ACCOUNTING

ACC 124 Principles of Accounting I (3)
3 hours lecture per week
Prerequisite(s): Qualification for ENG 22.
Recommended Preparation: Credit or concurrent enrollment in SP 151, credit or concurrent enrollment in SP 181, credit or concurrent enrollment in SP 251.
Comment: The sequence of ACC 124, ACC 125 and ACC 202 is equivalent to the sequence of ACC 201 and ACC 202, and vice versa. The ACC 124 and ACC 125 sequence is transferrable to other University of Hawai`i community colleges, the University of Hawai`i - West O`ahu, or the University of Hawai'i at Hilo. The ACC 124 and ACC 125 sequence also satisfies the ACC 201 entrance requirement to the University of Hawai`i at Mânoa Shidler College of Business, but does not provide transfer credits towards graduation.

ACC 124 introduces basic accounting principles and practices for service and merchandising businesses. Areas include: accounting as an information system, the accounting cycle, financial statements, internal control, current and long-term assets, and current liabilities and payroll. Special emphasis will be placed upon the practical application of accounting principles.

Upon successful completion of ACC 124, the student should be able to:
1. Complete the accounting cycle from source documents to financial statements with emphasis on practical application of accounting principles.
2. Analyze, record, report and interpret business activities of a service and/or merchandising organization using current accounting and ethical standards.
3. Demonstrate effective communication and teamwork skills.

ACC 125 Principles of Accounting II (3)
3 hours lecture per week
Prerequisite(s): A grade of "C" or higher in ACC 124; qualification for ENG 22 or higher.
Recommended Preparation: Credit or concurrent enrollment in SP 151, or credit or concurrent enrollment in SP 251, or credit or concurrent enrollment in SP 181.
Comment: The sequence of ACC 124, ACC 125 and ACC 202 is equivalent to the sequence of ACC 201 and ACC 202, and vice versa. The ACC 124 and ACC 125 sequence is transferrable to other University of Hawai'i community colleges, the University of Hawai'i - West Oahu, or the University of Hawai'i at Hilo. The ACC 124 and ACC 125 sequence also satisfies the ACC 201 entrance requirement to the University of Hawai'i at Mânoa Shidler College of Business, but does not provide transfer credits towards graduation.

ACC 125 continues the study of financial accounting procedures. Areas include: long-term assets, long-term liabilities, accounting for corporations and/or partnerships.

Upon successful completion of ACC 125 the student should be able to:
1. Apply financial accounting procedures with an emphasis on long-term assets, long-term liabilities, and equity to include corporations and/or partnerships.
2. Demonstrate effective communication and teamwork skills.

ACC 132 Payroll and Hawai'i General Excise Taxes (3)
3 hours lecture per week
Prerequisite(s): Concurrent enrollment in ACC 124, or concurrent enrollment in ACC 201, or consent of instructor.
Recommended Preparation: Credit or concurrent enrollment in ICS 100, or credit or concurrent enrollment in ICS 101; a grade of "C" or higher in ENG 21, or a grade "C" or higher in ENG 22, or successful completion of ESOL 94F, or successful completion of ESOL 94S, or qualification for ENG 100, or qualification for ESL 100.

ACC 132 introduces principles, manual and computerized procedures, and terminology for business application of payroll accounting. This course also teaches students to prepare federal and Hawai`i state forms for payroll taxes and the Hawai`i General Excise and Use Tax. The course content of ACC 132 prepare students for the payroll certification examinations offered by the American Payroll Association, such as Fundamental Payroll Certification (FPC) and/or Certified Payroll Professional (CPP). This course is designed as a recommended course for certain advanced ACC courses, but also serves those students seeking immediate employment as payroll clerks.

Upon successful completion of ACC 132, the student should be able to:
1. Ethically and accurately prepare and report payroll accounting according to federal and state laws.
2. Ethically and accurately complete Hawai`i General Excise and Use tax forms.
3. Record payroll transactions using appropriate computerized software.
4. Demonstrate effective communication and teamwork skills.

ACC 134 Individual Income Tax Preparation (3)
3 hours lecture per week
Prerequisite(s): Qualification for ENG 21, or qualification for ENG 22, or qualification for ESOL 94F, or qualification for ESOL 94S or equivalent course.
Recommended Preparation: Credit or concurrent enrollment in ICS 100, or credit or concurrent enrollment in ICS 101.

ACC 134 introduces the preparation of federal and state of Hawai'i individual income tax returns with an emphasis on law and regulations and their application to the tax returns. This course is intended for an individual preparing basic tax returns under the supervision of an accounting professional. Student will learn to conduct basic tax research using online tax research database and resources. Student will also learn to prepare tax returns both manually and by using commercial tax software such as CCH Prosystem fx (CCH, Commercial Clearing House, a division of Wolters Kluwer).

Upon successful completion of ACC 134, the student should be able to:
1. Ethically and accurately apply federal and state laws to prepare individual tax returns.
2. Use basic tax research techniques.
3. Demonstrate effective communication and teamwork skills.

ACC 137 Business Income Taxes (3)
3 hours lecture per week
Recommended Preparation: ICS 100 or ICS 101; ACC 134; ACC 201; ACC 202.

ACC 137 prepares students to be paraprofessional accountants assisting an accounting professional in the preparation of the annual tax return of a business. The course covers the Federal and Hawai`i tax systems and basic concepts of the taxation of business entities. Students are also introduced to tax preparation software, tax research tools and methodologies.

Upon successful completion of ACC 137, the student should be able to:

1. Explain basic business income tax concepts.
2. Explain the characteristics of the various forms of business entity and their tax implications.
3. Explain the income tax treatment of each of the following business entities: Proprietorship (Schedule C), C corporation, S corporation, Partnership, Limited Liability Company (LLC).
4. Prepare basic income tax returns for the above businesses entities manually and by using commercial tax preparation software, such as CCH ProSystem fx® or similar program.
5. Apply the proper tax treatment to elements of business income, expense, credits and special items at a basic level.
6. Explain the major differences between "tax" and "book" incomes.
7. Perform basic business tax research using IRS publications as well as software "help" menus, library and the Internet.
8. Prepare and present basic research projects involving business income tax issues.

ACC 150 QuickBooks® for Hawai`i Businesses (3)
3 hours lecture per week
Recommended Preparation: ICS 100 or ICS 101; ACC201.
Comment: Students are expected to provide their own USB compatible high-density electronic storage media of minimum size specified by instructor.

ACC 150 introduces popular entry-level accounting software, QuickBooks Pro®. Students gain expertise in the use of QuickBooks Pro® within the framework of an accounting information system. Accounting, business and computer knowledge are reinforced through application of this software tool to case studies and team projects. The course content of ACC 150 prepares students for the QuickBooks® Certification Examination.

Upon successful completion of ACC 150, the student should be able to:

1. Use QuickBooks Pro® to administer the sales and collections cycle and generate related reports.
2. Use QuickBooks Pro® to administer the purchases and payments cycle and generate related reports.
3. Use QuickBooks Pro® to administer the payroll function and generate related reports.
4. Use QuickBooks Pro® to administer the inventory control function and generate related reports.
5. Use QuickBooks Pro® to administer job cost accounting system and generate related reports.
6. Perform month-end and year-end procedures in QuickBooks Pro®.
7. Import and export data using QuickBooks Pro®.
8. Work as a team member to perform research and present results using presentation software such as PowerPoint®.

ACC 155 Excel® for Businesses (3)
3 hours lecture per week
Prerequisite(s): Credit or concurrent enrollment in ICS 100 or ICS 101.
Recommended Preparation: ACC 202.
Comment: Students are expected to provide their own USB compatible high-density electronic storage media of minimum size specified by instructor.

ACC 155 emphasizes the use of spreadsheets and databases as a tool for making business decisions. Students gain not only technical expertise and advanced spreadsheet skills, but also operating proficiency in the use of Microsoft Excel® within the framework of a business information system. Basic Access® will be introduced to students as an alternate tool to deal with data intensive situations. Accounting, business and computer knowledge are reinforced through application of these software tools to model building, troubleshooting, case studies, and team projects.

Upon successful completion of ACC 155, the student should be able to:

1. Use Excel® to prepare common accounting workpapers, including various supporting schedules, loan amortization schedules, payroll reconciliation, book-to-tax conversion, etc.
2. Design an Excel® worksheet template needed for solution of a business question such as those related to cost-volume-profit planning, capital budgeting, and incremental analysis.
3. Use selected advanced Excel® Data features.
4. Use DDE and OLE features as they relate to other Microsoft programs such as Access®.
5. Record and debug basic macros
6. Assign macros to buttons to create customized menus.
7. Modify recorded macros using VBA® (Visual Basic for Applications),
8. Use selected other advanced Excel® tools.
9. Import data from QuickBooks® or other integrated general ledger systems.
10. Use Access® to create and maintain databases to track accounting and business data.
11. Investigate single-purpose utility programs (e.g. cash flow forecast and fixed asset modules/software) as alternatives to Excel®.
12. Create/Read documents using Adobe Acrobat Reader/Writer or similar software.
13. Work as a team member to perform research and present results using presentation software such as PowerPoint®.

ACC 201 Introduction to Financial Accounting (3)
3 hours lecture per week
Prerequisite(s): A grade of "C" or higher in ENG 21, or a grade of "C" or higher in ENG 22, or successful completion of ESOL 94F, or successful completion of ESOL 94S, or qualification for ENG 100, or qualification for ESL 100 or equivalent course.
Recommended Preparation: Credit or concurrent enrollment in ICS 100, or credit or concurrent enrollment in ICS 101.

ACC 201 introduces accounting principles and practices used to record and communicate financial information. Methods for valuating assets, liabilities, and equity of an organization will be analyzed. The student will be introduced to the purpose and fundamentals of ethics and internal controls.

Upon successful completion of ACC 201, the student should be able to:
1. Complete the accounting cycle for a service and merchandising organization using current accounting standards.
2. Analyze the effects of business transactions on the financial statements of an organization.
3. Identify and apply basic internal control principles and accounting ethics in a business setting.
4. Demonstrate effective communication and teamwork skills.

ACC 202 Introduction to Managerial Accounting (3)
3 hours lecture per week
Prerequisite(s): ACC 201 with a grade of "C" or higher, or both ACC 124 with a grade of "C" or higher and ACC 125 with a grade of "C" or higher.
Recommended Preparation: Credit or concurrent enrollment in ICS 100 or ICS 101.

ACC 202 introduces managerial accounting methods for evaluating performance including cost accounting, budgeting, break-even analysis, ratio analysis, standard cost systems, and reporting for internal decision making.

Upon successful completion of ACC 202, the student should be able to:
1. Analyze, record, report and interpret business activities of manufacturing and other organizations using current accounting standards and technology.
2. Prepare information and reports that may be used by management for planning, control and decision making purposes.
3. Demonstrate effective communication and teamwork skills.

4.   Evaluate alternatives using various methods of entity-wide and project financing.

ACC 221 Practical Intermediate Accounting (3)
3 hours lecture per week
Prerequisite(s): Qualification for ENG 100 or qualification for ESL 100; a grade of "C" or higher in ACC 124 and ACC 125 or a grade of "C" or higher in ACC 201. Prerequisites may be waived by the approval of the Accounting Program Coordinator or the Business, Legal & Technology Education Department Chairperson.
Recommended Preparation: Credit or concurrent enrollment in SP 151, credit or concurrent enrollment in SP 181, credit or concurrent enrollment in SP 251; credit or concurrent enrollment in ICS 100, credit or concurrent enrollment in ICS 101; credit or concurrent enrollment in ENG 100, credit or concurrent enrollment in ESL 100.

ACC 221 provides in depth coverage of Generally Accepted Accounting Principles (GAAP) students learned in ACC 201. Student will learn to apply GAAP recording and reporting requirements through practice sets and financial accounting research using industry standard tools such as the Financial Accounting Standards Board (FASB) Accounting Standards Codification® Professional View. Students also begin to organize accounting information using spreadsheets, as well as Enterprise Content Management Systems such as CCH Engagement.

Upon successful completion of ACC 221, the student should be able to:
1.   Demonstrate mastery of the manual accounting cycle and related internal controls, and discuss them within the framework of an accounting information system (AIS).
2.   Organize accounting information using industry standard tools and protocols.
3.   Prepare financial statements in accordance with GAAP, analyze them, and interpret them for stakeholders using industry-standard communication practices.
4.   Use FASB Codification and other research tools to answer basic accounting research questions clearly, concisely and accurately.
5.   Demonstrate effective communication and teamwork skills.

ACC 231 (Alpha) Professional Skills (3)
3 hours lecture per week
Prerequisite(s): A grade of "C" or higher in ENG 100 or ESL 100; a grade of "C" or higher in ACC 134 or ACC 137; a grade of "C" or higher in ACC 221; credit or concurrent enrollment in ACC 255; a grade of "C" or higher in ICS 100 or ICS 101. Prerequisites may be waived by the approval of the Accounting Program Coordinator or the Business, Legal & Technology Education Department Chairperson.
Recommended Preparation: Credit or concurrent enrollment in SP 151, credit or concurrent enrollment in SP 181, credit or concurrent enrollment in SP 251.
Comment: Students are expected to provide their own USB compatible high-density electronic storage media of minimum size specified by instructor.

ACC 231(Alpha) covers the major hands-on practical skills paraprofessional accountants need to know. As the accounting function evolves over time, topics covered in this course may vary in order to maintain currency with industry standards. Course coverage emphasizes timely real world situations and provides an opportunity for students to integrate new skills with competencies learned in prerequisite courses. Concepts will be discussed, demonstrated, exercised, and applied primarily through case studies and fieldwork. Successful students will be able to effectively demonstrate use of their business analytical, teamwork, interpersonal and communication skills - all at a paraprofessional accountant level.

Upon successful completion of ACC 231 (Alpha), the student should be able to:
1.   Apply knowledge of the major components and features of an accounting system by providing substantive backup materials needed by supervising accountants or auditors.
2.   Investigate, describe, and try applications, utilities, or devices that help maintain an accounting entity's audit trail.
3.   Apply Generally Accepted Accounting Principles, internal control concepts, and ethical guidelines to accounting cases and fieldwork through use of industry-standard tools.
4.   Apply and integrate skills, tools, and knowledge gained through prerequisite Accounting and other course work to demonstrate competency in accounting problem identification and solution.
5.   Utilize workplace-standard accounting terminology and vocabulary and exhibit a paraprofessional level of conduct in interactions with team members, accounting professionals, and in presentations
6.   Plan, organize, and carry out as a team a professionally run function that connects Accounting Program students, internal and external stakeholders, and other interested parties.

ACC 231B Professional Skills: Research, Workpapers, and Systems Simulation (3)
3 hours lecture per week
Prerequisite(s): A grade of "C" or higher in ENG 100, a grade of "C" or higher in ESL 100; a grade of "C" or higher in ACC 134, a grade of "C" or higher in ACC 137; a grade of "C" or higher in ACC 221; credit or concurrent enrollment in ACC 255; a grade of "C" or higher in ICS 100 or ICS 101 or higher-level ICS course; SP 151 or SP 181 or SP 251. Prerequisites may be waived by the approval of the instructor, Accounting Program Coordinator or the Business, Legal & Technology Education Department Chair.
Recommended Preparation: SP 151.

