 102, 103, 104, or 105, and consent. Recommended: ENG 100, and ICS 101 or BUSN 150. Introduces student to the workplace on a job within the student’s area of interest and preparation. Student and instructor jointly develop learning outcomes, and the instructor and the employment supervisor jointly perform evaluation. (May be repeated for a maximum of 8 credits.) 1-4cr., 75hr. supervised work per credit

English (ENG)

E. Armstrong, M. Domenech, E. Engh, T. Marmack, L. Nagle

15 English Language Fundamentals
Prereq: Placement for English Language Fundamentals, or consent. Develops fundamental writing, reading communication and study skills. (A-F, N, W grades only.) 3cr., 3hr. lect.
102 College Reading Skills
Prereq: ENG 21 with grade C or better, or placement at ENG 100 or 102, or consent.
Aims to develop higher powers of comprehension, recall, interpretation, perception, and appreciation. Emphasizes improved study skills, depth efficiency, and discrimination in reading. Develops flexibility of speed adjusted to the material and purpose of reading. Develops the interest and power to plan a self-improvement program for continued growth in reading at mature levels. This course is intended for students who are reading at or above their grade level and who wish to improve skills of comprehension and critical thinking. 3cr., 3hr. lect.

104 Introduction to Creative Writing
Prereq: ENG 100 with grade C or better, or consent.
Explores the principles and practice of creative writing through readings and composition in several major genres. 3cr., 3hr. lect. (HE, DA)

106 Report Writing
Prereq: ENG 22 or 55 with grade C or better, or placement at ENG 100, or consent.
Practices organization of factual material and objective writing for the purpose of writing reports and technical articles. Develops ability to write clearly, accurately, and concisely. Reviews basic grammar. Improves technical vocabulary usage. 3cr., 3hr. lect.

209 Business & Managerial Writing
Prereq: ENG 100 with grade C or better, or consent.
Focuses on the skills needed for effective business and managerial written communication. Emphasizes informative, analytical, persuasive, evaluative, and collaborative writing. Gives practice in writing memos, business letters, directives and instructions, short reports, and formal research reports. 3cr., 3hr. lect. (DL)

210 Research Writing
Prereq: ENG 100 with grade C or better, or consent.
Practices inventing, developing, organizing, and writing complex theses and analyses. Emphasizes critical thinking and research. 3cr., 3hr. lect. (DL)

250 American Literature
Prereq: ENG 100 with grade C or better, or consent.
Studies major works of American fiction, non-fiction, drama, and poetry. 3cr., 3hr. lect.
Note: These courses, ENG 251-256 and ENG 257EFR, satisfy the 6-credit requirement for sophomore literature at the University of Hawai‘i, a prerequisite for upper division English courses. (CO, DL)

251 Major Works of British Literature to 1800
Prereq: ENG 100 with grade C or better, or consent.
Studies major works of British fiction, non-fiction, poetry, and drama from the Middle Ages to 1800. 3cr., 3hr. lect. (CO, DL)

252 Major Works of British Literature after 1800
Prereq: ENG 100 with grade C or better, or consent.
Studies major works of British fiction, non-fiction, drama, and poetry from 1800 to the present. 3cr., 3hr. lect. (CO, DL)

253 World Literature
Prereq: ENG 100 with grade C or better, or consent.
Studies and analyzes internationally recognized literary works of major world cultures (Eastern) from ancient times to present. 3cr., 3hr. lect. (CO, DL)

254 World Literature (Western)
Prereq: ENG 100 with grade C or better, or consent.
Studies and analyzes literary works of Western cultures from ancient times to present. 3cr., 3hr. lect. (CO, DL)

255 Types of Literature
Prereq: ENG 100 with grade C or better, or consent.
Studies, analyzes, and critiques major European and American short stories and novels. 3cr., 3hr. lect. (CO, DL)

256 Types of Literature
Prereq: ENG 100 with grade C or better, or consent.
Studies, analyzes, and critiques major works of European and American drama, biography, and poetry. 3cr., 3hr. lect. (CO, DL)

257 Themes in Literature: Special Topics
Prereq: ENG 100 with grade C or better, or consent.
Studies and analyzes universal problems in selected literary works of various types, cultures, and periods. Presents topics, which will vary with student interest and availability of faculty. 3cr., 3hr. lect. (CO, DL)

257E Themes in Literature: Literature of Hawai‘i
Prereq: ENG 100 with grade C or better, or consent.
Focuses on selected poems, legends, biographies, short stories, and novels by people of present-day Hawaiian, Polynesian, American, European, and Oriental heritage, drawn from ancient, transitional, and modern Hawaiian literature. Studies and analyzes universal problems in selected literary works. 3cr., 3hr. lect. (CO, HI, DL)

257F Themes in Literature: Women Writers on Women
Prereq: ENG 100 with grade C or better, or consent.
Studies, analyzes, and critiques poems, short stories, prose, drama, and novels written by women who focus on women personae. Explores themes of gender such as family relationships, motherhood, sexuality, women and nature, women and politics, women and spirituality, women and creativity, and myths of femaleness. Studies and analyzes universal problems in selected literary works. 3cr., 3hr. lect. (CO, DL)

257R The Bible as Literature
Prereq: ENG 100 with grade C or better, or consent.
Presents an introduction to major literary genres, styles, techniques and themes in the Old and New Testaments. Emphasizes poetry, short story, fiction, drama, history, tragedy, myth, biography, legend, parable, proverb, psalm, epic, heroic narrative, historical romance, gospel, epistle, prophetic writing, and apocalyptic writing. Studies and analyzes universal problems in selected literary works. 3cr., 3hr. lect. (CO, DL)
316  Advanced Research Writing
Prereq: ENG 209 or 210 with grade C or better, or consent. Recommended: One of the ENG 250 series: 250, 251, 252, 253, 254, 255, 256, 257, 257E, 257F, or 257R.
Provides advanced knowledge in how to plan, develop, organize, and edit writing projects with clarity and precision. Emphasizes critical thinking skills, social, ethical, and political argument, and the ability to write a variety of work, including research projects in specific fields of study using appropriate documentation styles. 3cr., 3hr. lect.

377  Colonial Literature of the Pacific
Prereq: ENG 100 with grade C or better and ENG 210 or 250, 251, 252, 253, 254, 255, or 257, 257E, 257F, or 257R with grade C or better.
Examines and researches travel journal-ism and fictional texts in the English language, written by colonial travelers to the Pacific islands in the nineteenth and early twentieth centuries about the islands and their culture. Emphasizes postcolonial theory and its application to Polynesian culture through some of the great literary voices of the period. 3cr., 3hr. lect.

330  Human Development
Prereq: ENG 22 or higher, or consent.
Studies concepts, issues, and theories of human growth and development from conception to death. Explores systems approaches to inquiry into factors affecting growth and development. 3cr., 3hr. lect. (IN, DS)

230  Child, Family, Community
Prereq: ENG 100, or placement at ENG 100, or consent.
Develops communication skills in establishing effective partnership relationships with diverse families and other adults. Introduces students to the local resources available for family referral. (Crosslisted as ED 245.) 3cr., 3hr. lect. (CO)

233  Introduction to the Aging Process
Prereq: FAMR 232, or consent.
Studies the biological, emotional, and psychological aspects of the aging process. Discusses current attitudes about older people. Enables students to recognize needs of older adults. Discusses policy and legislation affecting older people. 3cr., 3hr. lect. (IN, DS)

235  Special Needs of Older Adults
Prereq: FAMR 232 or 244, or consent.
Explores resources available to older adults. Introduces students to various agencies and programs available in the community. Enables students to recognize the needs of the older adult. Enables the student to interview and assess older adults. 3cr., 2hr. lect./2hr. lab

238  Family Resources (FAMR)
L. Stein, E. Yamashita, J. Powers
140  Guidance of Children in Group Settings
Prereq: ED 131, or consent.
Addresses positive ways to support children’s social-emotional development. Focuses on adult-child and child-child interactions and relationships. (Crosslisted as ED 140.) 3cr., 3hr. lect.

25  Ready-to-Wear Clothing Production
Explores efficient and economical techniques in fabric layout, cutting, and sewing. Offers practice in aloha shirt and blouse construction. 3cr., 2hr. lect./3hr. lab

60  Advanced Pattern Making
Prereq: FT 215, or consent.
Develops skill in making patterns for children’s and women’s apparel. Studies advanced pattern design and construction techniques using quarter and half scale pattern blocks. 3cr., 3hr. lect.

61  Advanced Pattern Drafting & Clothing Construction
Prereq: FT 215 and FT 217, or consent. Coreq: FT 60, or consent.
Explains development of a basic pattern from personal measurements. Explores flat pattern designing from illustration and individual student sketches. Emphasizes accurate pattern and garment construction to fit the figure. 3cr., 5hr. lect./lab
90 Special Topics in Fashion Technology

Provides knowledge and training in new techniques and/or specialized areas in the sewing industry that are not included in the basic fashion technology curriculum. (May be repeated without limit for credit.) 1-4cr.

Special Topic: Advanced Fashion Illustration
Prereq: FT 216, or consent.
Studies advanced illustration techniques for drawing the fashion figure. Stresses development of each student's individual style of fashion illustration. 3cr., 3hr. lect.

Special Topic: Sewing Activewear
Prereq: FT 113 and FT 115, or consent.
Provides specialized training in the design and construction techniques used in the development of active sportswear. Stresses ready-to-wear production techniques. 3cr., 5hr. lect./lab

Special Topic: Home Furnishings
Prereq: FT 25, or consent.
Provides specialized training in design, measurement and construction techniques used in the production of draperies, pillows, table linens, bed linens, slipcovers, and other home furnishings. 3cr., 5hr. lect./lab

Special Topic: Draping
Prereq: FT 215, or consent.
Introduces the fundamentals of draping on the standard dress form. Practices interpretation of design details through draping. 3cr., 5hr. lect./lab

111 Art and Design in Fashion
Surveys fashion as it relates to art and design. Line, color, balance, and proportion are studied providing guidelines to understanding fashion and how it communicates personal image to society. 3cr., 3hr. lect. (HE)

113 Clothing Construction Methods I
Introduces sewing tools and equipment. Treats selection and adjustment of basic commercial patterns and construction of clothes from these patterns to fit figures. 3cr., 5hr. lect./lab

115 Clothing Construction Methods II
Prereq: FT 113, or consent.
Explores custom sewing techniques using various kinds of fabrics. Emphasizes accuracy and neatness in pattern alteration and garment construction. 3cr., 5hr. lect./lab

125 Fashion Show Production
Provides basic information and practical experience in the preparation and production of a fashion show. (May be repeated for a maximum of 9 credits.) 1cr., 2hr. lect./lab (HE)

216 Fashion Design & Sketching
Prereq: FT 111, or consent.
Introduces basic techniques for drawing fashion figures. Treats use of pen and ink, and water colors. Explains sketching the design. 3cr., 3hr. lect. (HE)

217 Flat Pattern Making II
Prereq: FT 113, or consent. Coreq: FT 215.
Explores garment development using the flat pattern method. 3cr., 5hr. lect./lab (HE)

Filipino (FIL)

101 Beginning Filipino I
Introduces speaking, listening, reading, and writing skills of basic Tagalog. Includes the following: (a) the basic structures of Tagalog; (b) language commonly used in daily situations; and, (c) different aspects of Philippine cultures. 4cr., 4hr. lect. (AP, HSL)

102 Beginning Filipino II
Continues FIL 101. Includes speaking, listening, reading, and writing skills of basic Tagalog. 4cr., 4hr. lect. (AP, HSL)

Food Science & Human Nutrition (FSHN)

185 Food Science and Human Nutrition
Prereq: ENG 22 with grade C or better, or placement at ENG 100, or consent.
Integrates natural science concepts basic to the study of human nutrition. Emphasizes nutrient requirements of healthy individuals, nutrient categories and characteristics, physiological functions, and food sources. Includes review and adaptation of dietary practices to reflect current nutritional issues. 3cr., 3hr. lect. (IN, DB)