Comment: Students are expected to provide their own USB compatible high-density electronic storage media of minimum size specified by instructor.

ACC 231B emphasizes real world situations and provides an opportunity for students to demonstrate outcomes of their learning, critically assess and appropriately apply what has been learned. Through problem-based hands-on learning using industry standard tools such as CCH Accounting Research Manager(R), FASB Accounting Standards Codification(R), CCH Tax Research Consultant Lite(R), and CCH ProSystem fx Engagement(R), students will research financial accounting, taxation, and enterprise content management issues. At the paraprofessional accountant level, students will utilize their business teamwork principles, interpersonal and communication skills to solve business problems.

Upon successful completion of ACC 231B, the student should be able to:
1. Apply knowledge of the major components of an accounting system to workpaper problems/cases and fieldwork.
2. Investigate and describe the application of Enterprise Content Management and Document Management systems in business.
3. Apply Generally Accepted Accounting Principles, internal control concepts, and ethical guidelines to financial accounting research and workpaper problems/cases and fieldwork.
4. Apply and integrate skills, tools, and knowledge gained through prerequisite Accounting and other course work to demonstrate competency in complex accounting problem identification and solution.
5. Utilize workplace-standard accounting terminology and vocabulary and exhibit a paraprofessional level of conduct in interactions with team members, accounting professionals, and in presentations.
6. Recognize, be able to define, and apply workplace-standard accounting terminology and vocabulary to systems simulations problems and cases.
7. Describe the purposes of the major components in an accounting system and demonstrate the application of this knowledge in research, workpaper, and systems simulation problems and cases.

ACC 250 (Alpha) Topics in Application of AIS Tools - Midrange Solutions I (3) (Inactive)
6 hours lecture per week for 8 weeks or 3 hours lecture per week for 16 weeks
Prerequisite(s): ACC 132; ACC 150; ACC 202 or approval of the Business Education Department Chairperson.

ACC 250 presents accounting information systems (AIS) topic(s) that may vary from semester to semester. Its purpose is to maintain currency with rapidly changing AIS technologies in Hawai'i's accounting field. Probable topics include familiarization with the characteristics and application of midrange integrated accounting packages such as MAS90. Students will have the opportunity to apply the skills learned in ACC 201, ACC 202, ACC 132, and ACC 150 to the administration of the "back office" modules/components of a moderately sophisticated computerized accounting system. Because the definition of what constitutes "back office" varies among software manufacturers, the specific modules/components studied may vary, depending on which manufacturer's midrange solution is currently in use. Concepts will be discussed, demonstrated, exercised, and applied in case studies to provide an understanding of AIS technologies and control systems and to assist students in making informed decisions about proper manual supporting systems and related technologies.

Upon successful completion of ACC 250, for the modules/components chosen, the student should be able to:

1. Describe the purpose of the back office modules/components in an AIS.
2. Use standard terminology and vocabulary related to the back office modules/components.
3. Understand the hardware and software components required for transaction generation, accumulation and summarization, and how they are related.
4. Demonstrate the practical application of skills in the installation, configuration, and management of the AIS components.
5. Evaluate the implementation of the technology for efficiency and effectiveness.
6. Describe the relationship of the back office modules/components to other AIS components.
7. Describe its impact on current business practices, operating procedures, and customer interface.

ACC 250B Topics in Application of AIS Tools – Midrange Solutions I – MAS90 (3) (Inactive)
6 hours lecture per week for 8 weeks or 3 hours lecture per week for 16 weeks
Prerequisite(s): ACC 202; ACC 132; ACC 150 or Approval of the Business Education Department Chairperson.

ACC 250B covers the fundamentals of administering an accounting information system (AIS) that uses the MAS90 midrange integrated accounting package. Students will have the opportunity to apply the skills learned in ACC 201, ACC 202, ACC 132, and ACC 150 to the administration of the Core modules/components of MAS90. Concepts will be discussed, demonstrated, exercised, and applied in case studies to provide an understanding of AIS technologies and control systems and to assist students in making informed decisions about proper manual supporting systems and related technologies.

Upon successful completion of ACC 250B, the student should be able to:

1. Describe the purpose of the Core modules/components in an AIS that uses MAS90.

2. Use standard terminology and vocabulary related to the Core modules/components: Library Master, General Ledger, Accounts Receivable, Accounts Payable, Bank Reconciliation, and Payroll.
3. Understand the hardware and software components required for transaction generation, accumulation and summarization, and how they are related.
4. Demonstrate the practical application of skills in the installation, configuration, and management of the AIS components.
5. Evaluate the implementation of the technology for efficiency and effectiveness.
6. Describe the relationship of the Core modules/components to other AIS components.
7. Describe its impact on current business practices, operating procedures, and customer interface.
8. Document the operational processes in an AIS and evaluate accounting internal controls.

ACC 251(Alpha) Midrange Accounting Applications (3)
3 hours lecture per week
Prerequisite(s): ACC 150 or approval of the instructor or Business Education Department Chairperson.
Recommended Preparation: ACC 202; concurrent registration in ACC 231(any alpha).
Comment: Students are expected to provide their own USB compatible high-density electronic storage media of minimum size specified by instructor. ACC 251 (Alpha) is repeatable for a maximum of six credits. A student may not repeat the same topic course for additional credit.

ACC 251(Alpha) covers the operation of a midrange accounting software system. The topics presented may vary from semester to semester, in order to maintain currency with rapidly changing accounting software systems technologies in Hawai'i's accounting field. Primary topics include hands-on practical skills in the operation of the software systems covered. Students will have the opportunity to integrate the skills learned in previous accounting classes to the course work. Coverage of specific modules (or system components) may vary depending on which manufacturer's midrange solution is currently in use. Concepts will be discussed, demonstrated, exercised, and applied in case studies to provide an understanding of accounting software systems technologies and control systems and to assist students in making informed decisions about proper manual supporting systems and related technologies.

Upon successful completion of ACC 251(Alpha), for the modules/components chosen, the student should be able to:

1. Describe the purpose of the modules/components in an accounting software system.
2. Use standard terminology and vocabulary related to the modules/components.
3. Use the hardware and software components required for transaction generation, accumulation and summarization.
4. Explain how hardware and software components are related.
5. Install, configure and manage the system's components.
6. Evaluate the implementation of the technology for efficiency and effectiveness.
7. Describe the relationship of the modules/components to other system components.
8. Describe its impact on current business practices, operating procedures and customer interface.

ACC 251B Midrange Accounting Applications - MAS90/200 (3)
3 hours lecture per week
Prerequisite(s): ACC 150 or approval of the instructor or Business Education Department Chairperson.
Recommended Preparation: ACC 202; concurrent registration in ACC 231.
Comment: Students are expected to provide their own USB compatible high-density electronic storage media of minimum size specified by instructor.

ACC 251B allows students the opportunity to apply the skills learned in ACC 150 to the administration of the major modules/components of a moderately sophisticated computerized accounting system. The following MAS90/200 modules are covered:
    Core Modules: Library Master, General Ledger, Accounts Payable, Accounts Receivable
    Distribution Modules: Sales Order, Purchase Order, Inventory Management
Concepts will be discussed, demonstrated, exercised, and applied in classroom activities and case studies to provide an understanding of accounting system technologies and control systems. Student will also investigate proper manual supporting systems and related technologies.

Upon successful completion of ACC 251B, the student should be able to:

1. Describe the purpose of the major Core and Distribution modules/components in an accounting system that uses MAS90/200.
2. Use standard terminology and vocabulary related to the Core modules/components: Library Master, General Ledger,

        Accounts Payable, Accounts Receivable modules.
3. Use standard terminology and vocabulary related to the Distribution modules/components: Inventory Management, Sales Order and Purchase Order modules.
4. Describe the hardware and software components required for transaction generation, accumulation and summarization and how they are related.
5. Demonstrate the practical application of skills in the installation, configuration, and management of the accounting system components.
6. Evaluate the implementation of the technology for efficiency and effectiveness.
7. Describe the relationship of the modules/components to other accounting system components.
8. Describe the impact of the technology on current business practices, operating procedures and customer interface.
9. Document the operational processes in an accounting system and evaluate accounting internal controls.

ACC 251C Accounting Information Systems - Sage (3)
3 hours lecture per week
Prerequisite(s): A grade of "C" or higher in ACC 252; a grade of "C" or higher in ACC 202; a grade of "C" or higher in ENG 100 or ESL 100; a grade of "C" or higher in ICS 101 or ICS 100; a grade of "C" or higher in SP 151 or SP 251. Prerequisites may be waived by the approval of the instructor, the Accounting Program Coordinator, or the Business, Legal, & Technology Education Department Chair.
Recommended Preparation: ACC 255.
Comment: Students are expected to provide their own USB compatible high-density electronic storage media of minimum size specified by instructor.

ACC 251C provides hands-on training in the administration of a moderately sophisticated accounting system. Sage 100 ERP is a comprehensive business management suite for manufacturers and distributors built on the client/server architecture. The following Sage 100 ERP modules are covered: Core Modules: Library Master; General Ledger; Accounts Payable, and Accounts Receivable. Distribution Modules: Sales Order; Purchase Order, and Inventory Management. Concepts will be discussed, demonstrated, exercised, and applied in classroom activities and case studies. Accounting information system technologies, accounting process information flows, and the major risks and controls associated with these processes will be investigated. Students will be able to describe and document how data is captured, processed, stored, and accessed for generating business documents, management information, and business reports.

Upon successful completion of ACC 251C, the student should be able to:
1. Use standard terminology and vocabulary to describe the purpose of the major Core and Distribution modules/components in an accounting system that uses Sage 100 ERP.
2. Perform the work required to complete the accounting cycle in an accounting information system, including analysis and entry of transactions, preparation of adjusting entries, and preparation of general-purpose and special-purpose reports and financial statements.
3. Demonstrate proficiency in the use of basic accounting AIS tools such as Windows®, Excel®, Word®, PowerPoint®, QuickBooks®, Visio®, and various cloud-based technologies.
4. Define and provide examples of the primary and supporting activities in an accounting information system that assist management in executing business and information events and help support sound decision-making.
5. Demonstrate effective communication and teamwork skills.
6. Demonstrate sound business ethics and perform efficiently at the paraprofessional level.

ACC 255 Using Excel® in Accounting (3)
3 hours lecture per week
Prerequisite(s): A grade of "C" of higher in ACC 124 and ACC 125, or a grade of "C" or higher in ACC 201; credit or concurrent enrollment in ICS 100, or credit or concurrent enrollment in ICS 101; prerequisites may be waived by the approval of the instructor, Accounting Program Coordinator, or the Business, Legal, & Technology Education Department Chair.
Comment: ACC 255 was formerly offered as ACC 155.

ACC 255 provides "hands-on" training in the use of spreadsheets on computer to solve accounting problems. Coursework involves application of previously acquired accounting skills and knowledge with emphasis on financial and managerial accounting. This course also introduces basic database concepts and applications in accounting.

Upon successful completion of ACC 255, the student should be able to:
1. Compile financial data utilizing an electronic spreadsheet to generate accurate and relevant output.
2. Analyze results of accounting problems and use the results to propose business recommendations.
3. Explain basic database concepts and application in accounting.
4. Demonstrate effective communication and teamwork skills.

ACC 293 Accounting Internship (3)
1 hour lecture per week, 8 hours internship per week
Prerequisite(s): Credit or concurrent enrollment in ACC 231B, credit in ACC 251B, or credit or concurrent enrollment in ACC 251C. Prerequisites may be waived by the approval of the instructor, the Accounting Program Coordinator, or the Business, Legal, & Technology Education Department Chair.
Comment: ACC 293 is repeatable for a maximum of nine credits, however only three credits may be applied towards the fulfillment of the AS Accounting degree requirements. Letter grade only. May not be audited. May not be taken credit/no credit.

ACC 293 is an internship course involving a student to employer (or sponsoring organization) cooperative arrangement that integrates classroom learning with supervised, structured practical work experience. In addition, employment-seeking skills such as job search, resume writing, interviewing, application form filling, professional attitude and attire will be emphasized. A student's background knowledge and skills are considered when recommending students for available positions. This course offers the opportunity for students to apply and further develop workplace soft skills and accounting skills.

Upon successful completion of ACC 293, the student should be able to:
1. Perform job search using appropriate tools; follow standards of etiquette and practice appropriate oral and written communication skills to apply for and secure available positions.
2. Complete assigned job duties and resolve problems independently and as part of a team.
3. Analyze and relate the job duties to principles, concepts or procedures covered in the ACC course of study.
4. Identify the personal qualities, work habits, work ethics, and attitudes and other competencies determined by the instructor and the employer that lead to professionalism in the work place.

AMERICAN SIGN LANGUAGE

ASL 101 Elementary American Sign Language I (4) KCC AA/HSL
4 hours lecture per week

ASL 101 introduces students to the use and study of American Sign Language (ASL), including its rules of grammar and the cultural aspects of the Deaf Community. Emphasis is on building elementary receptive and expressive ASL vocabulary and syntax including appropriate grammatical and affective facial expressions.

Upon successful completion of ASL 101, the student should be able to:

1. Identify others by using basic descriptions (descriptive and semantic classifiers).
2. Ask and answer basic questions (Yes/No and Who).
3. Respond to and give basic commands.
4. Practice responding to signers perspective when seeing directions or explanations.
5. Use appropriate classifiers and facial grammar to describe shapes and locations.
6. Exchange information and participate in discussions about close personal information- self, family, surroundings, and activities.
7. Accurately convey various types of numbers: cardinal (1-100), basic number sentences, relative and clock time, age, etc.
8. Express personal preferences on an introductory level.
9. Practice elementary ASL syntax both manual and non-manual including: basic sentence structures such as affirmations (express agreement), negations, confirmations, interrogatives, commands, declaratives and personal and possessive pronouns.
10. Incorporate culturally, appropriate, attention-getting behaviors, basic etiquette and conversational strategies.
11. Interact with Deaf people in social situations and through service learning activities to get an understanding of the Deaf Community and Deaf Culture.
12. Discuss aspects of the Deaf Community, including its culture, how Deaf and hearing people have interacted historically and the role of ASL in the lives of Deaf people.
13. Provide feedback to classmates during large and small group activities.

ASL 102 Elementary American Sign Language II (4) KCC AA/HSL
4 hours lecture per week
Prerequisite(s): ASL 101 or equivalent or instructor consent.

In ASL 102, students continue the study and use of American Sign Language (ASL), including its rules of grammar and cultural aspects of the Deaf Community. Emphasis is placed on continued building of elementary receptive and expressive sign vocabulary, and syntax, including appropriate grammatical and affective facial expressions.