285 The Science of Human Nutrition
Prereq: ENG 22 with grade C or better or placement at ENG 100, and MATH 18 with grade C or better, or placement at least MATH 82, or consent.
Integrates basic concepts of science with the study of human nutrition. Introduces nutrients and what food and nutrients do for humans. Looks at how healthy people can best get the amounts of nutrients and food they need throughout their
lifetime. Studies how people and the environment change nutrient content. 3cr., 3hr. lect. (IN, DB)

286  Sports Nutrition
Prereq: FSHN 185, or consent.
Introduces nutritional concerns of the athlete in relation to sports performance. Covers the carbohydrate, fat, protein, water, and vitamin/mineral requirements of the athlete and how to make wise food choices. Looks at fad diets, facts and fallacies about supplement use, pre- and post-event meals, and body weight and composition. Reviews the relationships among nutrition, exercise, and health. 3cr., 3hr. lect. (Formerly FSHN 290.) (DP)

Geographic Information Systems (GIS)

150  Introduction to GIS/GPS
Prereq: ICS 101 or BUSB 150 either with grade C or better, or consent. Recommended: Familiarity with computer databases.
Introduces applications of geographic information systems (GIS) with a special emphasis on using ArcView GIS. Includes database construction and techniques for spatial data manipulation, analysis, and display. Teaches use of global positioning system (GPS). Explores cross-disciplinary applications in the natural and social sciences. (Cross-listed as ICS 150.) 4cr., 6hr. lect./lab (EA)

180  GIS in Ecosystem Management
Prereq: GIS 150/ICS 150 with grade C or better, or consent.
Uses global positioning system (GPS) technologies and advanced geographic information system (GIS) principles for data collection and analysis. Applies GIS techniques to develop geodatabases and computer generated map layers and for specific sites. Evaluates resource management decisions for natural ecosystem conservation and habitat restoration projects. 4cr., 6hr. lect./lab (EA, EL)

Geography (GEOG)

101  The Natural Environment
Surveys the natural environment: weather, climate, soil, vegetation, and landforms, with emphasis on Hawai’i. Lab optional. 3cr., 3hr. lect. (EA, DP)

101L  The Natural Environment Laboratory
Prereq: GEOG 101 (or concurrent), or consent.
Introduces the geographer’s tools: globes, atlases, maps, and aerial photographs. Uses laboratory investigation techniques to understand concepts of physical geography. Special emphasis on Hawai’i and on human modification of the environment. 1cr., 3hr. lab (EA, EL, DY)

102  World Regional Geography
Prereq: ENG 22 with grade C or better, or placement at ENG 100, or consent.
Surveys the world’s major cultural regions. Explores economic, environmental, social, and political conditions from a geographical perspective. 3cr., 3hr. lect. (FGB)

122  Geography of Hawai’i
Prereq: ENG 22 with grade C or better, or placement at ENG 100, or consent.
Surveys the Hawaiian Islands through the lens of geographic enquiry. Introduces the unique characteristics of the natural and cultural landscapes of Hawai’i. 3cr., 3hr. lect. (CO, HI)

151  Geography in Contemporary Society
Prereq: ENG 22 with grade C or better, or placement at ENG 100, or consent.
Introduces elements of population, economic, and cultural geography. Includes urban studies and resource management. Explores applications to contemporary issues of developed and less developed countries. 3cr., 3hr. lect (CO)

Geology & Geophysics (GG)

D. Grooms

101  Introduction to Geology
Prereq: ENG 22 or 55 with grade C or better or placement at ENG 100, and MATH 18 or placement at least MATH 82, or consent.
Presents principles of physical geology including the composition and structure of the earth, its evolution over geologic time, and processes shaping the earth’s crust including continental drift, volcanism, earthquakes, and erosion. Field trips. 4cr., 3hr. lect./3hr. lab, 1 all-day field trip (EA, EL, DP, DY)

103  Geology of the Hawaiian Islands
Surveys Hawaiian geology and geologic processes. Includes origin of the Hawaiian Islands, volcanism, rocks and minerals, landforms, stream and coastal processes, landslides, earthquakes and tsunamis, groundwater, and geologic and environmental hazards. Field trips. 3cr., 3hr. lect. (EA, HI, DP)
101 Elementary Hawaiian I
Introduces speaking, reading, and writing elementary Hawaiian. Treats structural points inductively. Devotes four out of five hours to drill and practice. Daily lab work determined by individual need. 4cr., 5hr. lect./lab (IN, HI, HSL)

102 Elementary Hawaiian II
Prereq: HAW 101, or consent.
Continues HAW 101 instruction to write, speak, and read Hawaiian. Devotes four out of five hours to drill and practice. Daily lab work determined by individual need. 4cr., 5hr. lect./lab (IN, HI, HSL)

104 Hawai'i: Language Through Hula
Introduces conversational Hawaiian language through the medium of dance (hula) and song. Requires study, memorization, and close examination of Hawaiian vocabulary and simple sentence structure. (Formerly HAW 100.) 3cr., 3hr. lect. (IN, HE, HI, DA)

201 Intermediate Hawaiian I
Prereq: HAW 102, or consent.
Continues HAW 102. Uses advanced Hawaiian grammatical structure with emphasis placed on speaking Hawaiian. Practices translation of materials from classical Hawaiian literature. Devotes two out of five hours to drill and practice. Daily lab work determined by individual need. 4cr., 5hr. lect./lab (IN, HI, HSL)

202 Intermediate Hawaiian II
Prereq: HAW 201, or consent.
Introduces further advanced Hawaiian grammatical structures with emphasis placed on speaking Hawaiian. Drills translating materials from classical Hawaiian literature. Devotes two of five hours to drill and practice. Daily lab work determined by individual needs. 4cr., 5hr. lect./lab (IN, HI, HSL)

221 Hawaiian Conversation
Prereq: HAW 202, or consent.
Practices systematic control of spoken Hawaiian. Further develops vocabulary for accurate, mature expression. 3cr., 3hr. lect. (CO, HI, HSL)

261 Hawaiian Literature in Translation
Prereq: ENG 100 with grade C or better, or consent.
Surveys Hawaiian literature, including prose narration and poetry with reference to Polynesian and world themes and forms from pre-contact to discovery. Introduces a full range of Hawaiian stories, chants, poems, songs, and sayings which have been translated into English. 3cr., 3hr. lect. (CO, HI, DL)

262 Hawaiian Literature
Prereq: HAW 202 and 261 both with grade C or better, or consent.
Surveys and analyzes the literary genres from the Bible to kanikau. Features the selected works of American missionaries and Hawaiian authors emphasizing the period following discovery (1778-79), into the 19th and 20th centuries. Course uses Hawaiian language texts. Course conducted in English. 3cr., 3hr. lect. (CO, HI, DL)

Hawaiian Studies (HWST)
K. Dukelow, K. Ka'eo, S. K. Raymond

100B Introduction to Hawaiian Culture: Communication - Basic Language and Phrases
Develops correct pronunciation and usage of basic Hawaiian language and phrases. 1cr., 1hr. lect. (CO, HI, DH)

100C Introduction to Hawaiian Culture: Worldwide - Values, Folklore, and Cultural Practices
Provides an orientation to traditional and contemporary Hawaiian practices and values. 1cr., 1hr. lect. (CO, HI, DH)

100D Introduction to Hawaiian Culture: Landscape - Historical Events, Physical Features, and Unique Flora of Maui and Hawai'i
Explains important historical events of Maui and Hawai'i and identifies their unique flora and fauna, physical features, and scenes. 1cr., 1hr. lect. (CO, EA, HI, DH)

107 Hawai'i: Center of the Pacific
Prereq: ENG 22 with grade C or better, or placement at ENG 100, or consent.
Introduces the unique aspects of Hawai'i and Hawaiian culture in relation to the larger Pacific, including geography, origins, language, religion, land, art, and history. 3cr., 3hr. lect. (AP, CO, HI, DH)

111 The Hawaiian 'Ohana
Prereq: HAW 101, or consent.
Examines culture of Hawaiian people as expressed in home and family. Provides understanding of the family as the basis of larger Hawaiian society. Compares and contrasts both ancient and modern aspects of the Hawaiian family. Uses Hawaiian terminology. 3cr., 3hr. lect. (CO, HI, DH)

213 Hawaiian Ethnozoology
Prereq: HAW 101, or consent.
Surveys and identifies Hawaiian fishes, birds, and other creatures, and their place in Hawaiian culture. Explores traditional methods of capture, practical uses, and conservation techniques. Uses Hawaiian terminology. 3cr., 3hr. lect. (EA, HI, DH)

231 Hawaiian Culture
Studies the culture of ancient Hawai'i. Examines values, basic social relationships, religion, customs, and aspects of material culture. Provides an awareness and understanding of modern Hawaiian cultural pluralism. 3cr., 3hr. lect. (CO, HE, HI, DH)

262 Pana Maui: Maui's Sacred Hawaiian Places
Prereq: HWST 107 or 111 or 270; and HAW 102; or consent.
Examines the sacred Hawaiian places of Maui, including accounts of mythical heroes, heiau, fishponds, wind and rain names, and their metaphorical value to ancient and modern Hawaiian culture. Uses Hawaiian terminology. 3cr., 3hr. lect. (CO, HE, HI, DH)

270 Hawaiian Mythology
Prereq: HWST 107 or HAW 102, or consent.
Surveys the gods, aumakua, kupua, mythical heroes, heroines, and their kinolau as the basis of traditional Hawaiian metaphor. 3cr., 3hr. lect. (CO, HE, HI, DH)
205 Hawaiian Music in Action  
A Mele`Aina  
E Mele Pili Kanaka  
I Other  
Prereq: HAW 102, or consent.  
Teaches Hawaiian songs as a means of strengthening knowledge of language, poetry, and culture. Conducted primarily in Hawaiian. (May be repeated for credit if subletters are different.)  
2cr., 2hr. lect./lab (HE, HI, DA)  

207 Malama Ahupua`a: Resource Management  
Prereq: HWST 107 with grade C or better, or consent.  
Examines the ahupua`a system: its mythologies, place names, history, poetry, and early documents of the Hawaiian nation as it was conceptualized by the ancient Hawaiians. Explores the relevance of the ahupua`a system in modern society. 3cr., 3hr. lect.  

211 Hawaiian Ethnobotany  
Identifies endemic, indigenous, and Polynesian introduced flora of Hawai`i. Examines the many uses of Hawai`i`s flora by the indigenous people. Reveals the relationship of gods/plants/man, and connects belief and practices with the intentional migration of specific plants. (Crosslisted as BOT 105). Meets Social Science requirement, not Natural Science requirement. 3cr., 3hr. lect.  

Health (HLTH)  
N. Johnson  

31 First Aid & Safety  
Introduces standard first aid procedures. Describes immediate care given in case of an accident, sudden illness, or other medical emergency. Explains procedures to stop bleeding, treat poisoning, restore breathing, immobilize broken bones, and administer CPR. 1cr., 1hr. lect.  

101 Health Navigator  
Prereq: ENG 19 with grade C or better, or placement at least ENG 22, or consent.  
Recommended prep: Basic Internet Skills  
Prepares people to navigate the health and social services systems; provides a knowledge foundation and practical skills base. Prepares the navigator to assist patients in various systems in search of appropriate diagnosis, treatment, and resolution. 3cr., 3hr. lect.  
(Crosslisted as HSER 101).  

118 Therapeutic Interpersonal Skills  
Prereq: ENG 19 with grade C or better or placement at least ENG 22, or consent.  
Provides students with the opportunity to assess themselves, their values, and related professional attitudes and behaviors. Characteristics of effective helpers, appropriate communication techniques, assertiveness skills, and ethical, legal and cultural issues are examined. These concepts are applied in community-based settings that involve individuals and groups who require intervention services. 3cr., 3hr. lect.  