Upon successful completion of ASL 102, the student should be able to:

1. Demonstrate basic, functional conversational skills in ASL through giving and asking directions, making requests, contradicting others, explaining relationships and describing others.
2. Demonstrate an increased proficiency in ASL syntax as developed in ASL 101 (including basic sentence structures, such as affirmations, negations, confirmations, interrogatives, commands and declaratives).
3. Show beginning level competency with new grammatical concepts (rhetorical and wh-questions).
4. Continue to use simple temporal markers, pronominalization, numbers, spatial referencing, noun-verb pairs, and contrastive structure.
5. Use role shifting, descriptive classifiers, dual personal pronouns, temporal sequencing and inflecting verbs.
6. Demonstrate social and cultural behaviors in a polite, informal register of ASL.
7. Demonstrate knowledge of low-intermediate level ASL vocabulary.
8. Discuss various aspects of the Deaf Community, its culture, how Deaf and hearing people have interacted historically and the role of ASL in the lives of Deaf people.
9. Show the role of creative signing in ASL.
10. Produce written transcriptions of short ASL texts beyond the 101 level.
11. Provide feedback to classmates during large and small group activities.

ASL 201 Intermediate American Sign Language I (4) KCC AA/HSL
4 hours lecture per week
Prerequisite(s): ASL 102 or equivalent or instructor consent.

In ASL 201 students continue to refine the language skills and knowledge acquired in American Sign Language 101-102. Emphasis is on encouraging students to talk about people and things in a more abstract manner, using more complex grammar, descriptors and conversational strategies.

Upon successful completion of ASL 201, the student should be able to:

1. Demonstrate basic, functional conversational skills in ASL through making requests, suggestions and complaints, talking about routines, exchanging complex personal information, and describing locations in detail.
2. Use the ASL syntax learned in ASL 101-102 more accurately.
3. Use conditionals, "when" clauses, descriptive and locative classifiers properly.
4. Recognize and use more complex temporal markers, numbers, role shifting, spatial referencing, temporal sequencing, inflecting verbs, and contrastive structure.
5. Show an increased, intermediate-level vocabulary that includes everyday objects and activities.
6. Comfortably describe family history and countries of origin.
7. Demonstrate the ability to produce the correct signs for various countries and nationalities.
8. Accurately convey life events.
9. Sustain narratives about personal experiences.
10. Demonstrate appropriate social and cultural behaviors in a polite, semi-formal register of ASL.
11. Discuss more aspects of the Deaf Community, its culture and the role ASL plays in the lives of Deaf people.
12. Demonstrate an understanding of several forms of ASL literature. Produce transcriptions of longer ASL texts.
13. Use finger spelled words and lexical borrowings appropriately.
14. Provide feedback in ASL to classmates during large and small group activities.
15. Produce transcriptions of longer ASL texts.

ASL 202 Intermediate American Sign Language II (4) KCC AA/HSL
4 hours lecture per week
Prerequisite(s): ASL 201 or equivalent or instructor consent.

In ASL 202 students continue to refine the language skills and knowledge acquired in American Sign Language 101-201. To strengthen their fluency, students will concentrate on describing objects, events, locations and complicated circumstances in greater detail. Also, creative expressions of ASL will be covered extensively.

Upon successful completion of ASL 202, the student should be able to:

1. Demonstrate increased control and confidence over grammar, vocabulary and common expressions used in daily conversation.
2. Describe unusual objects and their function in great detail by using appropriate descriptive and instrument classifiers.
3. Show the distinction between similar objects.
4. Make recommendations, give opinions, express feelings about certain activities, and handle digressions and interruptions.
5. Describe various disruptions using element classifiers.

6. Recognize and use more complex adverbial and adjectival facial modifiers.
7. Accurately use complex numbers and temporal markers, inflecting and spatial verbs, and comparative and contrastive structure.
8. Comfortably negotiate common interactions, such as shopping and dining out.
9. Sustain and comprehend longer narratives about various circumstances and activities.
10. Demonstrate appropriate social and cultural behaviors in a variety of settings.
11. Discuss, in detail, aspects of the Deaf Community not previously covered in ASL 101-201, including its culture and the role of ASL in the lives of Deaf people.
12. Demonstrate examples of creative ASL (i.e., Sign play).
13. Identify and understand several forms of ASL literature.
14. Produce transcriptions of complex ASL texts.
15. Use and show comprehension at the intermediate level of fingerspelled words and lexical borrowings.
16. Provide feedback in ASL to classmates during large and small group activities.

ASL 290 American Sign Language and Deaf Culture through Application (4) KCC AA/DH
3 hours lecture, 3 hours lab per week
Prerequisite(s): Students must be native, bilingual users of American Sign Language, or have completed ASL 202 or equivalent or approval of the instructor.
Comment: ASL 290 is designed for native, bilingual users of American Sign Language and for the advanced level ASL students. Instructor approval is required. ASL 290 is conducted in American Sign Language.

ASL 290 is designed to prepare students to serve as American Sign Language and Deaf Culture resources on campus and in the community through service learning experiences. Application of the "real world" community service experiences, cultural readings, and personal reflections will serve as the basis for communicative activities in class.

Upon successful completion of ASL 290, the student should be able to:

1. Using ASL, describe diversity and variety of Deaf Culture as identified through service learning experience and assigned readings.
2. Demonstrate job-related skills gained from practical work experience in supervised service learning activities.
3. Evaluate and integrate the service learning experiences using appropriate vocabulary and grammar in communicative activities, discussions, and projects.
4. Using ASL, critique the needs of the Deaf community in classroom discussion, reflective journals, and presentations.
5. Apply critical thinking and problem-solving skills related to service-learning experiences and course projects.
6. Compare and contrast linguistic and cultural features, perspectives, and values within Deaf Communities and between Deaf Culture and U.S. mainstream (non-signing) culture.
7. Assess the relationship between language acquisition, language learning, and culture.
8. Effectively communicate in ASL, incorporating Deaf Culture norms.

AMERICAN STUDIES

AMST 201 American Experience: Institutions and Movements (3) KCC AA/DH and KCC AS/AH
3 hours lecture per week
Recommended Preparation: Credit in or qualification for ENG 100, ENG 160 or ESL 100.

AMST 201 is an interdisciplinary course that examines continuity, diversity, and changes in American values and lives in an historical context, as manifested in social institutions and social movements. It introduces students to various types of primary materials (fictional and historical narratives, sermons, speeches, legal documents, journalistic accounts, films, etc.) and to different ways of reading and analyzing such materials.

Upon successful completion of AMST 201, the student should be able to:
1. Identify the continuity of some American values in an historical context.
2. Examine and evaluate the significance of ethnic, racial, and cultural diversity in American life.
3. Identify and analyze major themes in selected narrative, dramatic, and cinematic works dealing with the American experience.
4. Identify and examine specific American social movements and their significance.
5. Identify and describe the issues involved in socio-economic inequality, and the possibilities of social mobility in America.
6. Write essays that identify and elaborate specific American cultural values.
7. Develop and defend value judgments.
8. Express ideas clearly, orally and in writing.

ANTHROPOLOGY

ANTH 151 Emerging Humanity (3) KCC AA/FGA and KCC AS/SS
3 hours lecture per week
Prerequisite(s): Qualification for ENG 100.

ANTH 151 provides a uniquely long-term perspective on the emergence and global development of humanity over the last 5 million years. This course introduces students to the fossil record of human biological evolution and the archaeology of culture in the world prior to ca. AD 1500. Topics we examine include (but are not limited to): the development of technology, language, and sociopolitical institutions. We will also consider the origins of plant and animal domestication, the genesis of cities and urbanism, and the political and ecological consequences of human impact on the natural environment.

Upon successful completion of ANTH 151, the student should be able to:
1. Explicate and detail aspects of human diversity, biological & human evolution, and apply their understanding of ancient societies and cultures to developments that lead to emerging civilization.
2. Identify the major theoretical orientations in anthropology and explain how these orientations shape the fieldwork experience.
3. Explain how anthropologists study subsystems of culture, including archaeology, economic, kinship, political, and religious systems, personality development and cultural change.
4. Describe patterns of culture in Asia and the Pacific Islands areas and discuss culture, adaptation, language, political organization or society in Asian and Pacific Island regions.
5. Use anthropological perspectives on work to explore career interests in health, human services, education and other fields.

ANTH 152 Global Perspectives on Humanity (3) KCC AA/FGB and KCC AS/SS
3 hours lecture per week
Prerequisite(s): Qualification for ENG 100.

ANTH 152 is a critical examination of the modern era through the discipline of Anthropology. In this course, students will investigate the movements of European nations and the impact of colonization on Asia, North and South America and vast expanse of the Pacific Islands. We will study the progress of the great civilizations on earth and follow trends in globalization and cultural development in the post-1500 world. The course will provide students with a multicultural perspective on the world, and deepen their understanding from a global perspective.

Upon successful completion of ANTH 152, the student should be able to:
1. Analyze global issues and events through inquiry and inform her/himself about the historical, geographical, cultural, political, economic, and religious contexts within which these issues must be understood and choices made.
2. Identify the world's different political systems, including democracy, and recognize that democracy can be practiced in differing ways.
3. Link cultural literacy with language learning and actively pursue linguistic and cultural competencies in languages beyond her/his own.
4. Translate global learning into ethical and reflective practice, mindful of the consequences of her/his actions in a locally diverse and globally heterogeneous community.
5. Compare and contrast your own and other cultures and the multiple perspectives, values and identities they engender.

ANTH 200 Cultural Anthropology (3) KCC AA/DS and KCC AS/SS
3 hours lecture per week
Prerequisite(s): Qualification for ENG 100; qualification for MATH 82.

ANTH 200 examines the concept of culture with a focus on culture as an adaptive strategy developed by human populations in response to their environment.

Upon successful completion of ANTH 200, the student should be able to:
1. Explain how anthropologists study economic, kinship, political, religious systems, personality development and cultural change.
2. Differentiate cross-cultural differences and similarities in Hawai'i's multi-cultural society.
3. Describe patterns of culture in Asia and the Pacific Island areas and be able to discuss culture, adaptation, language, political organization or society in Asian and Pacific Island regions.
4. Use anthropological perspectives on work to explore career interests in health, human services, education and other fields.
5. Identify cross-cultural issues and develop a research paper using literature sources and interviews.
6. Express and discuss research results in writing.
7. Identify the major theoretical orientations in cultural anthropology and understand how these orientations shape the fieldwork experience.

8. Develop a concept of culture that will be useful in analyzing cross-cultural issues in Hawai'i, the United States, and the world.

ANTH 210 Archaeology (3) (Inactive)
3 hours lecture per week
Comment: ANTH 210 is currently inactive.

ANTH 210 introduces prehistoric archaeology, the methods and techniques of excavation and laboratory analysis, and a brief survey of man's cultural growth in prehistoric times.

Upon successful completion of ART 210, the student should be able to:
1. Identify the interactions between the two major fields of anthropology, physical anthropology and cultural anthropology.
2. Identify the methods archaeologists use in gathering material evidence about man's past.
3. Analyze and diagnose anatomical and attribute differences, and understand the process of archaeological inference.
4. Identify the major explanatory concepts and theories in archaeology.
5. Identify environmental and cultural processes, which shape the archaeological record.
6. Identify how archaeologists examine living human populations to gain insights into the formation of archaeological sites

ANTH 215 Physical Anthropology (3) (Inactive) KCC AA/DB
3 hours lecture per week
Prerequisite(s): Qualification for ENG 100; qualification for MATH 82.

ANTH 215 introduces physical anthropology: modern methods, techniques, and theories of the study of human evolution, primates, and physical adaptations of modern humans to their environment.

Upon successful completion of ANTH 215, the student should be able to:

1. Identify the major concerns, methods, and theoretical orientation of the field of physical anthropology and relate it to other social science fields and branches of anthropology.
2. Describe the major causes of biological variation in living human populations and theories relating these factors to environment and culture.
3. Identify the major explanatory concepts and theories now accepted in the study of human evolution, including genetics and DNA analysis.
4. Explain how primate evolution and behavior relates to the study of human evolution and variation.
5. Demonstrate the use of computers and laboratory techniques to gather and interpret physiological data on human and primate populations.
6. Identify and explain the relationships of fossil evidence to current theories of primate and hominid evolution.
7. Apply fieldwork observations, laboratory work, and library research to obtain and analyze data and prepare research reports.
8. Express clearly, in writing, and verbally present research results.

ANTH 235 Introduction to Pacific Island Peoples (3) Inactive
3 hours lecture per week
Prerequisite(s): Qualification for ENG 100; qualification for MATH 82.

ANTH 235 introduces the traditional and contemporary cultures of the Pacific. Emphasis is placed on cultural change and comparisons between Hawai'i and other Pacific Island societies.

Upon successful completion of ANTH 235, the student should be able to:

1. Recognize the voyaging spirit and skills of Pacific island navigators.
2. Explain Pacific settlement theory and the role of archeology in the development of this theory.
3. Explain the relationship between culture and ecology in the Pacific Islands.
4. Identify cultural differences and similarities in the three culture areas of the Pacific: Melanesia, Micronesia, and Polynesia.
5. Analyze oral narrative materials to gain insight into traditional Pacific cultures.
6. Evaluate the impact of European and Asian influence in Hawai'i and other Pacific island societies.
7. Compare and contrast economic opportunities and constraints in Hawai'i and other Pacific societies.
8. Identify social problems in the contemporary Pacific and assess their potential impact on the state of Hawai'i.
9. Identify cross-cultural issues and develop a research paper using literature sources and interviews.
10. Express and discuss research results clearly in writing.

ARABIC

ARAB 101 Elementary Modern Standard Arabic I (4) KCC AA/HSL (Fall)
4 hours lecture per week
Comment: ARAB 101 is offered in the fall semester only. If you have taken Arabic in the past prior to enrolling into College, taking the Arabic placement test or seeing the Arabic instructor is recommended.

ARAB 101 introduces the study of basic structures of the Arabic language with emphasis on the five recognized skills of language learning: listening, speaking, reading, writing, and cultural understanding.

Upon successful completion of ARAB 101, the student should be able to:
1. Recite, write, and repeat the Arabic alphabet and their sounds.
2. Use common greetings with proper responses and other conversational elements that pertain to daily life with ease and fluidity.
3. Utilize vocabulary pertaining to family, living conditions, school, like and dislikes and greetings.
4. Produce and interpret Arabic at a mid-novice level.
5. Develop a basic awareness and appreciation of Arabic culture; including food, music and movies.

ARAB 102 Elementary Modern Standard Arabic II (3) KCC AA/HSL (Spring)
4 hours lecture per week
Prerequisite(s): ARAB 101 or equivalent with a grade of "C" or higher or instructor consent.
Comment: ARAB 102 is offered only in the spring semester. If you have taken Arabic in the past prior to enrolling into College, taking the Arabic placement test or seeing the Arabic instructor is recommended.

ARAB 102 develops proficiency in Modern Standard Arabic in a cultural context. It builds proficiency in vocabulary, grammar and general communicative competence. Arab history, geography and culture are also explored through the language.

Upon successful completion of ARAB 102, the student should be able to:
1. Explain Arabic basic grammar as well as sentence structures at the novice level.
2. Speak in coherent sentences using an increased vocabulary foundation.
3. Compose short paragraphs regarding topics of daily life.
4. Produce short presentations in Arabic about their class, school, interest, like and dislikes, home, friends, the market, and food.
5. Define and recognize various cultural aspects of Arabic culture via films and movies.

ART

ART 101 Introduction to the Visual Arts (3) KCC AA/DA and KCC AS/AH
3 hours lecture per week

ART 101 focuses on the nature of the visual arts and their expression in various forms.

Upon successful completion of ART 101, the student should be able to:
1. Apply a knowledge and understanding of the elements of art, the principles of design and the creative process.
2. Exhibit a familiarity with major historical and contemporary movements in art and be able to understand how art reflects its time.
3. Apply an understanding of the various media.
4. Explore the visual arts' influence on the quality of life.
5. Become involved in the act of creativity.
6. Incorporate writing as a tool for analyzing art forms.

ART 104 Introduction to Printmaking (3) KCC AA/DA
6 hours lecture/lab per week
Recommended Preparation: ART 113, 114 or 123.
Comment: Letter grade and credit/no credit only. ART 104 may not be audited. Tools and materials will cost approximately $60.00.

ART 104 - Introduction to Printmaking provides foundation explorations in the processes of relief, intaglio, and stencil printmaking. Direct workshop studio experience in the basic techniques and concepts of wood cut, linoleum cut, drypoint, monotype, and basic stencil processes.

Upon successful completion of ART 104, the student should be able to:
1. Demonstrate a knowledge and understanding of the elements of art and the principles of design.
2. Employ the skillful use of relief printing materials and equipment.
3. Complete the creative problem-solving process, from planning and discovery to implementation and evaluation.
4. Apply critical and creative thinking in order to experiment and take risks with the visual work.
5. Communicate effectively about the work designed in this course.

ART 105 Introduction to Ceramics (3) KCC AA/DA
6 hours lecture/lab per week
Comment: Course materials for ART 105 cost approximately $100.

ART 105 focuses on three-dimensional concepts in clay; hand-building and wheel-throwing techniques.

Upon successful completion of ART 105 the student should be able to:
1. Exhibit basic skill competency by producing finished ceramic objects with hand building and wheel throwing techniques.
2. Utilize basic drawing skills as a means of notation, conceptualization and visual organization.
3. Exhibit an awareness of historic and contemporary examples of ceramics.
4. Identify and articulate the concepts and intent of a finished ceramic piece.

ART 106J Sculpture-Small Scale, Jewelry (3) KCC AA/DA
6 hours lecture/lab per week
Comment: ART 106J may not be audited. Approximate costs for supplies for ART 106J is $60.00.

ART 106J gives students experience in the fabrication and casting of three-dimensional forms on a small scale including jewelry, small-scale sculpture, and miniature multi-media art. Fabrication techniques may include cutting, joining, surface decorating, and finishing. Casting techniques may include the use of wax and organic materials for the lost wax process.

Upon successful completion of ART 106J, the student should be able to:
1. Successfully use a variety of tools, processes, and techniques in the development of metalwork.
2. Successfully apply the visual elements and principles of design.
3. Comprehend concept development from planning to execution of metalwork.
4. Develop craftsmanship through hand-eye coordination and the process of creative problem solving in the manifestation of metalwork.
5. Perform visual communication skills through critique, presentation and discussion.

ART 107 Introduction to Photography (3) KCC AA/DA
6 hours lecture/lab per week
Comment: Students must have a film camera with adjustable shutter speed, aperture and light meter. Course materials and supplies will cost from $150-200 (not counting the cost of a film camera).

ART 107, an introductory course, provides instruction in the elements, principles and techniques of black and white photography. No prior knowledge of photography is required.

Upon successful completion of ART 107, the student should be able to:
1. Perform and apply basic photographic techniques such as single lens reflex camera operation, black and white film processing and darkroom print enlargement.
2. Apply the fundamental visual, design and camera optical principles.
3. Develop knowledge of the traditions and history of photography.
4. Experiment by taking risks through the creative problem-solving process: from planning and discovery to implementation and evaluation.
5. Develop strong communication skills to effectively critique and analyze photographic imagery.

ART 111 Introduction to Watercolor Painting (3) KCC AA/DA
6 hours lecture/lab per week
Comment: Approximate cost of art supplies is $80.00.

ART 111 offers an introduction to watercolor materials, techniques, vocabulary, and the review of watercolor masters through visual media and demonstration(s).

Upon successful completion of ART 111, the student should be able to:
1. Select and use watercolor materials.
2. Show proficiency in the use of various watercolor techniques.

3. Utilize the various art elements and design principles in communicating visual ideas.
4. Utilize various design principles in composing a watercolor painting.
5. Complete the creative problem-solving process, from planning and discovery to implementation and evaluation.

ART 112 Introduction to Digital Arts (3) KCC AA/DA
6 hours lecture/lab per week
Prerequisite(s): Qualification for ENG 100.
Recommended Preparation: ART 115; basic computer competency skills.
Comment: Student must purchase design supplies (approximately $40.00).

ART 112 is a studio introduction to digital technology and its applications to the production of visual art. Emphasis will also be placed on developing aesthetic criteria for evaluation.

Upon successful completion of ART 112, the student should be able to:
1. Create original digital graphic artwork using appropriate design principles, elements of art, vocabulary, digital graphic software, and digital graphical technological processes.
2. Apply problem-solving techniques to develop art projects according to specifications, then critique and defend own artwork.
3. Use the vocabulary and technological processes of digital graphics.
4. Use digital graphics to generate original visual images.
5. Use a variety of industry-standard digital graphic software packages and input/output devices.
6. Work with vector and bitmap images.
7. Apply the visual elements of line, shape, value, color, texture, space, time and motion as well as the design principles of balance, rhythm, emphasis, contrast, variation, and unity in the creation of digital art works.
8. Demonstrate basic animation principles and skills.
9. Complete the creative problem-solving process from the preliminary planning stage and exploration through revisions to the final product.
10. Experiment by taking risks through the process of exploration during the creative process.
11. Achieve individual creative decisions.
12. Develop strong communication skills (written and oral) to effectively critique and defend coursework.

ART 113, 114, 115, and 116 are intended for potential Art majors, but are also open to other students. These courses are the building blocks for all of the 200 level studio courses.

ART 113 Introduction to Drawing (3) KCC AA/DA
6 hours lecture/lab per week
Recommended Preparation: ART 101.
Comment: Course materials cost approximately $75.

ART 113 is an introductory drawing course focusing on the descriptive, expressive, and formal aspects of visual language through drawing practice.

Upon successful completion of ART 113, the student should be able to:
1. Use the basic elements of the visual arts (line, value, shape, texture, modeling, pattern, composition) to arrive at an illusion of space, image and form.
2. Demonstrate a thorough understanding of basic linear perspective.
3. Demonstrate a skillful use of a variety of drawing materials and techniques.
4. Develop an awareness of the interaction of seeing, mental visualization and drawing.

ART 114 Introduction to Color (3) KCC AA/DA
6 hours lecture/lab per week
Comment: Course supplies and materials for ART 114 will cost approximately $150.00.

ART 114, an introductory color course, focuses on theory and application of color as related to studio art practice.

Upon successful completion of ART 114, the student should be able to:
1. Perceive and describe the multiple dimensions of color: hue, value, intensity and temperature.
2. Establish a solid understanding of color interaction, theories and vocabulary.
3. Demonstrate skills in paint mixing, matching and application.
4. Utilize paper and paint to creatively solve posed color problems.
5. Develop a personal sense of color.

ART 115 Introduction to 2D Design (3) KCC AA/DA
6 hours lecture/lab per week
Recommended Preparation: Credit or concurrent enrollment in ART 101.
Comment: Course materials and supplies will cost approximately $100.00.

ART 115 is a foundation studio course that focuses on the structure and fundamentals of two-dimensional design. Emphasis is placed on studio projects that introduce the visual elements and apply the principles of design. This is a beginning art course that prepares the student for further study in drawing, painting, sculpture, graphic design, illustration and other advanced visual studies.

Upon successful completion of ART 115, the student should be able to:
1. Successfully apply the visual elements and the principles of design.
2. Illustrate the concept of structure in design through the use of grid and modular systems.
3. Employ the skillful use of design media including paint, paper, rulers, cutting tools, and mounting materials.
4. Apply critical and creative thinking within the problem solving process by experimenting and taking risks with the visual work.
5. Identify the scope of design in the contemporary world.
6. Communicate effectively about the work designed in this course.

ART 116 Introduction to Three-Dimensional Composition (3) KCC AA/DA
6 hours lecture/lab per week
Comment: Formerly ART 106. ART 116 may not be audited. Approximate cost for supplies for ART 116 is $80.00.

ART 116 is a foundation course in three-dimensional design and is concerned with a visual dialogue concerning form and space. Elements of art and principles of design are utilized separately and in concert to construct three-dimensional forms. Three-dimensional forms will be constructed using a variety of materials.

Upon successful completion of ART 116, the student should be able to:
1. Successfully use a variety of tools, processes, and techniques in the development of three-dimensional ideas about form and space.
2. Successfully apply the visual elements of art and principles of design.
3. Complete the creative problem-solving process from the preliminary stage and exploration through revisions to the final product.
4. List examples of historical and contemporary sculpture.
5. Perform visual communication skills through critique, presentation, and discussion.

ART 120 Introduction to Typography (3) KCC AA/DA
6 hours lecture/lab per week
Prerequisite(s): ART 112 with a grade of "C" or higher; ART 115 with a grade of "C" or higher; satisfactory completion of the Typography entrance portfolio review or acceptance into a NMA AS concentration.
Comment: ART 120 may not be audited.

ART 120 introduces and applies typography terminology, history, and theory through the exploration of letterforms and word compositions using page layout software.

Upon successful completion of ART 120, the student should be able to:
1. Design functional, organized and appealing type compositions through the consideration of page size, grid, whitespace, margins, columns, gutters, visual hierarchy and information chunking.
2. Select appropriate typefaces based on the function, anatomy, personality and history of the type, relative to the nature and goals of the project.
3. Format type with consideration of typeface, size, styles, color, case, alignment, line-length, leading, paragraph spacing, tracking, kerning, along with other typographic considerations.
4. Apply knowledge of the theory, history, and principles of design and animation in the creation new media art.
5. Apply successful problem-solving skills utilizing industry standard applications, technologies, and techniques in the creative and technical production process.
6. Communicate effectively, both visually and verbally, by presenting work, defending design decisions and by participating as an active critic during group critiques.
7. Design visually appealing page layouts that communicate a typographic message clearly and effectively through the implementation of typographic control, composition and page layout software.

ART 123 Introduction to Painting (3) KCC AA/DA
6 hours lecture/lab per week
Recommended Preparation: ART 101 and ART 113.
Comment: Course materials cost approximately $150.

ART 123 is the beginning painting course on the theory and practice of oil painting. Basic materials and technical procedures will be explored.

Upon successful completion of ART 123, the student should be able to:
1. Demonstrate an effective use of painting materials, procedures and terminology.
2. Define and sensitively apply the visual elements of line, shape, light and shadow, color, texture and space, and the design principles of balance, rhythm, focal points, implied movement and unity to painting projects.
3. Proceduralize the painting process from thumbnail sketches, canvas preparation to the completion of a painting.
4. Develop limited palettes, and explore color harmony and balance within a painting.
5. Demonstrate an understanding of the multiple dimensions of color: hue, value, intensity and temperature.
6. Experience paint as structure and demonstrate an awareness of the plastic quality of paint.

ART 125 Introduction to Graphic Design (3) KCC AA/DA
6 hours lecture/lab per week
Prerequisite(s): ART 112 with a grade of "C" or higher; ART 115 with a grade of "C" or higher; satisfactory completion of the Introduction to Graphic Design entrance portfolio review or acceptance into a NMA AS concentration.
Comment: ART 125 may not be audited.

ART 125 introduces various ways of organizing visual elements in page design and examines the conceptual meaning of the type and image in combination. Structural grid systems and design principles are used to organize visual information using page layout software.

Upon successful completion of ART 125, the student should be able to:
1. Develop strong concepts to communicate a message based on needs and purpose, by exploring the relationship between image, type and meaning.
2. Design page layouts using structural grid systems, modules and design principles to organize visual information such as photo, illustration, typography and white space, using page layout software.
3. Apply knowledge of the theory, history, and principles of design and animation in the creation new media art.
4. Apply successful problem-solving skills utilizing industry standard applications, technologies, and techniques in the creative and technical production process.
5. Communicate effectively, both visually and verbally, by presenting work, defending design decisions and by participating as an active critic during group critiques.
6. Design page layouts that communicate a message effectively by integrating content and meaning with visual form.

ART 126 3D Computer Graphics I (3) KCC AA/DA
6 hours lecture/lab per week
Prerequisite(s): ART 112 with a grade of "C" or higher; approval of the 3D Computer Graphics I portfolio entrance review or acceptance into a NMA AS concentration.
Comment: ART 126 may not be audited.

ART 126 explores introductory level conceptual and technical topics in 3D computer graphics. Autodesk Maya and related applications will be utilized to develop projects that integrate 3D modeling, UV layout, texture mapping, lighting, and rendering.

Upon successful completion of ART126, the student should be able to:
1. Develop 3D models and related art assets using introductory level technical skills, procedures, and production methodologies.
2. Employ the vocabulary of 3D computer graphics to define creative objectives and evaluate outcomes.
3. Apply knowledge of contemporary industry responses to 3D computer graphics in the development of 3D models and related art assets.
4. Apply knowledge of the theory, history, and principles of design and animation in the creation new media art.
5. Apply successful problem-solving skills utilizing industry standard applications, technologies, and techniques in the creative and technical production process.
6. Communicate effectively, both visually and verbally, by presenting work, defending design decisions and by participating as an active critic during group critiques.
7. Develop 3D content that integrates multiple stages of the CG pipeline, including: 3D modeling, UV layout, texture mapping, lighting, and rendering.

ART 127 Graphic Symbolism (3) KCC AA/DA
6 hours lecture/lab per week
Prerequisite(s): ART 112 with a grade of "C" or higher; ART 115 with a grade of "C" or higher; satisfactory completion of the Graphic Symbolism entrance portfolio review or acceptance into a NMA AS concentration.
Comment: ART 127 may not be audited.

ART 127 introduces the terminology, history and theory of graphic symbolism and explores shapes and letterforms to create symbols and logos.

Upon successful completion of ART 127, the student should be able to:

1. Design visually appealing graphic symbols and/or logos that are mindful of the history and theory of graphic symbols, the visual elements of design, color theory, and typography.
2. Design functional graphic symbols and/or logos and are distinctive, memorable, appropriate, versatile, timeless, practical, simple in form and conveys an intended message based on research.
3. Design functional graphic symbols and/or marks that are considerate of issues of size, reduction and reproduction.
4. Apply knowledge of the theory, history, and principles of design and animation in the creation new media art.
5. Apply successful problem-solving skills utilizing industry standard applications, technologies, and techniques in the creative and technical production process.
6. Communicate effectively, both visually and verbally, by presenting work, defending design decisions and by participating as an active critic during group critiques.
7. Design visually appealing symbols and logos that communicate a message clearly to intended audience while effectively using vector software.

ART 128 Interface Programming I (3) KCC AA/DA Spring
6 hours lecture/lab per week
Prerequisite(s): ART 112 with a grade of "C" or higher; satisfactory completion of the Interface Programming portfolio review or acceptance into a New Media Arts AS concentration.
Recommended Preparation: Successful completion or concurrent enrollment in ART 229 Interface Design I.
Comment: ART 128 may not be audited. ART 128 is offered in the Spring semester only.