119 Therapeutic Activities  
Prereq: ENG 19 with grade C or better or placement at least ENG 22, or consent.  
Focuses on entry-level basic crafts and client management techniques utilized in Occupational Therapy or Activity Programs. Commonly utilized crafts will be demonstrated and fabricated, including techniques for adapting and grading. Basic client management techniques, wheelchair handling, transfers and safety considerations will be taught. Methods of instruction will be taught. Prepares therapeutic activity aides to work under supervision of a registered Occupational Therapist. 2cr., 4hr. lect./lab  

123 Practicum in Physical Therapy Support Skills  
Prereq: Certificate of Competence for Therapeutic Activity Aide I, or consent.  
Provides basic standard patient care skills and training in the use of common techniques such as transfers, positioning, therapeutic exercise, mobility and assistive devices. Values that will be promoted include a) family-centered care, b) cultural sensitivity, c) age-appropriate activities, d) functional skills, and e) collaborative teamwork. Prepares Therapeutic Activity Aides to work under the supervision of a registered Physical Therapist. 2cr., 4hr. lect./lab  

125 Survey of Medical Terminology  
Prereq: ENG 19 with grade C or better or placement at least ENG 22, or consent.  
Surveys medical terminology including: prefixes, suffixes, and word roots; pronunciation, spelling and definition of selected medical words dealing with all human body systems; commonly used abbreviations; and use of the medical dictionary. 1cr., 1hr. lect.  

126 Introduction to Speech/Language Pathology Support Skills  
Prereq: Certificate of Competence for Therapeutic Activity Aide I  
Provides a theoretical understanding of speech, language, and hearing development including delay/disorder in adults and children in home and community settings; supports families, parents and caregivers. Students learn normal development of communication behavior, the nature of communication disorders, and the interaction of speech pathology and audiology with other allied health fields. Values to be promoted include a) family-centered care, b) cultural sensitivity, c) age-appropriate activities, d) functional skills, and e) collaborative teamwork. 3cr., 3hr. lect.
127 Practicum in Speech/Language Pathology Support Skills
Prereq: Certificate of Competence for Therapeutic Activity Aide I
Provides training and practice in basic standard patient care in the field of speech/language pathology, as well as an overview of theory, development, observation and reporting change in an individual’s condition. Prepares Therapeutic Activity Aides to work under the supervision of a registered Speech/Language Pathologist. Values to be promoted include a) family-centered care, b) cultural sensitivity, c) age-appropriate activities, d) functional skills, and e) collaborative teamwork. 2cr., 4hr. lect/lab.

128 Capstone for Therapeutic Activity Aide II
Prereq: Certificate of Competence for Therapeutic Activity Aide I
Provides the opportunity to demonstrate the tools and understanding developed during the Therapeutic Activity Aide II program. Students will create a portfolio and presentation to provide evidence of student learning and growth. 1cr., 1hr. lect.

150 Introduction to the Study of Disease
Prereq: ENG 19 with grade C or better or placement at ENG 22, or consent.
Introduces basic concepts and characteristics of the disease processes. Discusses diseases related to specific body systems. 1cr., 3hr. lect. for 5 wks.

159 Exercise Physiology
Studies impact of exercise on the structure and functioning of the human body. Looks at various forms of exercise, e.g., aerobic, anaerobic, strength, and endurance training. Studies diet and exercise in terms of energy requirements and fuel sources, body composition, and weight control. Evaluates impact of exercise on chronic disease risk factors. 4cr., 3hr. lect./3hr. lab

196 Health: Principles of Well-Being
Prereq: ENG 19 with grade C or better or placement at least ENG 22, or consent.
Emphasizes physiological well-being and methods of preventing chronic illness through principles of maintaining wellness. Studies theories of emotional and physical wellness and applies them to the student’s life. Studies exercise and nutrition along with mental health and their interdependence. 3cr., 3hr. lect.

History (HIST)
B. Kikuchi

151 World Civilization I
Prereq: ENG 22 with grade C or better, or placement at ENG 100, or consent.
Surveys spread of civilization from its Near Eastern origins, with emphasis upon cultural contributions from Egypt, Mesopotamia, India, China, Japan, Greece, Rome, and Post-Roman Europe up to 1650. 3cr., 3hr. lect. (FGA)

152 World Civilization II
Prereq: ENG 22 with grade C or better, or placement at ENG 100, or consent.
Treats development of civilization since 1650 with emphasis upon the expansion of Western influence throughout the world, and upon the political, economic, and cultural revolutions in the North Atlantic Community, Africa, and Asia. 3cr., 3hr. lect. (FG8)

241 Civilizations of Asia I
Prereq: ENG 100 (or concurrent), or consent.
Interprets and compares the development and interaction of the political, economic, and cultural elements in the major civilizations of Asia from earliest times to contact with the West. 3cr., 3hr. lect. (AP, CO, DH)

242 Civilizations of Asia II
Prereq: ENG 100 (or concurrent), or consent.
Surveys the impact of Western civilization upon major civilizations of Asia and the Asian response to this impact. 3cr., 3hr. lect. (AP, CO, DH)

253 Contemporary World History
Prereq: HIST 152, or consent.
Studies contemporary world history from World War II to the present. Emphasizes the historical background of major political, social, intellectual, and economic events leading to a better understanding of world issues today. 3cr., 3hr. lect. (AP, CO, DH)

281 Introduction to American History
Prereq: ENG 100 (or concurrent), or consent.
Develops understanding of the progress of American culture up to the Civil War, an insight into America’s heritage, and a sensitivity to its ideals and realities. 3cr., 3hr. lect. (CO, DH)

282 Introduction to American History
Prereq: ENG 100 (or concurrent), or consent.
Develops understanding of the progress of American culture since the Civil War, an insight into America’s heritage, and sensitivity to its ideals and realities. 3cr., 3hr. lect. (CO, DH)

284 History of Hawai’i
Surveys the economic, political, and social history of Hawai’i from earliest times to the present. Emphasizes the history of Hawai’i since the time of European contact. 3cr., 3hr. lect. (CO, HI, DH)

288 History of the Pacific Islands
Prereq: ENG 22 with grade C or better, or placement at ENG 100, or consent. Recommended: HIST 152, or ANTH 200.
Surveys the cultural areas of the Pacific from pre-contact to present day. Covers prehistoric migrational patterns, historical movements, and present day distributions, including western colonization and current problems. (Crosslisted as ANTH 235.) 3cr., 3hr. lect. (AP, CO, DH)

Hospitality & Tourism (HOST)
L. Liu, L. Peros

20 Orientation to the Travel Industry
Prereq: ENG 15, or placement at least ENG 19, or consent. Recommended: BUSN 121.
Provides an overview of the travel industry and examines employment opportunities in the field of hospitality and tourism. 3cr., 3hr. lect.

101 Introduction to Hospitality & Tourism
Prereq: HOST 20 with grade C or better, and ENG 19 with grade C or better or placement at least ENG 22, or consent.
Provides an overview of the travel industry and related major business components. Analysis of links between hotel, food, transportation, recreation, and other tourism-related industries will be addressed. 3cr., 3hr. lect.
150  Housekeeping Operations
Prereq: HOST 101 (or concurrent), and ENG 19 with grade C or better or placement at least ENG 22 or 55, or consent.
Studies the practical application of professional housekeeping operations including the functions of management, interdepartmental relationships, and preventive maintenance practices required to assure quality service.
3cr., 3hr. lect./disc.

152  Front Office Operations
Prereq: HOST 101 (or concurrent), and ENG 19 with grade C or better or placement at least ENG 22 or 55, or consent.
Studies the philosophy, theory, equipment, and current operating procedures of a hotel front office. Concentrates on the human relation skills necessary for effective guest and employee relations and the technical skills necessary to operate a manual, mechanical or computerized front office operation.
3cr., 3hr. lect./disc.

154  Food & Beverage Operations
Prereq: HOST 101 (or concurrent), and ENG 19 with grade C or better or placement at least ENG 22 or 55, or consent.
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. Provides practical applications to effectively manage resources for food and beverage operations.
3cr., 3hr. lect./disc.

192v  Hospitality Internship I
Prereq: Hospitality and Tourism major; department approval; or consent.
Provides 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.
3cr., 1hr., 15min. weekly seminar

250  Hospitality Sales & Marketing
Prereq: CA in Hospitality & Tourism, or consent.
Provides students with basic knowledge and practical experience to develop strategic and operating marketing plans for hospitality properties. Emphasizes the marketing orientation as a management philosophy that guides the design and delivery of guest services. Examines the dynamic relationship between hospitality marketing and daily operations.
3cr., 3hr. lect./disc.

260  Hospitality Law
Prereq: CA in Hospitality & Tourism, or consent.
Provides an awareness of the rights and responsibilities that the law grants to or imposes upon a hotelkeeper. Illustrates the possible consequences of failure to satisfy legal obligations.
3cr., 3hr. lect./disc.

270  Hospitality Management
Prereq: CA in Hospitality & Tourism, or consent.
Introduces, examines, and explains the basic principles of supervision and management in the hospitality industry. Focuses on the elemental roles, functions, and responsibilities shared by supervisors and managers. Explores rudimentary skills and techniques that must be employed in a day-to-day work setting to achieve positive, productive results.
3cr., 3hr. lect./lab/disc.

293v  Hospitality Internship II
Prereq: C.A. in Hospitality & Tourism and HOST 192v, or consent.
Introduces the student to the work place within the student’s major area of interest. Provides work practicum which emphasizes hospitality industry employability skill objectives. Requires workplace-based project for which the student evaluates and prepares a written proposal as a solution to specific job-related issues. Student, instructor, and employment supervisor jointly develop learning outcomes. Instructor and employment supervisor jointly evaluate student. (May be repeated for a maximum of 3 credits.) 1-3cr., 75hrs./cr.

110  Introduction to Human Services
Prereq: ENG 19 with grade C or better, or placement at least ENG 22, or consent. Recommended prep: Basic Internet Skills
Introduces the nature of human service programs. Studies federal, state, and local human service responsibilities. Includes talks by agency representatives and field trips to agencies.
3cr., 3hr. lect. (CO)

111  Community Action
Prereq: ENG 19 with grade C or better, or placement at least ENG 22, or consent.
Develops a concept of human needs and examines how social institutions and communities provide for such needs. Views selected social problems in community settings and how communities, agencies, and organizational structures function to deal with them. Introduces social-cultural considerations and community action strategies. Participants will identify a community problem/need and develop and implement a proposal for action.
3cr., 3hr. lect. (CO)

130  Introduction to Youth Practitioner
Prereq: ENG 19 with grade C or better, or placement at least ENG 22, or consent.
Introduces the core skills needed by youth practitioners. Focuses on basic communication skills, growth and development of adolescents, family and cultures and their roles in development, and youth with special needs.
3cr., 3hr. lect.
256 Dynamics of Family Violence
Prereq: ENG 100, or consent.
Recommended: HSER 110.
Provides an in-depth study of the problems, dynamics, and effects of family violence and examines current societal responses. Includes the history of domestic violence, contributing cultural conditioning, and socialization factors. Reviews partner, child, and elder abuse within the family and multi-generational effects. Examines legal issues, prevalence and outcome data, contemporary theory, and best-practices for intervention nationally and in our community. 3cr., 3hr. lect. (CO)

193v Work Practicum & Discussion in Community Service
Prereq: Permission of instructor; and HSER 110, HSER 140/248, and ENG 100.
Supervised work experience. Provides individualized in-service training in community services. Includes weekly seminar giving students opportunity to discuss practicum experiences. (May be repeated for a maximum of 12 credits. Responsibilities increase with each repeat.) 2-4cr., 1hr. disc./2.5-15hr. practicum

268 Alcohol & Drug Education
Prereq: ENG 22 with grade C or better, or placement at ENG 100, or consent.
Provides a comprehensive review of drug actions on the body and the effects of drug use in our society. Provides an understanding of chemical dependency, its assessment and various treatment modalities. 3cr., 3hr. lect. (CO)

270 Substance Abuse Counseling
Prereq: HSER 140, and ENG 22 with grade C or better or placement at ENG 100, or consent.
Provides theoretical and experiential training in the prevention, intervention, and treatment applicable to a heterogeneous substance abuse population. Identifies ethical and legal issues of working with this population. 3cr., 3hr. lect. (CO)

293v Work Practicum & Discussion in Community Service
Prereq: Permission of instructor; and HSER 110, HSER 140/248, and ENG 100. If taking course for Substance Abuse Counseling Certificate: HSER 268 and HSER 270.
Provides advanced, individualized, in-service training in community-based human services agencies. Includes weekly seminar giving students the opportunity to discuss practicum experiences. (May be repeated for a maximum of 8 credits.) 2-4cr., 1hr. lect./practicum hours vary.