ART 128 Interface Programming I provides a foundation of front-end interface programming skills, techniques, and principles necessary to create visually effective, web standard compliant web sites. This course introduces HTML (HyperText Markup Language), CSS (Cascading Style Sheets), and JavaScript to manually convert custom visual interface designs into fully functional, interactive web sites.

Upon successful completion of ART 128, the student should be able to:
1. Apply basic concepts and principles of the front-end interface programming technologies HTML, CSS, and JavaScript in the creation of web-standard compliant web sites.
2. Analyze and evaluate the source code of existing web sites for the use of well-formed, semantic markup, cross-platform/cross-browser compatibility, validation, and accessibility issues.
3. Apply knowledge of the theory, history, and principles of interface design in the creation new media art.
4. Apply successful problem-solving skills utilizing industry standard applications, technologies, and techniques in the creative and technical production process.
5. Communicate effectively, both visually and verbally, by presenting work, defending design decisions, and by participating as an active critic during group critiques.
6. Synthesize the concepts and principles of interface design with interface programming in the creation of web sites that integrates conceptual thinking, technical execution, and aesthetic application.

ART 129 Corporate Identity (3) KCC AA/DA
6 hours lecture/lab per week
Prerequisite(s): ART 125 with a grade of a grade of "C" or higher; satisfactory completion of the Corporate Identity entrance portfolio review or acceptance into a NMA AS concentration.
Comment: ART 129 may not be audited.

ART 129 introduces the concept of creating conceptually and visually unified corporate identity collateral with effective branding and marketing guidelines through the development of print and Web design.

Upon successful completion of ART 129, the student should be able to:
1. Develop strong visual concepts to communicate a brand based on needs and purpose, by exploring effective corporate identity, branding and marketing guidelines.
2. Design collateral materials using structural grid systems, modules and design principles to organize visual information such as photo, illustration, typography and white space, using design software.
3. Apply knowledge of the theory, history, and principles of design and animation in the creation new media art.
4. Apply successful problem-solving skills utilizing industry standard applications, technologies, and techniques in the creative and technical production process.
5. Communicate effectively, both visually and verbally, by presenting work, defending design decisions and by participating as an active critic during group critiques.
6. Produce a unified corporate identity brand through the design of printed and web collateral materials.

ART 156 Digital Painting (3) KCC AA/DA
6 hours lecture/lab per week
Prerequisite(s): ART 112 with a grade of "C" or higher; approval of the Digital Animation portfolio entrance review or acceptance into a New Media Arts AS concentration or per instructor consent.
Comment: Letter grade and credit/no credit grading only. ART 156 may not be audited.

ART 156 explores the fundamental principles and techniques of digital painting. Students learn digital painting techniques as used for personal expression, production design, concept art, matte painting, and texture mapping.

Upon successful completion of ART 156, the student should be able to:
1. Develop paintings employing the digital painting tools, thumbnails, and reference using introductory level technical skills and procedures.
2. Employ the vocabulary of traditional and digital painting to define creative objectives and evaluate outcomes.
3. Apply knowledge of contemporary industry standards in the development of digital painting.
4. Apply knowledge of the theory, history, and principles of design and animation in the creation of new media art.
5. Apply successful problem-solving skills utilizing industry standard applications, technologies, and techniques in the creative and technical production process.
6. Communicate effectively, both visually and verbally, by presenting work, defending design decisions and by participating as an active critic during group critiques.

ART 157 Film Analysis and Storytelling (3) KCC AA/DA
6 hours lecture/lab per week
Prerequisite(s): ART 126 with a grade of "C" or higher; approval of the Digital Animation portfolio entrance review or acceptance into a NMA AS concentration.
Comment: ART 157 may not be audited.

ART 157 explores the fundamental principles and techniques of storytelling through storyboards, 2D animatics, 3D animatics, and character model sheets. Topics include: character design, storyboarding, camera angles and cuts, editing a story reel with audio, and pitching storyboards.

Upon successful completion of ART 157, the student should be able to:
1. Develop storyboards, 2D animatics, and 3D animatics using introductory level technical skills and procedures.
2. Employ the vocabulary of traditional and digital storytelling to define creative objectives and evaluate outcomes.
3. Apply knowledge of contemporary industry standards in the development of storyboards, 2D animatics and 3D animatics.
4. Apply knowledge of the theory, history, and principles of design and animation in the creation of new media art.
5. Apply successful problem-solving skills utilizing industry standard applications, technologies, and techniques in the creative and technical production process.
6. Communicate effectively, both visually and verbally, by presenting work, defending design decisions and by participating as an active critic during group critiques.
7. Develop 3D content that integrates multiple stages of the CG pipeline, including: 3D modeling, lighting, audio, and rendering.

ART 158 History of Animation (3) KCC AA/DA (Inactive)
6 hours lecture/lab per week
Prerequisite(s): ART 112; approval of the History of Animation entrance portfolio review or acceptance into a NMA AS concentration.
Comment: ART 158 is currently inactive. ART 158 may not be audited.

ART 158 is an in-depth survey of historical developments, styles, techniques, theory and criticism of animation as an art form. A studio component integrates research with design projects.

Upon successful completion of ART 158, the student should be able to:
1. Analyze how ideologies, technologies, and cultures have shaped the history of animation, including the means of production, distribution, and presentation of animated content in both filmic and non-filmic forms.
2. Identify different styles of animation and the technologies used to produce them.
3. Analyze and apply traditional materials and methodologies used in the production of animation.
4. Apply knowledge of the theory, history, and principles of design and animation in the creation of new media art.
5. Apply successful problem-solving skills utilizing industry standard applications, technologies, and techniques in the creative and technical production process.
6. Communicate effectively, both visually and verbally, by presenting work, defending design decisions and by participating as an active critic during group critiques.

ART 159 History of Communication Design (3) KCC AA/DA
6 hours lecture/lab per week
Prerequisite(s): ART 112 with a grade of "C" or higher, ART 115 with a grade of "C" or higher; acceptance into a New Media Art concentration or satisfactory completion of the History of Communication Design portfolio review.
Comment: ART 159 may not be audited.

ART 159 is a chronological survey of design history with an emphasis on work from the Victorian Period through the present. International, political, social and technological issues are addressed in relationship to visual arts and design disciplines. A studio component integrates research with design projects.

Upon successful completion of ART 159, the student should be able to:
1. Explore and identify the key periods of communication design.
2. Analyze historical and contemporary communication design styles.
3. Research a design period and present a visual solution based on that period.
4. Apply knowledge of the theory and history, and the elements and principles of design in the creation of new media art.
5. Apply successful problem-solving skills utilizing industry standard applications, technologies, and techniques in the creative and technical production process.
6. Communicate effectively, both visually and verbally, by presenting work, defending design decisions and by participating as an active critic during group critiques.
7. Work effectively as a team member to achieve creative decisions.

ART 189 Introduction to Hawaiian Art (3) KCC AA/DA and KCC AS/AH
6 hours lecture/lab per week
Recommended Preparation: HAW 101.

ART 189 is an integrated beginning studio art course, which offers students the opportunity to understand and express Hawaiian cultural perspectives through contemporary visual art activities.

Upon successful completion of ART 189, the student should be able to:
1. Examine the historical and formal qualities of objects produced by Hawaiians through pre-contact, post-contact, and contemporary times.
2. Create art as a means of contemporary notation, conceptualization and visual organization.
3. Demonstrate how the Hawaiian language informs the process of art making and offers insights into the metaphorical nature intrinsic in Hawaiian art.
4. Experiment by taking risks through the creative problem solving process: from planning and discovery to implementation and evaluation.
5. Explain the scope of design in Hawaiian culture, its relationship to Western and Pacific Island design both in historic and contemporary times.

THE 200 LEVEL STUDIO COURSES in photography, drawing, figure drawing, painting, ceramics, visual studies and sculpture (ART 207, 212, 213, 214, 223, 243, 244, 253) are intended primarily for ART majors but are also open to other students. They build on skills and concepts learned in ART 101, 113, 114, 115 and 116.

ART 202 Digital Imaging (3) KCC AA/DA
6 hours lecture/lab per week
Prerequisite(s): ART 112 with a grade of "C" or higher.
Comment: ART 202 may not be audited.

ART 202 builds upon the foundation level technical and conceptual digital art skills introduced in ART 112 Introduction to Digital Arts. Through lessons, demonstrations, and hands-on-exercises, this course aims to develop intermediate skills in digital imaging concepts and techniques including image capture, manipulation, and output. Emphasis will be placed on the creative process and developing a conceptual and aesthetic criteria for evaluation.

Upon successful completion of ART 202, the student should be able to:
1. Apply basic concepts and principles of digital imaging and manipulation in the creation of digital works of new media art.
2. Utilize industry standard digital imaging software techniques and technologies with digital camera equipment to capture, adjust, manipulate, and composite digital content and imagery in the creation of print and time-based works of new media art.
3. Apply knowledge of the theory, history, and principles of interface design in the creation new media art.
4. Apply successful problem-solving skills utilizing industry standard applications, technologies, and techniques in the creative and technical production process.
5. Communicate effectively, both visually and verbally, by presenting work, defending design decisions, and by participating as an active critic during group critiques.
6. Synthesize the concepts and principles of digital imaging, digital photography, digital printing, and motion graphics in the creation of works of new media art that integrate conceptual thinking, technical execution, and aesthetic application.

ART 207 Intermediate Photography: Techniques and Aesthetics of Photography (3) KCC AA/DA
6 hours lecture/lab per week
Prerequisite(s): ART 107 or consent of instructor.
Comment: ART 207 may not be audited. ART 207 is repeatable up to six credits. Students who repeat ART 207 will apply all ART 207 competencies toward constructing a semester long body of photographic work inclusive of field and subject research, experimentation, critical discussion and resolution. Course supplies will cost approximately $150.00.

ART 207 focuses on black and white photography emphasizing communication and self-expression through lectures, demonstration and projects.

Upon successful completion of ART 207, the student should be able to:
1. Perform and apply beyond the basic photographic techniques with camera operations; black and white film processing; darkroom print enlargement and manipulation; and systems of exposure and development for film.
2. Show proficiency in skills and concepts relative to the practice of photography as a means of visual communication and self-expression.
3. Develop knowledge of the traditions and history of photography.
4. Show a developed proficiency in the creative problem-solving process; personal insight; craftsmanship; and technical, aesthetic and critical concepts.
5. Use and apply strong communication skills in critiques and discussions to effectively critique and analyze photographic imagery.

ART 212 Digital Animation (3) KCC AA/DA
6 hours lecture/lab per week
Prerequisite(s): ART 112 with a grade of "C" or higher; approval of the Digital Animation portfolio entrance review or acceptance into a NMA AS concentration.
Comment: ART 212 may not be audited.

ART 212 explores the fundamental principles and techniques of 3D computer animation. Students learn to create convincing motion by creating several short animations that explore animation principles and character development. Autodesk Maya software is used for instruction and assignments.

Upon successful completion of ART 212, the student should be able to:
1. Develop character behavior exercises employing the principles of animation, thumbnails, and storyboards using introductory level technical skills and procedures.
2. Employ the vocabulary of traditional and 3D computer animation to define creative objectives and evaluate outcomes.
3. Apply knowledge of contemporary industry standards in the development of 3D character animation workflow.
4. Apply knowledge of the theory, history, and principles of design and animation in the creation of new media art.
5. Apply successful problem-solving skills utilizing industry standard applications, technologies, and techniques in the creative and technical production process.
6. Communicate effectively, both visually and verbally, by presenting work, defending design decisions and by participating as an active critic during group critiques.
7. Develop a 3D character animation that integrates the mechanics and emotion of animation, lighting, and rendering.

ART 213 Intermediate Drawing (3) KCC AA/DA
6 hours lecture/lab per week
Prerequisite(s): ART 113 or instructor consent.
Recommended Preparation: ART 101 and ART 270.
Comment: ART 213 may not be audited and is repeatable for a maximum of six credits. ART 213 is offered in the Spring and Fall semester only. Course supplies will cost approximately $75.00.

ART 213 is a continuation and development of drawing ideas and skills introduced in ART 113. A variety of materials, techniques and concepts are explored, particularly pertaining to drawing concepts unique to the 20th century.

Upon successful completion of ART 213, the student should be able to:
1. Show a developed proficiency in the use of a variety of drawing materials, techniques and concepts, particularly pertaining to drawing concepts unique to the 20th century.
2. Integrate the dynamic nature of the picture plane with the representational aspects of drawing.
3. Develop skills in drawing as a descriptive language for greater personal expression.
4. Experience drawing as a way of seeing involving all the faculties of the mind: perception (observation, sensation), intellect (analysis, organization, synthesis), intuition and emotion.
5. Demonstrate an increased familiarity with the language of art, the basic vocabulary of drawing: line, shape, value, color, form and space; and to organize these elements and their relationships.
6. Focus on the process.

ART 214 Introduction to Life Drawing (3) KCC AA/DA
6 hours lecture/lab per week
Prerequisite(s): ART 113 or consent of instructor.
Recommended Preparation: ART 213.
Comment: ART 214 may not be audited. ART 214 is repeatable for maximum of six credits. Course supplies will cost approximately $75.00.

ART 214 is an investigation of the figure concerning anatomical construction, light, space, diagrammatic analysis, and thematic content through the process of drawing.

Upon successful completion of ART 214, the student should be able to:
1. Draw the human figure accurately based on anatomical construction.
2. Apply the visual elements of line, shape, volume, mass, light and space, and the design elements of balance, rhythm, movement and dominance to the drawing process.
3. Develop proficiency in the use of a variety of drawing materials and techniques, including diagrammatic analysis.
4. Draw the human figure expressively.

ART 222 Digital Multimedia (3) KCC AA/DA
6 hours lecture/lab per week
Prerequisite(s): ART 257 with a grade of "C" or higher; approval of the Digital Multimedia portfolio review or acceptance into a NMA AS concentration.
Comment: ART 222 may not be audited.

ART 222 provides studio experience in time-based multimedia concepts and techniques including digital video editing, motion graphic design, sound design, multimedia authoring, and online video delivery. Students go through the full creative process of pre-production, production, and post-production of digital multimedia works of art.

Upon successful completion of ART 222, the student should be able to:
1. Apply basic concepts and principles of video editing, motion graphics, and narrative storytelling in the creation of time-based works of digital multimedia.
2. Shoot video, edit video, add sound, animate custom graphics, author media, and deliver video content online using a combination of industry standard software applications.
3. Apply knowledge of the theory, history, and principles of interface design in the creation new media art.
4. Apply successful problem-solving skills utilizing industry standard applications, technologies, and techniques in the creative and technical production process.
5. Communicate effectively, both visually and verbally, by presenting work, defending design decisions, and by participating as an active critic during group critiques.
6. Synthesize the principles of time-based multimedia using the individual elements of image, text, and sound in the creation of digital works of art that communicate conceptual ideas, technical execution, and aesthetic application.

ART 223 Intermediate Painting (3) KCC AA/DA
6 hours lecture/lab per week
Prerequisite(s): ART 123 or instructor consent.
Recommended Preparation: ART 270.
Comment: Course supplies will cost approximately $150.00. ART 223 may not be audited. ART 223 is repeatable for a maximum of six credits.

ART 223 is a survey of late 19th and early 20th century studio painting practice emphasizing developments in light notation, cubism, surrealism and expressionism.

Upon successful completion of ART 223, the student should be able to:
1. Develop a working knowledge of late 19th and early 20th century studio painting practice emphasizing developments in light notation, cubism and surrealism and expressionism.
2. Demonstrate an understanding of all aspects of color mixing, including structuring a color palette through sensitively perceiving value, temperature and intensity.
3. Demonstrate an understanding of the architectonics structure of painting, including the dynamic organization of pattern, two and three dimensional space and rhythmic demands of the flat picture plane.
4. Demonstrate an understanding of the abstraction process.
5. Exemplify trusting one's own decisions, insights and perceptions during the creative problem-solving process.
6. Develop language skills in critical evaluation of paintings.
7. Begin the search for an original and personal direction in painting.

ART 225 Painting/Water-Based Media (3) KCC AA/DA
6 hours lecture/lab per week
Prerequisite(s): ART 111, ART 113 or instructor consent.

ART 225 offers an introduction to water-based media. Traditional transparent color, gouache, and acrylic painting will be explored.

Upon successful completion of ART 225, the student should be able to:
1. Distinguish and become familiar with the techniques associated with all three water-based techniques. In addition, apply color using different techniques, wet on wet, wet on dry, texture transfer and resist techniques.
2. Expand knowledge of water-based paint and color mixing. Explore color groupings (color analogy), colors in simultaneous contrast, and limited palettes.
3. Successfully complete a series of 6-8 finished paintings that are related thematically.
4. Demonstrate creative problem solving through the process of discovery and application of techniques taught.
5. Develop an attitude of risk-taking and be willing to accept failure in order to achieve success; learning from mistakes is part of the creative process.
6. Begin the search for an original and personal vision.

ART 226 3D Computer Graphics II (3) KCC AA/DA
6 hours lecture/lab per week
Prerequisite(s): ART 202 with a grade of "C" or higher; ART 212 with a grade of "C" or higher; ART 126 with a grade of "C" or higher; approval of the 3D Computer Graphics II entrance portfolio review or acceptance into a NMA AS concentration.
Comment: ART 226 may not be audited.

ART 226 explores intermediate level conceptual and technical topics in 3D computer graphics, including: character design, character modeling, high-detail digital sculpting, character setup, surfacing, and animation.

Upon successful completion of ART 226, the student should be able to:
1. Develop 3D models, animations, and related art assets using intermediate level technical skills, procedures, and production methodologies.
2. Employ appropriate strategies to develop 3D models suited to the needs of character setup and animation.
3. Apply knowledge of the theory, history, and principles of design and animation in the creation new media art.
4. Apply successful problem-solving skills utilizing industry standard applications, technologies, and techniques in the creative and technical production process.
5. Communicate effectively, both visually and verbally, by presenting work, defending design decisions and by participating as an active critic during group critiques.
6. Develop 3D content that integrates multiple stages of the computer graphics pipeline, including: 3D modeling, UV layout, high-detail sculpting, surfacing, character setup, animation, lighting, and rendering.

ART 229 Interface Design I (3) KCC AA/DA
6 hours lecture/lab per week
Prerequisite(s): ART 125 with a grade of "C" or higher; satisfactory completion of the Graphic Design entrance portfolio review or acceptance into a NMA AS concentration.
Recommended Preparation: Successful completion or concurrent enrollment in ART 128 Interface Programming I.
Comment: ART 229 may not be audited.

ART 229 Interface Design I provides a foundation of interface design skills, techniques, and principles necessary to design visually effective, user-friendly web sites. Through lessons, demonstrations, and hands-on projects, this course explores how the fundamental elements and principles of graphic design are applied through the design process for creating interactive interfaces. Students go through the analysis, information architecture, conceptual planning, and visual layout designing stages of the web design process and document their findings through client documentation and presentations.

Upon successful completion of ART 229, the student should be able to:
1. Apply basic concepts and principles of interface design, user experience design, and information architecture in the creation of client-based interactive applications and web sites.
2. Utilize industry standard graphics editing software to design the content structure, informational hierarchy, navigation, user workflow, and visual layout for interactive client-based interfaces.
3. Apply knowledge of the theory, history, and principles of interface design in the creation new media art.
4. Apply successful problem-solving skills utilizing industry standard applications, technologies, and techniques in the creative and technical production process.
5. Communicate effectively, both visually and verbally, by presenting work, defending design decisions, and by participating as an active critic during group critiques.
6. Synthesize the concepts and principles of graphic design with interface and user experience design in the creation of interactive interfaces that integrate conceptual thinking, technical execution, and aesthetic application.

ART 243 Intermediate Ceramics: Hand Building (3) KCC AA/DA
6 hours lecture/lab per week
Prerequisite(s): ART 105 or consent of instructor.
Comment: ART 243 is repeatable once for a maximum of six credits. Course materials and supplies will cost approximately $100.00.

ART 243 focuses on development of sculptural and vessel concepts using hand building techniques.

Upon successful completion of ART 243, the student should be able to:
1.   Successfully apply the three basic hand-building techniques and the potential of each as structural and decorative elements.
2.   Apply an awareness of the varieties of materials and techniques of the glazing and firing processes.
3.   Use innovative and inventive problem solving, through creative decision-making and insightful articulation of finished ceramic vessels and sculptural forms.
4.   Exhibit an ability to generate creative ideas through three-dimensional visualization techniques.
5.   Apply color and color theory as it relates to three-dimensional form in the use of glazes and oxides.
6.   Utilize drawing as a tool for conceptualization and documentation of personal imagery and technical investigation of the ceramic process.
7.   Exhibit an awareness of the visual elements and the design principles while creating ceramic vessels and sculptural forms.
8.   Articulate the concepts and intent of a completed piece.

ART 244 Intermediate Ceramics: Wheel Throwing (3) KCC AA/DA
6 hours lecture/lab per week
Prerequisite(s): ART 105 or consent of instructor.
Comment: ART 244 is repeatable once for a maximum of six credits. Course materials and supplies will cost approximately $100.00.

ART 244 focuses on development of vessel and sculptural concepts using wheel throwing techniques.

Upon successful completion of ART 244, the student should be able to:
1.   Successfully apply through completed projects, a basic proficiency in wheel throwing techniques.
2.   Employ the skillful use of clay bodies in oxidation and reduction firing.
3.   Exhibit an awareness of the visual elements and the design principles while creating ceramic vessels and sculptural forms.
4.   Use innovative and inventive problem-solving strategies through creative processes.
5.   Exhibit an ability to generate creative ideas through three-dimensional visualization techniques.
6.   Utilize drawing as a tool for conceptualization and documentation of personal imagery and technical investigation of the ceramic process.
7.   Exhibit an ability to articulate insightfully, the concepts and intent of a finished ceramic object.
8.   Apply an awareness of color and color theory as it relates to glazing.

ART 245 Intermediate Life Drawing (3) KCC AA/DA
6 hours of lecture/lab per week
Prerequisite(s): ART 113, ART 214 or instructor consent.
Recommended Preparation: ART 270.
Comment: Course supplies will cost approximately $75.00. ART 245 may not be audited. ART 245 is repeatable for a maximum of six credits.

ART 245 focuses on further investigations of the human figure that address anatomical and diagrammatic construction, light, space, and thematic content.

Upon successful completion of ART 245, the student should be able to:
1.   Draw the human figure accurately with an improved level of performance in descriptive drawing.
2.   Demonstrate a working knowledge of the skeletal and musculature systems of the human figure.
3.   Demonstrate critical thinking in analyzing meaning and thematic content in the figurative tradition of drawings by past and modern masters.
4.   Work with and think independently about utilization of the human figure in advanced level courses, including advanced life drawing and animation studies.

ART 246 3D Computer Graphics III (3) KCC AA/DA
6 lecture/lab per week
Prerequisite(s): ART 226 with a grade of "C" or higher; approval of the 3D Computer Graphics III entrance portfolio review or acceptance into a New Media Arts AS concentration.
Comment: Letter grade and credit/no credit grading only. ART 246 may not be audited.

ART 246 explores advanced conceptual and technical topics in 3D computer graphics. Students will utilize a 3D animation and modeling software and related applications to design, model, surface, rig, animate, and render complex computer generated characters.

Upon successful completion of ART 246, the student should be able to:
1. Develop 3D models, character rigs, animations, and related art assets using advanced level technical skills, procedures, and production methodologies.
2. Employ appropriate modeling strategies to develop organic 3D character models.
3. Employ character setup tools to develop feature-rich character rigs suitable for animation.
4. Apply knowledge of the theory, history, and principles of design and animation in the creation new media art.
5. Apply successful problem-solving skills utilizing industry standard applications, technologies, and techniques in the creative and technical production process.
6. Communicate effectively, both visually and verbally, by presenting work, defending design decisions and by participating as an active critic during group critiques.
7. Develop 3D content that reflects contemporary industry standards for 3D characters in filmic and non-filmic media.

ART 247 Lighting and Rendering (3) KCC AA/DA
6 hours lecture/lab per week
Prerequisite(s): ART 112 with a grade of "C" or higher; approval of the Lighting and Rendering entrance portfolio review or acceptance into a New Media Arts AS concentration.
Comment: Letter grade and credit/no credit only. ART 247 may not be audited.

ART 247 explores concepts, tools, and techniques to create cinematic lighting, texturing, and rendering in computer generated imagery.

Upon successful completion of ART 247, the student should be able to:
1. Apply intermediate level and advanced concepts and principles of computer graphic lighting and camerawork in 3D environments.
2. Apply intermediate level and advanced concepts and principles of rendering in the creation of 3D artwork and/or animation.
3. Apply knowledge of the theory, history, and principles of lighting design in the creation of new media art.
4. Apply successful problem-solving skills utilizing industry standard applications, technologies, and techniques in the creative and technical lighting and rendering production process.
5. Communicate effectively, both visually and verbally, by presenting work, defending design decisions and by participating as an active critic during group critiques.
6. Synthesize the concepts and principles of 3D lighting, rendering, and camerawork in the creation of 3D art and animation that integrate conceptual thinking, technical execution, and aesthetic application.

ART 249 Interface Design II (3) KCC AA/DA
6 hours lecture/lab per week
Prerequisite(s): ART 128 with a grade of "C" or higher; ART 229 with a grade of "C" or higher; satisfactory completion of the Interface Design II entrance portfolio review or acceptance into a NMA AS concentration.
Comment: ART 249 may not be audited.

ART 249 integrates the foundation level visual interface design skills introduced in ART 229 Interface Design I with the technical interface programming skills introduced in ART 128 Interface Programming I. Students go through the full creative design process for interaction design of analyzing, planning, designing, coding, testing, and launching a custom designed web standard compliant HTML/CSS static web site for a proposed client. Students document their findings through client documentation and defend their design decisions via presentations and critiques.

Upon successful completion of ART 249, the student should be able to:
1. Apply intermediate level and advanced concepts and principles of interface design and interface programming in the creation of client-based interactive applications.
2. Utilize industry standard graphics editing software and web standard compliant markup and styling to create visually effective interactive client-based interfaces.
3. Apply knowledge of the theory, history, and principles of interface design in the creation new media art.
4. Apply successful problem-solving skills utilizing industry standard applications, technologies, and techniques in the creative and technical production process.
5. Communicate effectively, both visually and verbally, by presenting work, defending design decisions, and by participating as an active critic during group critiques.
6. Synthesize the concepts and principles of graphic design, interface design, and interface programming in the creation of interactive interfaces that integrate conceptual thinking, technical execution, and aesthetic application.

ART 253 Figure Modeling (3) KCC AA/DA
6 hours lecture/lab per week

Prerequisite(s): ART 116 or instructor consent.

ART 253 focuses on modeling the human figure in clay, with emphasis on the basic skeletal structure and muscles in relation to surface modulation, proportion, volume and gesture.

Upon successful completion of ART 253, the student should be able to:
1. Successfully use a variety of tools, processes, and techniques in the development of three-dimensional figure and portrait modeling, mold-making, fabrication, and the casting process and materials.
2. Successfully apply the visual elements of art and principles of design.
3. Complete the creative problem solving process from the preliminary planning stage and exploration through revisions to the final product.
4. Effectively write about and defend the conceptual merits of work produced for the course.
5. Apply an ability to articulate the concepts and intent of a finished sculpture.

ART 256 Digital Compositing (3) KCC AA/DA
6 hours lecture/lab per week
Prerequisite(s): ART 226 with a grade of "C" or higher; approval of the Digital Compositing entrance portfolio review or acceptance into a New Media Arts AS concentration.
Comment: Letter grade and credit/no credit only. ART 256 may not be audited.

ART 256 covers the theory and art of digitally combining 2D and 3D source images to produce an integrated result. Emphasis will also be placed on developing aesthetic criteria for evaluation purposes.

Upon successful completion of ART 256, the student should be able to:
1. Analyze both the technical and aesthetic issues of compositing.
2. Demonstrate the skills to create the digital composite and the artistic eye to critically evaluate the final composition.
3. Apply the concepts of digital compositing: image manipulation, color correction, tracking, compositing operators, channels, mattes, and matte extraction to work effectively with 2D, 3D, and live action imagery.
4. Use the technical vocabulary of digital compositing as well as an increased familiarity with the language of art to aid in the integration of the technological skill with an aesthetic criterion.
5. Demonstrate the skill to match color and lighting, to perceive camera angles and depth of field to match a backplate.
6. Use problem-solving strategies to complete the creative process from concept development through revisions to final output.
7. Demonstrate strong group communication skills and the ability to speak clearly during critiques.

ART 257 Motion Graphic Design (3) KCC AA/DA
6 hours lecture/lab per week
Prerequisite(s): ART 202 with a grade of "C" or higher; approval of the Motion Graphic Design portfolio review or acceptance into a NMA AS concentration.
Comment: ART 257 may not be audited.

ART 257 Motion Graphic Design introduces the basic principles of animation and motion graphics through the creation of time-based works of art. Building upon a foundation of skills in digital art and graphic design, students go through the full creative process of planning, designing, and animating motion graphics that integrate image, text, and audio.

Upon successful completion of ART 257, the student should be able to:
1. Apply basic concepts and principles of graphic design, computer animation, and narrative storytelling in the creation of time-based works of motion graphics.
2. Utilize industry standard technologies and techniques to animate the basic elements of motion graphic design including image, typography, and sound to deliver time-based media content for the web, TV, and film.
3. Apply knowledge of the theory, history, and principles of interface design in the creation new media art.
4. Apply successful problem-solving skills utilizing industry standard applications, technologies, and techniques in the creative and technical production process.
5. Communicate effectively, both visually and verbally, by presenting work, defending design decisions, and by participating as an active critic during group critiques.
6. Synthesize the principles of motion graphic design using the individual elements of image, text, and sound in the creation of time-based digital works of art that communicate conceptual ideas, technical execution, and aesthetic application.