140 Introduction to Techniques of Counseling & Interviewing
Prereq: HSER 110 and at least ENG 22, or consent.
Offers basic introduction to counseling processes to those working or planning to work in the helping professions including Early Childhood Education. Discusses theories and practices of counseling and interviewing individuals and groups. Gives students opportunities to practice skills through role-playing. Not intended to be preparation for counseling professionals. 3cr., 3hr. lect. (IN)

101 Beginning Ilokano I
Introduces speaking, listening, reading, and writing skills of basic Ilokano. Includes the following: (a) the basic structures of Ilokano; (b) language commonly used in daily situations; and, (c) different aspects of Philippine cultures. 4cr., 4hr. lect. (AP, HSL)
110  Intro to Computer Programming
Prereq: ICS 101 or BUSN 150, either with grade C or better, or consent.
Teaches fundamental programming concepts including sequential, selection, and repetition flow; variables and types; syntax; error types; compilation; linking; loading; and debugging. Introduces algorithms, flow charts, UML, and other analytic tools. Explains and practices problem solving and critical thinking methods. 3cr., 3hr. lect.

111  Introduction to Computer Science I
Prereq: ICS 110 with grade C or better, and MATH 82 with grade C or better or placement at least MATH 103 or 107, and ENG 19 with grade C or better or placement at least ENG 22, or consent.
Introduces problem solving using computers. Provides a background for students entering computer science, engineering, or other fields that require a background in computer programming. Teaches the basics of the computer hardware/software interfaces. Includes programs, applications, and compliers. Introduces programming concepts, algorithms, and problem solving techniques using high-level object-oriented programming languages. Meets ACM CS 1 course standards. 4cr., 4hr. lect./lab

115  Microcomputer Applications
Prereq: ICS 101 or BUSN 150, or consent. Recommended: MATH 82 and elementary word processing or typing skills.
Examines the utilization of major application packages as tools in business problem solving. Covers the following applications: a micro-computer operating system, word processing, spreadsheets, graphics, and database management systems. 3cr., 3hr. lect./lab

116  Designing for Cross-Media: Publishing for Print & Web
Prereq: ICS 101 or BUSN 150, or consent. Focuses on design and layout for cross-media publishing. Examines the interface, functions, and integration of publishing software for graphic design and production. Explains how to prepare content for publication for print, Portable Document Format (PDF), and on the web. 3cr., 3hr. lect./lab

127  127  127

150  Introduction to GIS/GPS
Prereq: ICS 101 or BUSN 150, either with grade C or better, or consent. Recommended: Familiarity with computer databases.
Introduces applications of geographic information systems (GIS) with a special emphasis on using ArcView GIS. Includes database construction and techniques for spatial data manipulation, analysis, and display. Teaches use of global positioning system (GPS). Explores cross-disciplinary applications in the natural and social sciences. (Crosslisted as GIS 150.) 4cr., 6hr. lect./lab (EA)

151C  Introduction to C Programming
Prereq: ICS 111 with grade C or better, or consent.
Introduces students to C Programming Language and an Integrated Development Environment (IDE). Develops structured programs using problem solving, algorithm development, and programming concepts using a procedural language. 3cr., 3hr. lect./lab

161  Introduction to Computer Graphics
Prereq or coreq: ICS 101 or BUSN 150, or consent.
Introduces computer graphics tools and concepts in digital image editing, illustration graphics, print and web design, and 2D and 3D animation. (Crosslisted as ART 161.) 3cr., 3hr. lect. (HE, DA)

193v  Computer Science Internship I
Prereq: ICS 111, and consent of both instructor and Co-op coordinator. Coreq: Enrollment in ECET program and one or more ECET or ETRO courses. Recommended: ETRO 101 and 105, and ENG 100.
Reflects student interest area and the availability of job stations. Offers opportunity to upgrade workplace employability. Student, instructor, and employment supervisor jointly develop learning outcomes. Instructor and employment supervisor jointly evaluate student. (May be repeated for a maximum of 3 credits.) 1-3cr., 75hrs. supervised work/cr.
200  Web Technology  
Prereq:  ICS 110 with grade C or better, or consent.
Introduces web page authoring. Creates client-side web pages using web authoring language and style sheets. Uses graphical design elements, validation, browser capability, and accessibility. Uses scripting language to add dynamic elements to web pages, client-side scripting, regular expressions, event handling, input validation, selection, repetition, and parameter passing. 3cr., 3hr. lect./lab

205  Photoshop and Illustrator  
Prereq:  ICS 101 or BUSN 150, or consent.
Introduces the basic tools and features of digital image editing, photo retouching, and color correction of images. Focuses on the fundamental drawing techniques of illustration graphics including pen tool paths, objects, and type. (Crosslisted as ART 205.) 3cr., 3hr. lect./lab (DA)

211  Introduction to Computer Science II  
Prereq:  ICS 111 with grade C or better, or consent. Recommended: MATH 135.
Reinforces and strengthens problem-solving skills using more advanced features of programming languages and algorithms, such as recursion, pointers, and memory management. Emphasizes use of data structures, such as arrays, lists, stacks, and queues. Meets ACM CS2 course standards. 3cr., 3hr. lect./lab

214  Fundamentals of Design for Print & Web  
Prereq:  ICS 101 or BUSN 150, or consent.
Introduces development principles related to graphic design terminology, tools and media, and layout and design concepts. Topics include integration of type, images, and other design elements, developing computer skills in industry standard computer programs, and study of design development pertaining to color theories, publications, and advertising. Projects will emphasize relating form to content through selection, creation and integration of typographic, digital imaging, illustrative, and design elements in print and web environments. (Crosslisted as ART 221.) 3cr., 3hr. lect./lab (DA)

251  Introduction to Unix/Linux  
Prereq:  ICS 101 with grade C or better, or consent.
Introduces the Unix/Linux operating system with emphasis on the Red Hat Linux release. Covers the history and structure of Unix/Linux, basic functions, and fundamental commands. Explores advanced topics unique to Unix/Linux system administration. Stresses the ethics and responsibilities incumbent with Super User privileges. 4cr., 4hr. lect./lab

252  Unix/Linux System Administration  
Prereq:  ICS 251 with grade C or better, or consent.
Continues exploration of the Unix/Linux operating system with an examination of the tasks and responsibilities of system administration. Examines and explores the Unix group and user hierarchy, system security, networking fundamentals, network administration, system logs, troubleshooting, application installation, and system installation and maintenance. Emphasizes the ethics and responsibilities of Unix System Administration and root user privileges. 4cr., 4hr. lect./lab

258  Programming for High Performance Clusters  
Prereq:  ICS 111 with grade C or better, or consent.
Explores programming for high performance computational clusters. Examines the algorithmic paradigms required to most efficiently and effectively create or modify code that will exploit the unique characteristics of parallel processing. Identifies the attributes common to highly parallelizable code. Develops parallel algorithms and writes implementing computer code. Tests, evaluates, and refines code to maximize performance and efficiency. 3cr., 3hr. lect./lab

261  Intermediate Computer Graphics  
Prereq:  ICS 161, 205, or 214, or consent.
Provides instruction with the tools and media, filters, compositing, techniques for project development. Provides an opportunity to integrate and utilize the cluster. 4cr., 4hr. lect./lab

272  Digital Imaging & Animation  
Prereq:  ICS 261, or consent.
Develops 2D computer graphics as elements for 3D projects. Explores digital imaging and illustration using natural media tools, filters, compositing, and source files. Outlines 3D modeling and animation concepts, tools, and techniques for project development. 3cr., 3hr. lect./lab

275  Introduction to High Performance Computing Clusters  
Prereq:  ICS 251 with grade C or better, or consent. Coreq: ICS 252.
Introduces High Performance Computing (HPC) clusters. Covers the history, technology, and structure of computational clusters, with emphasis on Beowulf-style clusters. Includes design concepts, software and hardware implementations, enabling applications, and administration. Includes algorithmic considerations and structures conducive to the development and implementation of parallelized applications. Provides experience building, configuring, and utilizing the cluster. 4cr., 4hr. lect./lab

283  Advanced Computer Graphics Design  
Prereq:  ICS 261, or consent.
Reviews the history, development, technology, and creative approaches of digital tools. Summarizes design theory. Employs graphics software to achieve concepts, content, and distinctive project solutions. Originates and manages the preproduction, production, postproduction of projects in print, web, digital imaging, illustration, and animation. Assembles projects into traditional, content, and digital portfolios. Analyzes professional issues for careers in digital media: resume, portfolio, exhibiting, personal web site, employment, and professional organization. 3cr., 3hr. lect./lab

285  Digital Media Capstone  
Prereq:  ICS 283 and approval of DM faculty.
Provides an opportunity to integrate and employ tools and knowledge developed during the Digital Media program. Evaluates design and technical skills in digital media publishing projects. Assesses internship experiences and job
market research for employment strategies. A comprehensive professional digital media publishing portfolio is required as a capstone project. 3cr., 3hr. lect./lab

293v Computer Science Internship II
Prereq: ICS 193v, or consent.
Reflects student interest area and the availability of job stations. Offers the opportunity to upgrade employment and problem-solving skills. Student, instructor, and employment supervisor develop learning outcomes. Instructor and the employment supervisor jointly evaluate student. (May be repeated for a maximum of 6 credits.) 1-3cr., 75hrs./cr.

298 Special Projects in Computer Science
Prereq: ICS 252 and ICS 275 both with grade C or better; or consent. Coreq: Determined by topic. Recommended: Determined by topic. Covers current topics in computer science. Introduces students to topics of current interest and relevant to their studies. Includes both theoretical and hands-on experience in cutting edge hardware, software, networking, operating systems, applications, and techniques. 4cr., 4hr. disc.

319 Operating Systems
Prereq: ICS 111 and ICS 200 with grade C or better, or consent.
Covers concepts, issues and design of modern operating systems. Analyzes processes and state, concurrency, resource management algorithms for memory, processors and I/O devices, protection and security. Develops case studies of popular desktop and server operating systems. Conducts laboratory projects and teaches OS installation and administration techniques. 3cr., 3hr. lect.

320 Introduction to Information Systems & E-Commerce
Prereq: ICS 115 or BUSN 151, and ICS 214, or consent.
Introduces general concepts of information systems and e-commerce. Includes key business applications, e-commerce and the Internet, system development, outsourcing, networking and data communications, data and databases, and security. Includes relevant projects. 3cr., 3hr. lect.

340 Introduction to Visual Basic
Prereq: ICS 115 or BUSN 151 either with grade C or better, or consent.
Introduces computer programming for non-computer science majors using the Visual Basic language. Includes algorithms and problem-solving, fundamental programming constructs, object-oriented design, event-driven programming, Graphical User Interface (GUI) principles, and components. 3cr., 3hr. lect./lab

352 Networks and Security
Prereq: ICS 111 and ICS 200 with grade C or better, or consent.
Provides detailed knowledge of the internet and its capabilities, explains details of HTTP, TCP/IP, ethernet, and wireless 802.11 router, switches, and NAT; network and wireless security; practical experience in designing and implementing networks. Laboratory projects teach network design and administration. Discusses intermediate level topics on computer security. Examines legal, ethical and technology issues in computer access, confidentiality, authentication, privacy and intellectual property. 3cr., 3hr. lect.

360 Database Design and Development
Prereq: ICS 319 and ICS 352 both with grade C or better, or consent.
Provides detailed knowledge of database design and development. Explains data models: relational and object oriented. Examines relational database management systems. Demonstrates database design and development using SQL. Explains client/server systems and web access to databases. 3cr., 3hr. lect.