ART 258 Interface Programming II (3) KCC AA/DA
6 hours lecture/lab per week
Prerequisite(s): ART 128 with a grade of "C" or higher; approval of the Interface Programming II portfolio review or acceptance into a NMA AS concentration.
Recommended Preparation: A minimum of one year of high school algebra, or its equivalent, is recommended as a background to succeed in this course.
Comment: ART 258 may not be audited.

ART 258 Interface Programming II builds upon the foundation level HTML, CSS, and JavaScript concepts introduced in ART 128 Interface Programming I. Through lessons, demonstrations, and hands-on-exercise, this course aims to develop intermediate skills in contemporary interface programming practices. Weekly topics will address emerging and popular interface programming techniques and technologies.

Upon successful completion of ART 258, the student should be able to:
1. Apply intermediate level and advanced concepts and principles of interface programming in the creation of interactive interfaces and applications.
2. Utilize emerging and contemporary markup, styling, and scripting technologies to create effective interactive client-based interfaces.
3. Apply knowledge of the theory, history, and principles of interface design in the creation new media art.
4. Apply successful problem-solving skills utilizing industry standard applications, technologies, and techniques in the creative and technical production process.
5. Communicate effectively, both visually and verbally, by presenting work, defending design decisions, and by participating as an active critic during group critiques.
6. Synthesize the concepts and principles of interface programming with emergent technologies in the creation of interactive interfaces that integrate conceptual thinking, technical execution, and aesthetic application.

ART 259 Gaming and Real-time Computer Graphics (3) KCC AA/DA (Inactive)
3 hours lecture per week
Prerequisite(s): ART 226 with a grade of "C" or higher; approval of the Gaming and Real-time entrance portfolio review or acceptance into a NMA AS concentration.
Comment: ART 259 is currently inactive. ART 259 may not be audited.

ART 259 is a studio experience in gaming and real-time computer graphics techniques. Emphasis will also be placed on developing aesthetic criteria for evaluation purposes.

Upon successful completion of ART 259, the student should be able to:
1. Discuss and create relevant contemporary responses to gaming and real-time computer graphics.
2. Effectively use the vocabulary and technological processes of gaming and real-time computer graphics.
3. Analyze interactive architectures and their relationship to conventional time-based media.
4. Use modern production methodologies of the Video Game Industry in creating individual projects.
5. Utilize game technology to realize personal interactive artworks.
6. Complete the process from planning stage through revisions to a proposed project using design outlines.
7. Create storyboards, production designs, and model sheets as part of the developmental process.
8. Use problem-solving strategies to complete the creative process from concept development through revisions to final output.
9. Properly use the tools for storing, searching, retrieving, and transmitting digital information.
10. Apply the visual elements of line, shape, value, color, texture, space, time, and motion as well as the design principles of balance, rhythm, emphasis, contrast, variation, repetition, and unity in digital projects.
11. Work effectively as a team member to achieve creative decisions.
12. Demonstrate strong group communication skills and the ability to speak clearly during critiques.
13. Write about and defend the conceptual merits of work produced for the course.

ART 260 Gallery Design and Management (3) Spring
6 hours lecture /lab per week
Prerequisite(s): ART 101, ART 113, ART 115, or instructor consent.
Comment: ART 260 is offered in the spring semester only.

ART 260 includes design application and presentation of visual art and cultural artifacts for exhibits on campus and other related venues. The course offers intensive hands on experience of all aspects of exhibit design, from planning to installation.

Upon successful completion of ART 260, the student should be able to:
1. Integrate design principles and visual elements into an applied cohesive end result, exhibits that are thoughtfully presented, pleasing to look at, and easy to follow.
2. Work with a variety of professional and student artist and art media, assisting with visual problem solving and finding display solutions to work being presented.
3. Describe contemporary art issues, art vocabulary, explain ideas and content being presented in the contemporary Honolulu art scene.
4. Learn to work as a member of a team to find the best end result.
5. Troubleshoot problems in large and small exhibits, from beginning to end.
6. Demonstrate basic preparations skills, proper tools, equipment, and supplies typically found in the majority of public and private art venues in the state and on the mainland.

ART 269 Study Abroad (1-3) KCC AA/DA Summer
30 hours lecture/lab per credit
Prerequisite(s): Appropriate introductory studio art or art history course, or consent of instructor.
Recommended Preparation: ART 113 or ART 270.
Comment: ART 269 is offered in the summer semester only.

ART 269 (Alpha) is an on-site study of the art/architecture of a designated location(s), using lectures and discussions and/or an art studio medium as a tool to analyze, understand and appreciate the development of this region's art/architecture.

Upon successful completion of ART 269, the student should be able to:
1. Contrast and compare, through writing and a studio art medium, the peoples and culture of the designated location(s) visited.
2. Analyze, define and compare the development of the art and/or architecture of the designated location(s) visited.
3. Use group discussions, essays and examinations, and /or a visual studio process as a tool to analyze, and appraise the form and structure of the art/architecture studied.

ART 270 Introduction to Western Art (3) KCC AA/DH
3 hours lecture per week
Recommended Preparation: ART 101 or HIST 151.

ART 270 focuses on major developments in Western art from prehistory to present.

Upon successful completion of ART 270, the student should be able to:
1. Investigate and evaluate the understanding that art is a visible manifestation of cultural values, mirror of "reality" of its time period.
2. Show a knowledge of major historical and cultural trends of Western art, including knowledge of various materials, techniques, and art forms.
3. Examine and evaluate the present by comparing and contrasting it with the past.
4. Analyze style both descriptively and comparatively.
5. Demonstrate a knowledge of the diffusion of trends and styles from one country to another over space and time.
6. Incorporate writing as a tool for analyzing art forms.

ART 280 Introduction to Eastern Art (3) KCC AA/DH
3 hours lecture per week
Recommended Preparation: ART 101 or HIST 151.

ART 280 focuses on major developments in arts of Asia.

Upon successful completion of ART 280, the student should be able to:
1. Apply an awareness that art is a visible manifestation of cultural values and as a "child of its time."
2. Show a knowledge of major historical and cultural trends of Eastern art, including knowledge of various materials, techniques, and art forms.
3. Apply an awareness of the present by comparing and contrasting it with the past.
4. Apply a knowledge of the diffusion of trends and styles from one country to another over space and time.
5. Analyze style both descriptively and comparatively.
6. Incorporate writing as a tool for analyzing art forms.

ART 284 Animation Studio (3) KCC AA/DA
6 hours lecture/lab per week
Prerequisite(s): ART 126 with a grade of "C" or higher; ART 212 with a grade of "C" or higher; approval of the Animation Studio portfolio review or acceptance into a New Media Arts AS concentration.
Comment: Letter grade and credit/no credit only. ART 284 may not be audited. ART 284 is repeatable for maximum of six credits.

ART 284 explores contemporary topics in animation and new media art in an advanced studio environment. Through the creation of large-scale projects, students will explore targeted areas of the CG pipeline, developing work that synthesizes animation principles, topics, skills, and techniques.

Upon successful completion of ART 284, the student should be able to:
1. Through the creation of a large-scale new media art project, apply advanced concepts and principles of 3D computer graphics technologies.

2. Develop project concepts, plan production schedules, conduct research, and execute all iterative steps to meet project milestones and achieve creative objectives.
3. Apply theoretical and historically relevant principles of animation in the creation of new media art.
4. Apply successful problem-solving skills and make informed decisions while utilizing industry standard applications, technologies, and techniques throughout the full creative process and CG pipeline.
5. Communicate effectively, both visually and verbally, by presenting work, defending design decisions and by participating as an active critic during group critiques.
6. Synthesize the concepts, principles, skills, and techniques of 3D computer graphics and animation in the creation of a large-scale project that integrates multiple stages of the CG pipeline along with conceptual thinking, technical execution, and aesthetic application.

ART 285 Interface Design Studio (3) KCC AA/DA
6 hours lecture/lab per week
Prerequisite(s): ART 128 with a grade of "C" or higher; ART 229 with a grade of "C" or higher; approval of the Interface Design Studio portfolio review or acceptance into a NMA AS concentration.
Recommended Preparation: A minimum of one year of high school algebra, or its equivalent, is recommended as a background to succeed in this course.
Comment: ART 285 may not be audited. ART 285 is repeatable for maximum of six credits.

ART 285 explores contemporary topics in interface design and new media art in an advanced studio environment. Through the creation of large-scale projects, students explore in depth the full design process of researching, planning, designing, producing, and displaying work that synthesizes interface design principles, topics, skills, and techniques.

Upon successful completion of ART 285, the student should be able to:
1. Through the creation of a large-scale new media art project, apply advanced concepts and principles of graphic design and interface design technologies.
2. Develop conceptual project ideas, plan a full production schedule, and execute all iterative steps and phases of the full design process by meeting project milestones and deadlines.
3. Apply theoretical and historically relevant principles of graphic design and interface design in the creation of new media art.
4. Apply successful problem-solving skills and make informed design decisions while utilizing industry standard applications, technologies, and techniques throughout the full creative and technical design process.
5. Communicate effectively, both visually and verbally, by presenting work, defending design decisions and by participating as an active critic during group critiques.
6. Synthesize the concepts, principles, skills, and techniques of interface design in the creation of a large-scale project that integrates conceptual thinking, technical execution, and aesthetic application.

ART 288 Kaomi Pohaku `Ia: Intermediate Hawaiian Two-Dimensional Art (3) KCC AA/DA
6 hours lecture/lab per week
Prerequisite(s): ART 189 or consent of instructor.
Recommended Preparation: HAW 101, HAW 102.
Comment: Course supplies and materials will cost approximately $150.00. ART 288 will be deleted effective fall 2016.

ART 288 studio art offers students an exploration of the principles and values in Kanaka Maoli two-dimensional visual design through the centuries of its development in Hawai'i.

Upon successful completion of ART 288, the student should be able to:

1. Apply an awareness of mo'olelo in Hawaiian culture and recognize its two-dimensional visual equivalents in Hawaiian art and design.
2. Exhibit an awareness of Hawaiian two-dimensional art and design as a manifestation of a Hawaiian interpretation of one's place in the family, community and Hawaiian nation.
3. Apply the importance and interconnectedness between Hawaiian two-dimensional art and design and the Hawaiian language, it's use, syntax and symbolism.
4. Complete the creative problem solving process from the preliminary planning stage and exploration through study and revision to the final product.
5. Skillfully utilize various two-dimensional art-making techniques and processes to express personal imagery.
6. Use strong communication skills and speak clearly during critiques.

ART 290 The Arts of Africa, Native Americas, and the Pacific (3) KCC AA/DH
3 hours lecture per week
Recommended Preparation: ART 101 or HIST 151.

ART 290 focuses on formal and contextual study of art from selected areas in Africa, the Pacific and Native Americas.

Upon successful completion of ART 290, the students should be able to:
1. Apply an awareness of art as a visible manifestation of cultural values and cultural identities. Be better able to define one's own cultural identity.
2. Show a knowledge of cultural trends in art making to include the application of various materials, techniques and art forms.
3. Show an awareness of the basic overlapping themes as to why tribal societies produce art to include creation, myth and genealogy, the importance of gender, ancestors, status and display, the roles of fertility, shamans and funerals.
4. Apply a knowledge of the present day role of art by comparing or contrasting its function in the past.
5. Show an awareness of the interactive roles that society, religion, politics and urbanization have played in the art making process.
6. Critically examine the impact of western contact, colonization, decolonization and a global economy on the visual arts.
7. Apply critical thinking and inquiry skills to the analysis and processing of information.
8. Incorporate writing as a tool for analyzing art forms.

ART 293 Internship (2) KCC AA/DA
6 hours seminar, 150 hours field experience
Prerequisite(s): Satisfactory completion of the Internship entrance portfolio review or acceptance into a New Media Arts AS concentration.
Comment: ART 293 may not be audited. Letter grade and credit/no credit grading only. ART 293 is repeatable for maximum of six credits.

ART 293 provides supervised work experience in multimedia production with mentorship by a professional in the field. This variable credit course enables students to apply the knowledge and skills acquired in the classroom to the work environment.

Upon successful completion of ART 293, the student should be able to:
1. Develop skills and support materials for procurement of internship in the field of New Media.
2. Apply knowledge of the theory, history, and principles of design and animation in the creation new media art.
3. Apply successful problem-solving skills utilizing industry standard applications, technologies, and techniques in the creative and technical production process.
4. Communicate effectively, both visually and verbally, by presenting work, defending design decisions, and by participating as an active critic during group critiques.
5. Supervised and/or mentored field experience in multimedia production.

ART 294 Practicum in Digital Arts (3) KCC AA/DA
6 hours lecture/lab per week
Prerequisite(s): ART 202 with a grade of "C" or higher; satisfactory completion of the New Media Arts Practicum entrance portfolio review or acceptance into a New Media Arts AS concentration.
Comment: Letter grade and credit/no credit only. ART 294 may not be audited. ART 294 is repeatable for maximum of six credits.

ART 294 provides an on-campus environment where advanced students in the New Media Arts program can engage in real production activity. Students will gain experience in a supervised on-campus work environment by producing work products including but not limited to 2D and 3D animation and /or motion graphic projects, interface design projects, student publications, works for hire for non-profit and profit organizations, and/or works for hire for the community college system. ART 294 will operate in a manner similar to business and industry and students will be expected to work in teams carrying out all necessary production tasks within real production deadlines. The students will be enrolled in a Practicum class to provide structure to the learning experience.

Upon successful completion of ART 294, the student should be able to:
1. Understand the basic principles of task organization and time management as they apply to the multimedia production.
2. Develop skills and support materials for procurement of employment or college transfer in the field of New Media.
3. Apply knowledge of the theory, history, and principles of design and animation in the creation new media art.
4. Apply successful problem-solving skills utilizing industry standard applications, technologies, and techniques in the creative and technical production process.
5. Communicate effectively, both visually and verbally, by presenting work, defending design decisions, and by participating as an active critic during group critiques.
6. Work effectively as a team member to design and produce a short animation.

ART 295 Design Portfolio (3) KCC AA/DA
6 hours lecture/lab per week
Prerequisite(s): ART 249 with a grade of a grade of "C" or higher; ART 258 with a grade of a grade of "C" or higher; satisfactory completion of the Design Portfolio entrance portfolio review or acceptance into a New Media Arts AS concentration.
Comment: ART 295 may not be audited.

ART 295 guides students through the process of editing, compiling, and devising a strategy to focus their work to best market their skills through an interactive digital portfolio, hard copy portfolio, and application materials through a unified presentation. Industry and transfer issues will be covered to better prepare students for future career goals.

Upon successful completion of ART 295, the student should be able to:

1. Edit, compile and devise a strategy to focus and market multi-media work in a unified presentation.
2. Develop skills and support materials for procurement of employment or college transfer in the field of New Media.
3. Apply knowledge of the theory, history, and principles of design and animation in the creation new media art.
4. Apply successful problem-solving skills utilizing industry standard applications, technologies, and techniques in the creative and technical production process.
5. Communicate effectively, both visually and verbally, by presenting work, defending design decisions, and by participating as an active critic during group critiques.
6. Design an interactive digital portfolio and hard copy portfolio of personal multi-media work.

ART 296 Demo Reel Development (3) KCC AA/DA
6 hours lecture/lab per week
Prerequisite(s): ART 246 with a grade of "C" or higher; approval of the Demo Reel Development entrance portfolio review or acceptance into a New Media Arts AS concentration.
Comment: ART 296 may not be audited.