385 Web Development and Administration
Prereq: ICS 319 and ICS 352 both with grade C or better, or consent.
Provides detailed knowledge of web page authoring. Demonstrates scripting in operating systems, web pages, server-side application integration, regular expressions, event handling, input validation, selection, repetition, parameter passing. Develops an e-commerce web site that uses a standard browser to accept user input, processes the user input with business logic, and connects to a back-end SQL database. Discusses topics in web site administration. Covers site management (operating system, web server and database installation and administration); security (cryptography, authentication, digital certificates); and content (site design, ethical and business considerations). 3cr., 3hr. lect.

418 Systems Analysis and Designs
Prereq: ICS 360 and ICS 385 with grade C or better, or consent.
Provides detailed knowledge of system specification, modeling and analysis, prototyping, hierarchical design, program design methods, cost estimation, project management, computer-aided software design. Emphasizes planning, analysis, and design phases of the Software Development Life Cycle with one model of the SDLC covered. Demonstrates learning tools and techniques for sound requirement assessment and, working as a team, produces a verified design of a web-based software product. 3cr., 3hr. lect.

420 E-Commerce Development
Prereq: ICS 340 and 385, or consent.
Provides advanced knowledge and skills for the design, construction, and implementation of an Internet based commerce site. Discusses legal, security, cultural, and policy issues. 3cr., 3hr. lect.

463 Human Computer Interaction
Prereq: ICS 320 and MATH 115, or consent.
Application of concepts and methodologies of human factors, psychology and software engineering to address ergonomic, cognitive, and social factors in the design and evaluation of human-computer systems. 3cr., 3hr. lect.

Interdisciplinary Studies (IS)
C. Shishido

103S Building College Strengths Through Culture
Teaches, infuses, and uses culture to help students successfully transition into post-secondary education by developing an understanding of personal strengths for student success. 1cr., 1hr. lect.
104B Transitions: Personal
Introduces students to college level work, strategic reasoning, communicating, and academic strategies. Helps students to develop an understanding of personal learning strengths, needs, time and resource management, and the use of relevant resources. Develops skills necessary to monitor progress and resolve problems. Introduces the creation of an individual learning portfolio and plan to support the successful transition to college. 1cr., 1hr. lect.

104C Transitions: Community
Focuses on developing the understanding that it is essential for human beings to work together. Teaches how to work as a productive member of a successful team. Develops critical thinking and problem solving skills. Teaches and practices taking responsibility in implementing a solution, and recognizing and producing quality performance and quality products. 1cr., 1hr. lect.

104D Transitions: Lifelong
Teaches students to become lifelong learners who are able to access and assess information, make judgments, and generate original ideas; apply collaborative skills to pursue individual and/or group goals; accept responsibility for their own behaviors and attitudes; and direct themselves as they strive for personal excellence. 1cr., 1hr. lect.

105 Career/Life Exploration & Planning
Prepares student for effective career/ life exploration, planning and decisions. Emphasizes self-assessment, world of work information, survey of occupational clusters and related academic preparation relevant to self-assessed interests, and values and decision-making. Students cannot take both IS 105 and IS 105B for credit toward a degree. 3cr., 3hr. lect./disc. (IN)

105B Personal Assessment
Assists students in evaluating their interests, values, abilities, lifestyles, and other factors relating to career choice. Provides students with an opportunity to develop career decision-making skills. 1cr., 15hr. lect. per semester

105C Professional Employment Preparation
Facilitates employment search by emphasizing professional techniques and standards in the preparation of application forms, resumes, cover letters, and employment interviews. (Cross listed as BUSN 166.) 1cr., 1hr. lect.

105D Working in an Organization Career Exploration & Planning
Examines case study approach to operating effectively in a government or company bureaucracy. Emphasizes topics such as “red tape,” cliques, impersonality, and frustrations. 1cr., 1hr. lect.

106 College Orientation I
Develops knowledge, skills, and attitudes associated with personal, academic, and career success. Provides overviews of college policies, procedures, and curricular offerings. Develops communication and teamwork skills. Encourages contacts with students and staff. Strongly recommended for entering students. 2cr., 2hr. lect.

107 College Orientation II
Prereq or coreq: IS 106, or consent. Integrates, practices, and applies knowledge, skills, and attitudes associated with personal, academic, and career success. Integrates and applies communication and teamwork skills. Encourages contacts with students and staff as well as community and campus service. Strongly recommended for entering students. 1cr., 1hr. lect.

150 Leadership Skill Development
Prereq: Consent. Recommended: IS 105B, or consent. Develops a clear understanding of self and personal strengths. Applies this knowledge and understanding in developing leadership skills. Teaches effective team building, coaching, and mentoring; effective communication; and project management skills. 3cr., 3hr. lect.

Issues and Topics
90v, 190v, 290v, 390v, 490v. See Special Curricula section on page 56. Note: For 190v courses in the Humanities, up to three credits of different topics may be used as general electives in the AA, AS, and AAS degrees; up to three additional credits may be used to satisfy a Humanities requirement for a total of no more than six Topics credits.

Japanese (JPNS)
H. DeLeon

101 Elementary Japanese I
Introduces speaking, listening, reading, and writing skills of beginning Japanese. Includes basic sentence structures. Daily practice highly recommended. 4cr., 5hr. lect. (AP, HSL)

102 Elementary Japanese II
Prereq: JPNS 101, or consent. Continues 101. Introduces additional basic Japanese speaking, listening, reading, and writing sentence structures. Daily practice highly recommended. 4cr., 5hr. lect. (AP, HSL)

201 Intermediate Japanese I
Prereq: JPNS 102, or consent. Second level course in Japanese listening, reading, speaking, and writing. Introduces more advanced grammatical patterns and vocabulary words. Daily practice highly recommended. 4cr., 5hr. lect. (AP, HSL)

202 Intermediate Japanese II
Prereq: JPNS 201, or consent. Continues JPNS 201. Completes introduction of major grammatical patterns of standard Japanese. Daily practice highly recommended. 4cr., 5hr. lect. (AP, HSL)

Journalism (JOUR)

205 News Writing
Prereq: Basic keyboarding skills of 15 wpm and ENG 100, or consent. Introduces the fundamentals of news style, reporting and ethics. Provides practical experience in news gathering and writing. 3cr., 3hr. lect.

Learning Skills (LSK)
E. Armstrong, L. Nagle

30 Study Skills
Recommended Preparation: ENG 15, or placement at ENG 19. Develops effective learning skills for success in career and technical as well as general education classes. Focuses on organization, time management, note-taking, test-taking, and communication, including reading, writing, listening and speaking. Includes use of library and Learning Center for individual improvement. (A-F, N, W. grades only.) 3cr., 3hr. lect./lab
110 College Learning Skills  
Prereq: ENG 22 or 55 with grade C or better, or placement at ENG 100, or consent. 
Enhances students’ abilities to succeed academically. Investigates communication and organizational skills, methods of inquiry, creative thinking skills, cognitive learning styles, and academic and community resources. 3cr., 3hr. lect./lab

55 Plumbing II  
Prereq: MAIN 50, or consent. 
Studies the plumbing system of the typical single-family residential dwelling. Examines how local and national codes apply to residential units. 2cr., 3hr. lect./lab

50 Plumbing I  
Introduces materials and explains techniques used to install and maintain plumbing lines, fixtures, and controls. Emphasizes effective maintenance procedures for commercial structures. 2cr., 3hr. lect./lab

60 Small Equipment Repair  
Introduces the repair and maintenance of small engines, appliances, garden equipment, and power tools. Examines troubleshooting techniques and emphasizes repair fundamentals. 2cr., 3hr. lect./lab

65 Air Conditioning and Refrigeration  
Studies air conditioning systems of residential and commercial buildings. Explores various types of refrigeration systems popular today. Introduces concepts of planning, testing, troubleshooting, and balancing such systems. 2cr., 3hr. lect./lab

70 Preventive Maintenance  
Explores principles of preventive maintenance: records maintenance, replacement schedules, rust prevention, and equipment maintenance and servicing. 2cr., 3hr. lect./lab

310 Principles of Management  
Prereq: BUS 120 and either PSY 100 or SOC 100, or consent. 
Introduces activities and skills needed to successfully manage both domestic and international organizations with an emphasis on decision-making. Includes communication, work motivation, group dynamics, leadership and organizational change, conflict, personality, and teamwork. Relates these concepts to performance, job satisfaction, and organizational commitment. 3cr., 3hr. lect.

322 Organizational Leadership and Management of Change  
Prereq: MGT 310 with a C or better, or consent. Recommended: PSY 100 or SOC 100. 
Prepares managers to influence the human side of developing and implementing changes in organizations. Theory, cases, and exercises help managers to understand the socio-technical aspects of change; to see leadership as motivating organizational members; to understand their own ability to influence others; and to understand the leadership successes of noted leaders from all walks of life. 3cr., 3hr. lect.
MATH ROUTES FOR SPECIFIC MAJORS

Begin at the appropriate course, as determined by your math placement score and your particular career path.

Business: CULN

MATH 18 → MATH 50H

Vocational: AG, FT, SUSTAINABLE CONSTRUCTION TECH

MATH 18

Vocational: ABRP, AMT

MATH 18 → MATH 50C

Vocational: ECET

MATH 18 → MATH 82 → MATH 107

See program map for specific requirement.

Business: ACC, BUS, BUSN, HOST

MATH 18 → BUSN 189 → MATH 100 or MATH 115

MATH 82 → MATH 103 → MATH 135 → MATH 203

Liberal Arts (non-calculus), Public Service: AJ, HSER, NURS (See Program Maps, pages 27-52)

MATH 18 → MATH 82 → MATH 100

MATH 111 → 112 MATH

or MATH 115

Liberal Arts (calculus)

MATH 18 → MATH 82 → MATH 103 → MATH 135

MATH 205 → MATH 206 → MATH 231 → MATH 232

MATH 219

BAS ENGT Engineering Technology

MATH 18 → MATH 82 → MATH 107 → MATH 219
400 Managing the Growing Business  
Prereq: MGT 310, or consent.  
Addresses the dynamics of growth. Includes leadership and management challenges associated with stages of organizational growth, organization design requirements, and the ever-present change process. 3cr., 3hr. lect.

Marketing (MKT)  
R. Boritzer, R. Miller  
120 Principles of Marketing  
Prereq: ENG 19 with grade C or better, or placement at least ENG 22, or consent. Recommended: MKT 120.  
Introduces marketing principles including: channels of distribution, pricing, government regulations, consumer behavior, marketing functions and organization, product analysis, and promotional activity. 3cr., 3hr. lect.

160 Advertising & Promotion  
Prereq: ENG 19 with grade C or better, or placement at least ENG 22, or consent. Recommended: MKT 120.  
Introduces the principles of advertising and promotion, including sales promotion, publicity, public relations, and selling, and their relationship to the marketing system. Stresses strategies of informing, persuading, and integrating information to create a positive image. 3cr., 3hr. lect.

300 Principles of Marketing  
Prereq: BUS 120, ECON 130, and ECON 131, or consent.  
Applies the fundamental principles of successful marketing including segmentation, targeting, product development, positioning, packaging, placement, pricing, promotion, and service and relationship building to development of marketing plans. Explores the impact of marketing of goods and services using the Internet, the World Wide Web, and other technologies as they emerge. 3cr., 3hr. lect.

400 New Venture Marketing  
Prereq: MKT 300, or consent.  
Examines how startup and small/medium companies reach the marketplace and sustain their businesses within highly competitive industries. Recognizes the need of management to operate flexibly, making maximum effective use of scarce resources in terms of people, equipment, funds, and the opportunities that exist within new and established market niches. 3cr., 3hr. lect.

Mathematics (MATH)  
K. Acks, A. Amirislani, D. Harbin, S. Schwartz  
Many mathematics courses are offered in an open lab setting where students study individually under the general guidance of the instructor and tutors.  
Courses numbered below 100 do not count toward the AA degree. To progress to more advanced mathematics courses, students should have grade C or better in prerequisite courses. The prerequisite course is most beneficial when completed during the prior 12 months.  
Math placement testing is required of all students who are taking mathematics at UH Maui College. Math placement test results are valid for two years. (For more information, see section on English and Math Placement on page 70 or Math Routes for Specific Majors on page 132).

18 Essential Math for Algebra  
Recommended preparation: Reading COMPASS placement score of 56 or higher or concurrent enrollment in ENG 21 or 102.  
Develops computation and problem-solving skills that use math operations, signed numbers, fractions, and decimals to solve ratio, proportion, percent, geometry, basic statistics and basic linear equation problems. Introduces concepts required for success in STEM, health or business related fields. (A-F, N, W grades only.) 3cr., 3hr. lect.

50H Technical Mathematics: Culinary Arts  
Prereq: MATH 18 with grade C or better or placement at least MATH 82, and ENG 19 with grade C or better or placement at least ENG 22, or consent. Recommended: At least 10th grade reading skills.  
Applies and relates mathematical skills to the solution of food service problems: adjusting and costing recipes, calculating yields, markups, business forms and reports, financial statements, interest, taxes, and scheduling. 3cr., 4hr. lect./lab.

82 Accelerated Algebraic Foundations  
Prereq: MATH 18 with grade C or better or placement at least MATH 82, or consent. Recommended: COMPASS Reading Placement at ENG 21 or higher.  
Develops graphing techniques for linear and quadratic equations. Introduces exponent rules and operations involving polynomials. Extends simplification of expressions and solutions of equations to systems, rational, radical, and quadratic. Develops application problem solving skills. (A-F, N, W grades only) 4cr., 4hr. lect.

100 Survey of Mathematics  
Prereq: MATH 82 with grade C or better or placement at least MATH 100, and ENG 100 with grade C or better (or concurrent), or consent. Recommended: At least 11th grade reading skills.  
Acquaints the non-specialist with examples of mathematical reasoning. Explores selected topics such as numeration systems, consumer math, linear and exponential growth, inductive patterns, mathematical art, probability, statistics, set theory, and logic. 3cr., 3hr. lect. (FS, FN)

103 College Algebra  
Prereq: MATH 82 with grade C or better or placement at least MATH 103, and ENG 22 with grade C or better or placement at ENG 100, or consent. Recommended: At least 11th grade reading skills.  
Analyzes and interprets the behavior and nature of functions including linear, polynomial, exponential, log, absolute value, and piecewise-defined functions; solves systems of equations; models and solves real world applications. 3cr., 3hr. lect. (FS, FN)
107 Math for Electronics & Computers
Prereq: MATH 82 with grade C or better or placement at least MATH 100, and ENG 22 with grade C or better or placement at ENG 100, or consent. Recommended: At least 11th grade reading skills.

Surveys technical mathematics, with emphasis on applications to electronics, computers, and networking. Includes numbering systems for computers, Boolean algebra and logic gates for digital circuits, trigonometry for AC circuits, exponential and logarithmic functions for AC circuits, and rectangular and polar forms of complex numbers for LRC circuits. 4cr., 4hr. lect.

111 Mathematics for Elementary Teachers I
Prereq: MATH 82 with grade C or better or placement at least MATH 100, and ENG 100 with grade C or better (or concurrent), or consent. Recommended: At least 11th grade reading skills.

Explores mathematical ideas, problem solving, quantitative and symbolic reasoning. Focuses on operations and their properties, sets, counting, patterns, and algebra. 3cr., 3hr. lect. (FN)

112 Mathematics for Elementary Teachers II
Prereq: MATH 111 with grade C or better. Recommended: At least 11th grade reading skills.

Demonstrates operations and develops the properties of the natural numbers, integers, rational numbers, and real numbers. Explores the use of mathematical operations to solve problems including geometry, probability, and physical rates. 3cr., 3hr. lect. (FN)

115 Statistics
Prereq: MATH 82 with grade C or better or placement at least MATH 100, and ENG 100 with grade C or better (or concurrent), or consent. Recommended: At least 11th grade reading skills.

Presents 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, and linear regression and correlation. 3cr., 3hr. lect. (FS, FN)

135 Pre-Calculus: Elementary Functions
Prereq: MATH 103 with grade C or better or placement at MATH 135, and ENG 100 with grade C or better (or concurrent), or consent. Recommended: At least 11th grade reading skills. Investigates the nature of functions and examines polynomial, rational, exponential, and logarithmic functions. Studies the solution to equations and inequalities in one and several variables. 3cr., 3hr. lect. (FS, FN)

140 Trigonometry Analytic Geometry
Prereq: MATH 135 with grade C or better or placement at MATH 140, and ENG 100 with grade C or better (or concurrent), or consent. Recommended: At least 11th grade reading skills.

Studies the trigonometric functions, their applications, identities and equations, the conic sections, and some topics of discrete algebra. 3cr., 3hr. lect. (FS, FN)

203 Calculus for Business & Social Sciences
Prereq: MATH 135 with grade C or better or placement at MATH 140, and ENG 100 with grade C or better (or concurrent), or consent. Recommended: At least 12th grade reading skills.

Studies the basic concepts of differentiation and integration and their applications in the areas of finance, management, economics, and social sciences. 3cr., 3hr. lect. (FS, FN)

205 Calculus I
Prereq: MATH 140 with grade C or better or placement at MATH 205, and ENG 100 with grade C or better (or concurrent), or consent. Recommended: At least 12th grade reading skills.

Explores basic concepts of differential and integral calculus. Reviews functions, focuses on differentiation and its applications. Introduces integration. 4cr., 4hr. lect. (FS, FN)

206 Calculus II
Prereq: MATH 205 with grade C or better, or placement at MATH 206, and ENG 100 with grade C or better (or concurrent), or consent. Recommended: At least 12th grade reading skills.

Extends and completes the calculus on a single real variable with the differentiation and integration of the transcendental functions, techniques of integration, applications, and infinite series. 4cr., 4hr. lect. (FS, FN)

219 Calculus for Engineering Technology
Prereq: MATH 107 or 140 or higher, PHYS 105 or higher, and ETRO 112, all with grade C or better, or consent. Coreq: PHYS 219 and ETRO 305

Studies mathematical concepts and procedures useful in the study of engineering technology. Utilizes the capabilities of software such as MATLAB and its applications to find and visualize solutions to technical and engineering problems. Includes hands-on engineering mathematics examples. Utilizes vectors, integral and differential calculus in two and three dimensions. 3cr., 3hr. lect.

231 Calculus III
Prereq: MATH 206 with grade C or better, and ENG 100 with grade C or better (or concurrent), or consent. Recommended: At least 12th grade reading skills.

Studies functions of several variables including vectors, vector functions, the calculus on these functions, and 3-dimensional analytic geometry. 3cr., 3hr. lect./disc. (FS, FN)

232 Calculus IV
Prereq: MATH 231 with grade C or better, and ENG 100 with grade C or better (or concurrent) or consent. Recommended: At least 12th grade reading skills.

Completes the study of functions of several variables with multiple integrals and vector analysis. Studies the solutions of elementary differential equations. 3cr., 3hr. lect./disc. (FS, FN)

Microbiology (MICR)
S. Calder, S. Irwin

130 General Microbiology
Prereq: ENG 100 with grade C or better, and MATH 82 with grade C or better (or concurrent), or placement at least MATH 25, or consent.

Introduces fundamentals of microbiology. Explains role of microorganisms and how they affect humans. Emphasizes medical and public health aspects, bacterial and viral diseases, and epidemiology. 3cr., 3hr. lect. (DB)
Music (MUS)

R. Wehrman

106 Introduction to Music Literature
Treats styles and forms of Western music. Develops skills in listening to and appreciating music. Introduces music styles in their historical and social contexts. 3cr., 3hr. lect. (HE, DA)

107 Music in World Cultures
Analyzes folk, popular, and art music from major regions of the world, with emphasis on Asia and the Pacific. Develops a knowledge of representative styles and regional characteristics in world music. 3cr., 3hr. lect. (FGC)

108 Fundamentals of Western Music
Recommended coreq: MUS 121C.
Introduces basic musical concepts to enable students to express themselves as budding composers, performers, listeners and teachers. Develops skills in listening to and writing down examples, clapping out rhythms, melodies and chords. Designed for the beginner with no previous musical training. 3cr., 3hr. lect. (HE, DA)

114 College Chorus
Recommended coreq: MUS 123 or 124.
No previous choral experience required.
Introduces performance of choral literature from the Renaissance to the present. Includes fundamentals of music and voice training. (May be repeated without limit for credit.) 2cr., 3hr. lect./lab (HE, DA)

114H Hawaiian Chorus
Recommended: Previous vocal experience may be helpful.
Introduces basic vocal group performance. Studies ancient to modern Hawaiian songs. 2cr., 3hr. lect./lab (HE, HI, DA)

121C Elementary Class Piano I
Prereq: Must have access to a piano or keyboard.
Designed for beginning pianists or for musicians who play another instrument. Develops understanding of concepts of melody, rhythm, harmony and form using simple songs. Develops basic keyboard technique by covering fingering, hand position, hand coordination, simple reading and chord exercises. (Cannot be audited.) 2cr., 3hr. lect./lab (HE, DA)

121D Elementary Guitar Class I
Prereq: Requires a guitar in playable condition.
Introduces classroom instruction in guitar playing. Develops basic guitar technique by covering hand positions, fingerings, scales, chords, and arpeggios. Teaches music reading. Applies reading skills to performance. Introduces a variety of guitar literature. 2cr., 2hr. lect./lab (HE, DA)

122C Elementary Class Piano II
Prereq: MUS 121C with grade C or better, or consent. Must have access to piano or keyboard. Develops basic keyboard skills established during the first semester, including both reading and playing by ear. Repertoire expands to a variety of styles, including classical, pop, jazz, and rock. (Cannot be audited.) 2cr., 3hr. lect. (HE, DA)

122D Elementary Guitar Class II
Prereq: MUS 121D, or consent.
Requires a guitar in playable condition. Investigates further guitar techniques, ensemble and solo playing. Introduces sight reading. Develops skill in interpretation. 2cr., 2hr. lect./lab (HE, DA)

123 Beginning Voice Class
Recommended coreq: MUS 108 and MUS 114. Previous musical training is desirable but not necessary.
Introduces principles of voice production as related to problems of voice literature, both technical and interpretive, at an elementary level. 2cr., 2hr. lect./lab (HE, DA)

124 Intermediate Voice Class
Prereq: MUS 123, or consent. Recommended coreq: MUS 108 and MUS 114. Previous musical training is desirable but not necessary. Develops principles of voice production as related to problems of voice literature, both technical and interpretive, at an elementary level. 2cr., 2hr. lect./lab (HE, DA)

167 Evolution of American Popular Music
Traces the history of American popular music, including soul, blues, rhythm and blues, country and western, Dixieland, gospel, folk, and rock. 3cr., 3hr. lect. (CO, DH)

180 Basic Theory and Aural Skills
Recommended: MUS 108.
Teaches basic concepts of music theory, notation, and reading applied to dictation and sight-singing. Introduces reading and sight-singing to students with limited skills in music. Develops listening and writing skills necessary to compose music. 2cr., 1hr. lect./2hr. lect./lab (HE, DA)

203 Instrumental Ensemble
Prereq: Consent by audition, or prior MUS 203 with grade C or better.
Rehearsal and performance group for instrumentalists. Repertoire ranges from the Renaissance and Baroque to contemporary music, including major works for chorus and opera. (May be repeated without limit for credit.) 1cr., 2hr. lect./lab. (DA)

216 Intermediate Piano Class
Prereq: MUS 121C and 122C, or consent.
Further develops basic keyboard skills established during the first two semesters, including both reading and playing by ear. Expands repertoire to a variety of styles, including classical, pop, jazz, and rock. Provides experience playing a solo in a recital. 2cr., 2hr. lect./lab (HE, DA)

235 Basic Experiences of Music
Introduces components of music, specifically time, pitch, media, musical expression, and form. Demonstrates how these interact with each other to comprise a musical experience. Presents correlation between music and brain development in early childhood. Intended for Education majors. 3cr., 3hr. lect./1hr. lab (HE, DA)

271 Introduction to Music Technology
Recommended: MUS 108, 121C, or 121D.
Develops an understanding of history and application of electronics in musical composition and performance. Facilitates the creative process in music through the application of technology. 3cr., 4hr. lect./lab (HE, DH)
272 Digital Recording Techniques  
Prereq: MUS 271, or consent.  
Recommended: MUS 108 or 121C or 121D, or ICS 161, or TCOM 261.  
Continues MUS 271. Focuses specifically on digital audio recording and processing techniques on the Pro Tools HD platform as they apply to the audio arts and sciences. Explores the roles of engineer and producer in the digital audio studio environment. 3cr., 4hr. lect./lab (HE, DH)
255L Child Health Nursing II Lab  
Prereq: NURS 256 and NURS 256L both with grade B or better. Coreq: NURS 255.  
Applies the nursing process to the primary, secondary, and tertiary prevention/interventions for children and their families with complex problems in the acute care setting. (Letter grade only.)  
1cr., 3hr. lab

257 Adult Health Nursing IV  
Prereq: NURS 256 and NURS 256L both with grade B or better. Coreq: NURS 257L.  
Focuses on use of the nursing process to assist clients and families with complex stressors: neurologic, reproductive, and regulatory problems. Emphasizes nursing theory related to physiological, psychological, socio-cultural, developmental, and spiritual variables as the client moves along the wellness-illness continuum. Includes care of the client and family in emergency settings. (Letter grade only.)  
2cr., 3hr. lab

257L Adult Health Nursing IV Lab  
Prereq: NURS 256 and NURS 256L both with grade B or better. Coreq: NURS 257L.  
Applies primary, secondary, tertiary prevention/interventions with clients and families in community-based and acute care settings. Develops skill in care of clients and families with complex neurologic, reproductive, and regulatory problems. Focuses on leadership-management-caregiving roles in a variety of settings. Includes care of clients in emergency setting. (Letter grade only.)  
4cr., 12hr. lab

258 Issues & Trends In Nursing II  
Prereq: NURS 158 with grade C or better.  
Focuses on management and leadership theory and application; role(s) of the registered nurse; legal, ethical, social, political, and professional issues; contemporary trends in current and future health care needs; and the transition from student nurse to registered professional nurse. (Letter grade only.)  
1cr., 1hr. lect.

261 Advanced Electro-Cardiogram Interpretation  
Prereq: NURS 259 (or concurrent), or licensed RN or LPN, or consent.  
Develops advanced nursing theory related to interpretation of 12-lead EKG.  
Focusses on EKG changes that occur with myocardial infarction, axis deviation, artificial pacemaker, defibrillation, and cardioversion.  
1cr., 1hr. lect.

262 Gerontological Nursing: A Tele-Health & Community-Based Perspective  
Prereq: ENG 22 or 55 with grade C or better, or placement at ENG 100, or consent.  
Discusses and applies nursing theory and nursing process in care of geriatric clients in varied community based settings. Focuses on the concepts of primary, secondary, tertiary prevention, including tele-health and tele-nursing interventions.  
3cr., 3hr. focused disc.

262L Gerontological Nursing: A Tele-Health & Community-Based Perspective Lab  
Prereq: NURS 262 (or concurrent), and ENG 22 or 55 with grade C or better or placement at ENG 100, or consent.  
Applies nursing process in care of geriatric clients in varied community based settings: long term care, home care, and ambulatory care. Tele-health and tele-nursing interventions applied to the care of the elderly in community settings is stressed.  
1cr., 3hr. lab

320 Health and Illness II: Family Health  
Prereq: NURS 230 with grade C or better.  
Introduces the learner to assessment and common interventions (including relevant technical procedures) for care of clients across the lifespan, including pregnancy and childbirth. In this course the family is the client and is viewed in both health and illness. Nursing practice is guided by combinations of family theories and associated assessment tools. Clinical practice guidelines and/or standardized procedures in normal developmental processes of the family and in disease and illness are considered in relationship to their impact on providing culturally sensitive, client-centered care. (Letter grade only.)  
1cr., 1hr. lect.

362 Professionalism in Nursing II  
Prereq: NURS 320 with grade C or better.  
Focuses on nursing responsibility with regard to current issues in nursing and health care. Included is 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 explored. Principles of organizational structure, leadership, decision-making, priority setting, and change will be discussed. (Letter grade only.)  
9cr., 3hr. lect./18hr. lab

366 Advanced Cardio-Pulmonary Theory  
Prereq: NURS 360 with grade C or better (or concurrent), or licensed RN, or consent.  
Develops advanced nursing theory related to the care of clients and the support of significant others and the care for clients with cardiopulmonary adaptations. Focuses on anatomy, physiology, and physical assessment of the cardiac and respiratory systems. Applies the nursing process to specific cardiac and respiratory disorders.  
3cr., 3hr. lect.
Occupational Safety & Health (OSH)

20 Introduction to Occupational Safety & Health I
Familiarizes student with practical applications of the William-Steiger Occupational Safety and Health Act of 1970 USDL. 1cr., 15hr. lect. per semester

Oceanography (OCN)

64 Hawaiian Marine Life Identification
Recommended: Enrollment in Marine Option Program.
Teaches field identification of fishes, invertebrates, and marine algae. Studies ecology of coral reef species. Requires memorization of scientific names. Practices identification in the classroom and in the ocean for field research purposes. This course does not fulfill Natural Science core requirements. This course does not fulfill requirements for acceptance into Quantitative Underwater Ecological Surveying Techniques (QUEST). 3cr., 3hr. lect./lab

101 Intro to Marine Option Program
Explores the University of Hawai‘i system wide Marine Option Program through HITS interactive television, discussions, and field trips. This course does not fulfill Natural Science core requirements. 1cr., 1hr. lect.

140 Open Water SCUBA Certification
Covers the full spectrum of diving activities. Discusses equipment and its maintenance, dive physiology and physics, safety procedures, dive planning, dive tables, and environmental conditions. Teaches skills for safe diving by means of classroom lectures and open-water sessions, including seven ocean dives. Students successfully completing the course receive an Open Water Certification card from an internationally recognized SCUBA training organization. Total cost of $145 includes equipment rental, textbook, workbook, diving logbook and tables, and certification. (Credit/No-Credit only.) 2cr., 48hr. per semester

191v Field Experience in Marine Naturalist Training
Prereq: Enrollment in Certificate of Competence Marine Naturalist I or II program or Marine Option Program, or consent.
Provides internship experiences in marine-related agencies and businesses. This course does not fulfill Natural Science core requirements. (May be repeated for a maximum of 9 credits.) 1-3cr., 1-3hr. lect./lab

201 Science of the Sea
Prereq: ENG 22 or 55 with grade C or better or placement at ENG 100, and MATH 1 or 18 with grade C or better, or placement at least MATH 82, or consent.
Introduces basic concepts of geological, physical, chemical, and biological oceanography. Emphasizes relationships between land-based and marine-based sciences. 3cr., 3hr. lect. (EA, DP)

201L Science of the Sea Laboratory
Prereq: OCN 201 with grade C or better (or concurrent); and at least MATH 82 with grade C or better or placement at least MATH 100, or consent.
Introduces instrumentation and methods used in oceanographic observations and research. Demonstrates oceanographic principles through laboratory and field data collection and analysis. 1cr., 3hr. lab. (EA, EL, DY)

293v Ocean Internships & Research
Prereq: Enrolled in Marine Option Program. Prereq or coreq: OCN 201 and ZOOL 200. With faculty guidance, students design and carry out marine-related internships, practical research projects, or field experiences on or off campus. This course does not fulfill Natural Science core requirements. (May be repeated for a maximum of 9 credits.) 1-3cr.

Pharmacology (PHRM)

103 Introduction to Pharmacology
Prereq: BIOL 100 with grade C or better, or consent. Recommended: NURS 100 with grade C or better.
Surveys scope of pharmacology including drug standards, classifications, common drugs within each classifications, drugs commonly used in the prevention, diagnosis, and treatment of disease, legislation of drugs, and administration of drugs. 1cr., 3hr. lect. for 5 wks.

104 Pharmacological Treatment of Disease
Prereq: PHRM 103 with grade C or better, or consent. Recommended: NURS 100 with grade C or better.
Explains medications commonly used in the prevention, diagnosis, and treatment of diseases. Discusses pharmacological actions, side effects, and related responsibilities. (Letter grade only.) 1cr., 3hr. lect. for 5 wks.

105 Administration of Medications
Prereq: PHRM 104 and NURS 100 both with grade C or better, or consent.
Applies basic concepts required for medication administration as a delegated task in community-based settings such as assisted living, day care, or care homes. Demonstrates choice of equipment, proper technique, hazards, complications, and patient care. Administer subcutaneous, intradermal injections, preparation and administration of oral medications, and immunizations. (Letter grade only.) 1cr., 6hr. lect./lab for 5 wks.

106 Introduction to Pharmacy Technology
Prereq: BIOL 100, and BUSN 189 or MATH 18 or higher with grade C or better, or consent.
Introduces students to the role and responsibilities of the pharmacy technician in the current health care environment. Describes basic pharmacy functions in retail, institutional, home health, and ambulatory care settings. (Letter grade only.) 3cr., 3hr. lect.

203 General Pharmacology
Prereq: ZOOL 141, or BIOL 141 (HauCC), or BIOL 243 (UH-Hilo), or ZOOL 240 (LCC), or consent.
Discusses drugs with emphasis on sites and mechanism of action, toxicity, fate, and uses of major therapeutic agents. 3cr., 3hr. lect. (DB)

Philosophy (PHIL)

100 Introduction to Philosophy: Survey of Problems
Introduces the great philosophical issues, theories, and controversies. 3cr., 3hr. lect. (IN, DH)
101  Introduction to Philosophy:  
Morals & Society  
Recommended:  PHIL 100.  
Introduces issues of social and individual values, obligations, rights, and responsibilities.  3cr., 3hr. lect.  (CO, DH)

102  Introduction to Philosophy:  
Asian Traditions  
Prereq: ENG 22 or 55 with grade C or better, or placement at ENG 100, or consent.  
Explores universal philosophical themes and problems from the Asian perspective.  Focuses on Indian, Chinese, and Japanese traditions.  3cr., 3hr. lect.  (CO, AP, DH)

109  Reasoning and Critical Thinking  
Recommend: ENG 100 and ENG 210 or 102.  
Studies informal logic, practical reasoning, argument, and the use and misuse of language.  Emphasizes the development of critical thinking skills.  3cr., 3hr. lect.  (IN, DH)

110  Introduction to Logic  
Prereq: ENG 100 with grade C or better, or consent.  
Develops the basic technique of logical analysis.  Emphasizes symbolic logic, truth, validity, formal and informal fallacies.  Examines inductive and deductive reasoning, and the criteria of evidence for reliable beliefs.  Students who seek to apply PHIL 110 to fulfill the AA up to the 2007 catalog (and appropriate AS and AAS) degree requirements in Quantitative Reasoning must place into MATH 100 or higher.  3cr., 3hr. lect.  (FS)

301  Ethical Theory  
Prereq: ENG 100 and ENG 210 or 316 or PHIL 100, 101, 102, 110, both with grade C or better, or consent.  
Investigates problems and methods in theory of moral conduct and decision-making.  Discusses primary source materials, meta-ethics, and normative theories as well as applied ethics.  3cr., 3hr. lect.  (DH)

323  Professional Ethics  
Prereq: ENG 100, or consent.  
Examines major ethical theories and principles relevant to decision-making in professional situations.  Includes experiential and self reflective methodologies as well as theoretical perspectives.  3cr., 3hr. lect.  (DH)

Physics (PHYS)

50  Technical Physics  
Prereq: MATH 18 with grade C or better, or placement at least 82 or consent.  
Introduces principles of mechanics and properties of matter, heat, sound, electricity, magnetism, and light.  Also introduces methods of measurement using both mechanical and electrical instruments.  Emphasizes practical applications of physical principles.  
3cr., 3hr. lect./disc./demonstration

105  Principles of Technology  
Prereq: MATH 82 either with grade C or better or placement at least MATH 103, or consent.  
Examines the role of technology in society and how it is used to solve problems.  Introduces experimental methods in physics and applications of modern technology to experimental science.  
3cr., 3hr. lect./disc./demonstration

151  College Physics I  
Prereq: MATH 140 or placement at least MATH 205.  
Discusses fundamental theories and problem solving methods in mechanics, heat, and sound.  Emphasizes applications of physical principles.  
4cr., 3hr. lect./3hr. lab  (DP)

152  College Physics II  
Prereq: PHYS 151.  
4cr., 3hr. lect./3hr. lab  (EA, EL, FN, DP DY)

Political Science (POLS)

D. Haytko-Paoa

110  Introduction to Political Science  
Prereq: ENG 22 with grade C or better, or placement at ENG 100, or consent.  
Studies political institutions, systems, behavior, and issues.  Analyzes American national government.  Includes study of presidency, interest groups, elections, and general theories of the American political system.  3cr., 3hr. lect.  (CO, DS)

120  Introduction to World Politics  
Prereq: ENG 22 with grade C or better, or placement at ENG 100, or consent.  
Studies current topics in international politics.  Analyzes foreign policy of the United States.  3cr., 3hr. lect.  (CO, DS)
180 Introduction to Hawaiian Politics
Prereq: ENG 22 with grade C or better, or placement at ENG 100, or consent.
Studies contemporary Hawaiian political institutions, processes, issues, and personalities at the State and County levels. Emphasizes citizen roles and responsibilities in local politics. 3cr., 3hr. lect. (CO, HI, DS)

Psychology (PSY)
L. Yankowski

100 Survey of Psychology
Prereq: ENG 22 with grade C or better, or placement at ENG 100, or consent.
Surveys the major areas in the field of psychology. Analyzes the major perspectives in the field and how these perspectives apply to human behavior. Studies memory, learning, personality, therapy, and abnormal behavior. 3cr., 3hr. lect. (IN, DS)

103 Introduction to Psychological Writing and Research Skills
Prereq: ENG 22 with grade C or better, or placement at ENG 100, or consent.
Recommended coreq or prereq: PSY 100. Introduces students to the APA writing style and format for writing term papers and conducting research in psychology. Prepares students with the skills necessary to learn and write about basic and complex psychological concepts. 2cr., 2hr. lect. (DS)

170 Psychology of Adjustment
Prereq: ENG 22 with grade C or better, or placement at ENG 100, or consent.
Examines current psychological research in the field of adjustment and provides various coping mechanisms in dealing with life’s problems. Stresses personal as well as societal concerns. Studies stress, love, marriage, divorce, suicide, death and dying, and psychological therapies. 3cr., 3hr. lect. (IN, DS)

202 Psychology of Women
Prereq: PSY 100 with grade C or better, or consent. Recommended: ENG 100 with grade C or better, or consent.
Surveys topics in psychology relevant to women’s lives: socialization of gender, mental health, achievement, motivation, lifespan issues, cultural topics, and other related issues. 3cr., 3hr. lect. (CO, DS)

213 Statistical Techniques
Prereq: PSY 100 and MATH 100 or 115 both with grade C or better, or consent.
Teaches students to interpret statistics successfully by providing sound decision-making skills in analyzing various research and applied statistical problems found throughout the psychological discipline. Examines descriptive statistics, z-tests, t-tests, F tests, chi-square tests, and correlational and regression analyses. Explains ANOVA. Denotes uses and abuses of statistics. 4cr., 3hr. lect./3hr. lab (FN, DS)

214 Research Methods
Prereq: PSY 213 with grade C or better, or consent. Recommended: PSY 103 with grade C or better.
Surveys knowledge needed in reading, developing, and interpreting psychological research. Examines ethical issues in research, writing in APA style, and the scientific method using multiple research designs. 4cr., 3hr. lect./3hr. lab (DS)

240 Developmental Psychology
Prereq: PSY 100 with grade C or better, or consent. Recommended: At least ENG 100 with grade C or better.
Examines the principle features of each life stage from prenatal through aging and death. Considers emotional, cognitive, physical, and social development at each stage. 3cr., 3hr. lect. (IN, DS)

250 Social Psychology
Prereq: PSY 100, or consent.
Introduces methods of research in social psychology and covers the topics of attitudes and attitude change; prejudice and discrimination; social perception, affiliation, attraction, and liking; prosocial behavior and altruism; aggression and violence; compliance and obedience; group structure and dynamics; environmental and urban influences. 3cr., 3hr. lect. (CO, DS)

251 Human Sexuality
Prereq: PSY 100, or consent.
Examines topics in human sexuality including anatomy/physiology, sexual response, and sexual themes in society. Emphasizes understanding of one’s sexuality through decision-making and communication skills. 3cr., 3hr. lect. (IN, DS)

253 Conflict Resolution & Mediation
Prereq: PSY 100 or BUS/COM 130 or COM 145 any with grade C or better, or consent. Recommended: ENG 100 with grade C or better.
Explores the reasons for conflict and the different approaches for seeking resolution for conflict. Studies personal and societal value systems, the psychology of how people respond to conflict, the impact of culture on conflict styles, communication skills useful in dealing with conflict, and alternative resolution strategies. Practices mediation skills as a third party intervention method. (Crosslisted as COM 215.) 3cr., 3hr. lect. (CO, DS)

260 Psychology of Personality
Prereq: PSY 100, or consent.
Studies major personality theories in the field of psychology. Compares and contrasts each theory based on specific criteria. Examines how personality could be understood within a cultural-social environment. 3cr., 3hr. lect. (IN, DS)

353 Conflict Management & Resolution
Prereq: Either PSY 100 or SOC 100 with grade C or better, and one of (with grade C or better): BUS/COM 130, COM 145, COM 210, or PSY 253/COM 215, or consent.
Examines human communication in relational conflict. Analyzes the relationships among personal history, culture, gender, power, and communication. Applies practices of Alternative Dispute Resolution (ADR) processes in assessing and intervening in conflict situations using mediation and negotiation techniques in both personal and professional contexts. Includes Western, Eastern, and Hawaiian approaches to conflict management and resolution. (Crosslisted as COM 353) 3cr., 3hr. lect. (DS)

Religion (REL)
B. Clark

150 Intro to the World’s Major Religions
Prereq: ENG 19 with grade C or better, or placement at least ENG 22 or 55, or consent.
Introduces basic elements of the world’s major religions: Hinduism, Buddhism, Taoism, Confucianism, Judaism, Christianity, and Islam. Emphasizes themes in the great Asian traditions. 3cr., 3hr. lect. (FBC)
205 Hawaiian Religion
Examines the religions, ethics, and morals of Native Hawaiians from migration period to the post-contact era. The concepts of Kapu, Mana, and Kahuna are investigated and integrated with those of dualism and primordial gods. 3cr., 3hr. lect.  (CO, HI)

Science (SCI)
J. Boswell, S. Calder, A. Coopersmith, S. Irwin
121 Introduction to Science: Biological Science
Prereq: ENG 22 with grade C or better, or placement at ENG 100.
Introduces characteristics of science, historical development of scientific concepts, and interactions of society with science, illustrated by topics from biological sciences. (Crosslisted as BIOL 101.) 4cr., 3hr. lect./3hr. lab  (EA, EL, DB, DY)

122 Intro to Science: Physical Science
Prereq: ENG 22 with grade C or better, or placement at ENG 100, or consent.
Recommended: MATH 18 with grade C or better, or placement at least MATH 23 or 82.
Introduces characteristics of science, historical development of scientific concepts, and interactions of society with science, illustrated by topics from physical sciences. 4cr., 3hr. lect./3hr. lab  (EA, EL, DP, DY)

Social Science (SSCI)
B. Clark, L. Yankowski
135 Informal Reasoning
Studies informal logic, fallacious reasoning, argument construction, and the use and misuse of language. Emphasizes development of critical thinking skills useful in reasoning about everyday political and social issues. 3cr., 3hr. lect.

Sociology (SOC)
R. Daniels, D. Haytko-Paoa
100 Survey of General Sociology
Introduces study of basic social relationships. Treats socialization, concept of culture, social stratification, prejudice, cultural change, and trends in modern society. 3cr., 3hr. lect.  (CO, CG, DS)

201 Intermediate Spanish I
Prereq: SPAN 102, or consent.
Second level course in Spanish listening, reading, speaking, and writing. Introduces more advanced patterns and vocabulary words. Introduces basic literature. 3cr., 3hr. lect.  (HSL)

202 Intermediate Spanish II
Prereq: SPAN 201, or consent.
Continues SPAN 201. Completes introduction of major grammatical patterns of standard Spanish in reading, listening, writing, and speaking. Continues to explore different literary forms. 3cr., 3hr. lect.  (HSL)

Speech (SP)
R. St. John
151 Personal & Public Speech
Recommended: Placement at ENG 100.
Introduces the major elements of speech. Develops competence in two-person, small group, and public speaking situations. 3cr., 3hr. lect./disc.  (FO, HE, DA)

231 Interprete Reading
Develops competence in the art and skill of reading literature aloud. 3cr., 3hr. lect./disc.  (FO, HE, DA)

Spanish (SPAN)
M. Fleming
101 Elementary Spanish I
Introduces speaking, listening, reading, and writing skills of basic Spanish. Includes basic sentence structures. Designed for students with little or no Spanish background. 4cr., 4hr. lect.  (HSL)

102 Elementary Spanish II
Prereq: SPAN 101, or consent.
Continues SPAN 101. Introduces additional verb tenses and continues to expand Spanish speaking, listening, reading, and writing. 4cr., 4hr. lect.  (HSL)

201 Intermediate Spanish I
Prereq: SPAN 102, or consent.
Second level course in Spanish listening, reading, speaking, and writing. Introduces more advanced patterns and vocabulary words. Introduces basic literature. 3cr., 3hr. lect.  (HSL)
Prereq: SSM 101, ENRG 101 or consent.

202 Sustainable Island Communities
Prereq: SSM 101, ENRG 101 or consent.
Introduces and examines concepts for island sustainability including land use planning, waste management, sustainable tourism, renewable energy resources, and natural resource management. Compares island communities to sustainable urban environments. 3 cr., 3 hr. lect. (EA, CO)

32C Introduction to TIG Welding
Prereq: WELD 32B, or consent.
Introduces theory of Tungsten Inert Gas (TIG) welding of ferrous and non-ferrous metals. Develops practical skills in TIG welding techniques and emphasizes safe equipment operating procedures. 2 cr., 4 hr. lect./lab

Work Practicum (WP)
WP 151v. See section on Special Curricula on page 56 for details.

Zoology (ZOOL)
B. Butler, S. Calder, A. Cooperthmith, C. Hornick

101 Principles of Zoology
Prereq: ENG 22 or 55 with grade C or better or placement at ENG 100, or consent.
Surveys major animal groups with emphasis on structure, physiology, development, reproduction, evolution, ecology, behavior, and interactions with humans. (Crosslisted as BIOL 103.) 4 cr., 3 hr. lect./3 hr. lab (EA, EL, DB, DY)

141 Human Anatomy & Physiology I
Prereq: BIOL 100 or ZOOL 101 or BIOC 241 or BIOL 101 or SCI 121 or high school biology with grade B or better, or placement at ENG 100, or consent.
Covers anatomy, physiology, and biochemistry of humans including terminology, cell structure, tissues, skin, and the skeletal, muscular, and nervous systems. 4 cr., 3 hr. lect./3 hr. lab (IN, DB, DY)

142 Human Anatomy & Physiology II
Prereq: ZOOL 141, or consent.
Covers anatomy, physiology, and biochemistry of humans including metabolism, genetics, and the cardiovascular, respiratory, digestive, excretory, endocrine, and reproductive systems. 4 cr., 3 hr. lect./3 hr. lab (IN, DB, DY)

200 Marine Biology
Prereq: ENG 22 with grade C or better, or placement at ENG 100, or consent.
Surveys physical and biological characteristics of the marine environment. Discusses local marine flora and fauna. Surveys topics including fisheries, aquaculture, pollution, and marine resources. 4 cr., 3 hr. lect./3 hr. lab (EA, EL, DB, DY)