ART 296 guides students through the process of compiling a demo reel that is representative of student interest and skill for entry into industry, professional schools, or baccalaureate programs. Students will devise a strategy to edit, package, and market their work including a DVD, website, resume and related promotional materials.

Upon successful completion of ART 296, the student should be able to:

1. Organize art and animation into a portfolio that reflects clear aesthetic considerations and an awareness of industry standards.
2. Identify appropriate entry-level positions and describe relevant educational, professional, and technical requirements.
3. Write well-structured supporting materials including a resume and cover letter.
4. Apply knowledge of the theory, history, and principles of design and animation in the creation new media art.
5. Apply successful problem-solving skills utilizing industry standard applications, technologies, and techniques in the creative and technical production process.
6. Communicate effectively, both visually and verbally, by presenting work, defending design decisions and by participating as an active critic during group critiques.

ASIAN STUDIES

ASAN 100 Asian Perspectives (3) KCC AA/DS and KCC AS/SS and KCC AS/AH
3 hours lecture per week
Prerequisite(s): Qualification for ENG 100.

ASAN 100 examines the history and cultures of Asia. Students will explore systems of values and their expression, history, social and political institutions, and current issues of South, Southeast, and East Asia. This course will focus on change and continuity within the various regions of Asia, and this vast region's interrelationship with the rest of the world.

Upon successful completion of ASAN 100, the student should be able to:
1. Express in writing or speaking, components of traditional and contemporary Asian political, social, economic and cultural patterns and institutions.
2. Discuss the geography of Asia and interrelationships with the rest of the world.
3. Analyze and describe cultural, historical and contemporary issues and perspectives of Asia.
4. List and describe Asian cultural traditions, lifestyles, aesthetic expressions and their contemporary relevance.
5. Contrast and compare current trends of change in Asia and their relevance for the region and the world in the 21st century.

ASAN 201 Introduction to Asian Studies: East Asia (3) KCC AA/DH and KCC AS/AH
3 hours lecture per week
Prerequisite(s): Qualification for ENG 100; qualification for MATH 82.

ASAN 201 covers a broad range of disciplines in examining the parts of Asia currently known as China, Japan, Korea (including North and South), and Taiwan. Lectures and reading combine approaches from the fields of anthropology, sociology, history, literature and the arts, religion, politics and economics. The goal of the course is to provide students with a broad historical knowledge of elements of humanities and social sciences in this region of the world, and to provide a basis for further study in more advanced and specialized classes.

Upon successful completion of ASAN 201, the student should be able to:
1. Compare, contrast, and describe the ethnic groups of East Asia with other areas of the world.
2. Compare cultural, economic and political differences in the development of contemporary East Asia.
3. Explain the ways in which global forces have interacted with regional issues in East Asia.
4. Distinguish traditional and contemporary East Asian political, social, economic, and cultural patterns and institutions.
5. Identify the geography of East Asia and the interrelationship with the rest of the globe.
6. Analyze contemporary issues and perspectives of East Asian peoples reflected in the mass media and other sources.
7. Define East Asian cultural traditions, lifestyles, and aesthetic expressions, and their contemporary relevance.

ASAN 202 Introduction to Asian Studies: South/Southeast Asia (3) KCC AA/DH and KCC AS/AH
3 hours lecture per week
Prerequisite(s): Qualification for ENG 100; qualification for MATH 82.

ASAN 202 examines the interrelationship of policies, economy, literature, religion, the arts, and history as the basis for understanding South and Southeast Asia through multidisciplinary approaches in the humanities and social sciences. Lectures and reading combine perspectives from the fields of anthropology, sociology, history, literature, the arts, religion, politics and economics. The goal of the course is to provide students with historical and cultural knowledge of the countries of South and Southeast Asia and to provide a solid foundation for further study.

Upon successful completion of ASAN 202, the student should be able to:
1. Explain how environment and global forces have interacted with regional issues in South and Southeast Asia.
2. Describe and make informed comparisons about cultural, economic and political differences in the development of contemporary South and Southeast Asia.
3. Distinguish traditional and contemporary South and Southeast Asian political, social, economic, and cultural patterns and institutions.
4. Identify the geography of South and Southeast Asia and the interrelationship with the rest of the globe.
5. Analyze contemporary issues and perspectives of South and Southeast Asian peoples reflected in the mass media and other sources.
6. Define South and Southeast Asian ethnic groups, cultural traditions, lifestyles, and aesthetic expressions, and their contemporary relevance.

ASTRONOMY

ASTR 110 Survey of Astronomy (3) KCC AA/DP and KCC AS/NS
3 hours lecture per week
Prerequisite(s): Qualification for MATH 88
Recommended Preparation: PHYS 100, PHYS 122 or high school physics.

ASTR 110 is a survey of astronomy and astronomical measurement techniques with emphasis on the structure, evolution and dynamics of the physical universe.

Upon successful completion of ASTR 110, the student should be able to:

1. Explain how scientists use both qualitative and quantitative analysis methods to investigate how the universe works.

2. Identify the basic laws of physics that govern the movements and workings of the planets, stars, and galaxies.
3. Identify the instruments and methods astronomers use to investigate the physical universe.
4. Explain the nature, characteristics, and distribution of various forms of matter in the physical universe.
5. List the current theories of the origin of life in the physical universe.
6. Define the theories of the origin and evolution of the planets, stars, galaxies, and the universe itself.

ASTR 280 Evolution of the Universe (3) KCC AA/DP and KCC AS/NS (Inactive)
3 hours lecture per week
Prerequisite(s): ASTR 110; MATH 25.
Recommended Preparation: ENG 100.

ASTR 280 is an introductory course, with limited mathematical rigor, pertaining to the study of phenomena on a galactic scale. Topics that will be discussed are the history of cosmology and how our perceptions of the universe have changed, stellar evolution and exotic remnants, galactic formation, dark matter, and the inflationary universe. Modern problems dealing with current research topics will also be discussed.

Upon successful completion of ASTR 280, the student should be able to:

1. Explain the Copernican ideal and how it pertains to modeling the universe.
2. Understand the special theory of relativity and its effects: time dilation, mass dilation, and space contraction.
3. Explain the general theory of relativity and its effect: Gravity.
4. Explain how the Planck scale limits our knowledge of the initiating mechanisms for the current universe.
5. Discuss theory on how we believe our galaxy formed.
6. Discuss theory on how we believe some of the more exotic galaxies formed.
7. Explain Hubble's constant, how it is measured, and its implications: the age of the universe.
8. Discuss the problem of dark matter, its nature, and implications for the large scale structure of the universe.
9. Explain the modern inflationary model of the universe.

BIOCHEMISTRY

BIOC 141 Fundamentals of Biochemistry (3) KCC AA/DP
3 hours lecture per week
Prerequisite(s): A grade of "C" or higher in MATH 82 or higher-level mathematics, or one year of high school algebra.
Recommended Preparation: Two years of high school algebra, or MATH 103 or higher-level mathematics course.

BIOC 141 focuses on the fundamentals of general, inorganic, and bioorganic chemistry as they apply to living systems.

Upon successful completion of BIOC 141, the student should be able to:
1. Use the metric system and scientific notation.
2. Explain modern theories of atomic structure and radioactivity.
3. Explain the periodic table and how it is used to predict chemical reactivity.
4. Explain modern concepts of chemical bonding.
5. Write chemical formulas and names.
6. Use kinetic molecular theory to explain chemical phenomena.
7. Perform calculations using the mole concept.
8. Write and balance chemical equations.
9. Perform calculations in stoichiometry.
10. Explain the concept of equilibrium.
11. Explain acid-base theory and pH.
12. Explain solution chemistry and the behavior of dissolved substances.
13. Name the basic types of organic molecules.
14. Explain the physical and chemical properties of hydrocarbons.
15. Explain the physical and chemical properties of the major organic functional groups.

BIOC 244 Essentials of Biochemistry (3) KCC AA/DP

3 hours lecture per week
Prerequisite(s): BIOC 141, BIOC 241, CHEM 100, CHEM 151, CHEM 161, successful completion of a college level general chemistry course.
Recommended Preparation: BIOL 101 or other BIOL course; Qualification for ENG 100.

BIOC 244 focuses on the chemical principles and concepts of living systems, with emphasis on the composition, function, and transformation of biological substances in animals, plants, and microorganisms. Sufficient organic chemistry is provided for understanding of these principles.

Upon successful completion of BIOC 244, the student should be able to:
1. Use bonding theory to predict Lewis structures for inorganic and organic molecules, then use Lewis structures to predict chemical and physical properties.
2. Use International Union of Pure and Applied Chemistry (IUPAC) nomenclature to name organic molecules with a single functional group.
3. Draw the Lewis structure for organic molecules and for the basic biomolecules including both structural isomers and optical isomers.
4. Describe the basic chemical reactions for all of the basic functional groups in organic and biomolecules.
5. Apply knowledge of organic functional groups to lipids, carbohydrates, proteins, nucleic acids, and messenger molecules to predict their biochemical properties.
6. Describe the biological function of biomolecules in cells and in tissues and organs.
7. Describe the structure and function of nucleic acids in cellular processes such as protein synthesis and both asexual cell division and sexual reproduction.
8. Describe the basics of DNA sequencing, bioengineering, and gene manipulation, and explain how DNA sequencing of genes can be used to understand and cure diseases as well as understand and study evolution.

BIOLOGY

BIOL 101 Biology and Society (3) KCC AA/DB and KCC AS/NS
3 hours lecture per week
Recommended Preparation: ENG 100 or higher-level English course; CHEM 100 or higher-level Chemistry course.

BIOL 101 introduces students to the process of science through the biological sciences including the historical development of scientific concepts and the interaction of society with science. BIOL 101 is primarily designed to serve non-science majors and presents a broad survey of biology with special emphasis on its relevance in our everyday lives.

Upon successful completion of BIOL 101, the student should be able to:
1. Connect the common themes and patterns that unite all life, including demonstrating how evolution is the foundation of modern biology.
2. Integrate the biotic and abiotic world with an understanding of earth's energy flow and identify challenges and solutions to global ecological issues.
3. Employ the scientific process and apply a scientific framework to decision-making regarding issues past, present and future.
4. Communicate why Hawai'i is a unique place on earth and propose scientifically based mediations to biological problems.

BIOL 101L Biology and Society Laboratory (1) KCC AA/DY
3 hours lab per week
Prerequisite(s): Credit or concurrent enrollment in BIOL 101.
Recommended Preparation: CHEM 100 or higher-level chemistry course.
Comment: Letter grade only. BIOL 101L may not be taken credit/no credit. BIOL 101L may not be audited.

BIOL 101L is a laboratory to accompany BIOL 101 Biology and Society. The course includes laboratory and computer exercises, field trips and research projects to explore questions in biology.

Upon successful completion of BIOL 101L, the student should be able to:
1. Apply scientific methods and research procedures to investigate questions related to biology.
2. Employ proper techniques and procedures for biological investigations such as: microscopy, magnification, population sampling, scientific illustration, dissection, data collection and data analysis.
3. Research, evaluate and present scientific information as relevant to issues in biology and society.

BIOL 124 Environment and Ecology (3) KCC AA/DB and KCC AS/NS
3 hours lecture per week

Prerequisite(s): A grade of "C" or higher in ENG 22, qualification for ENG 100 or ESL 100.

BIOL 124 examines the relationship between living things, including humans, and their environment. The course introduces major concepts of ecology and relates these concepts to environmental issues. Topics include the structure and function of ecosystems, evolutionary processes, population biology, extinction, sustainability and global climate change. Emphasis is placed on Hawaiian environment and ecology and the diversity of native Hawaiian species.

Upon successful completion of BIOL 124, the student should be able to:
1. Describe the biological and physical principles of ecology including ecosystem energetics, species relationships, and population growth.
2. Identify current ecological and environmental issues and threats to human societies.
3. Identify Hawai'i's major ecosystems and list factors that threaten the long-term persistence of those ecosystems and compare Hawai'i's ecology and environment, including evolutionary history, to other areas around the world.
4. Research, evaluate and present scientific information as relevant to ecological and environmental issues.
5. Apply ecological principles to problem-solving approaches to current human environmental issues, including sustainability in human societies.

BIOL 124L Environment and Ecology Lab (1) KCC AA/DY
3 hours lab per week
Prerequisite(s): Credit or concurrent enrollment in BIOL 124.
Recommended Preparation: Credit in, concurrent enrollment in, or qualification for MATH 100.
Comment: Letter grade only. BIOL 124L may not be audited. BIOL 124L may not be taken credit/no credit.

BIOL 124L is a laboratory to accompany BIOL 124 Environment and Ecology. The course includes laboratory and computer exercises, field trips and research projects to examine the relationship between living things, including humans, and their environment. Emphasis is placed on Hawaiian environment and ecology and the diversity of native Hawaiian species.

Upon successful completion of BIOL 124L, the student should be able to:
1. Describe the applications of the scientific method to ecological questions and everyday life.
2. Demonstrate critical thinking and logical reasoning through the use of scientific methods and research procedures to investigate questions related to ecology and environmental issues.
3. Apply scientific concepts to environmental issues including population growth, global climate change and introduced species.
4. Research, evaluate and present scientific information as relevant to ecological and environmental issues.

BIOL 130 Anatomy and Physiology (4) KCC AA/DB and KCC AS/NS
4 hours lecture per week
Recommended Preparation: CHEM 100 or higher or biochemistry course; a college level biology or zoology course.

BIOL 130 focuses on the structure and function of the human body that includes a study of its gross anatomy, microanatomy, physiology, pathology, and pathophysiology.

Upon successful completion of BIOL 130, the student should be able to:

1. Describe the structural and functional relationships of the body as a whole, its systems, and its organs.
2. Analyze the structure and function of the cell and its interactions with the environment.
3. Discuss the structure of the skeletal and muscular organs and relate to locomotion and support.
4. Describe the ultrastructure of skeletal muscle and the mechanism of muscular contraction.
5. Describe the anatomy and physiology of the endocrine system, and relate hormonal regulation to the pathophysiology of the body.
6. Describe the role of the nervous system in functional control of the body, describe the nerve impulse mechanism, explain the role of the autonomic nervous system in homeostatic maintenance, and analyze the integration of sensation.
7. Discuss the anatomical structures and components of the cardiovascular and lymphatic systems, and explain cardiovascular and immune physiology.
8. Describe the anatomical structures of the respiratory system and explain pulmonary physiology.
9. Describe the anatomy of the digestive system, and analyze the physiological changes of the digestive process.
10. Describe the anatomy of the urinary system, and explain how the urinary organs function in the removal of cellular wastes from the blood and transport the wastes from the body.
11. Explain the role of fluids, the movement of ions, and acid-base balance in maintaining the homeostasis of the body.
12. Describe the anatomical structures of the reproductive system and their functions, including the human sexual response.

BIOL 130L Anatomy and Physiology Lab (1) KCC AA/DY
3 hours lab per week
Recommended Preparation: Credit or concurrent enrollment in BIOL 130.

BIOL 130L focuses on the structure of the human body, which includes a study of its gross anatomy and microanatomy. Topics covered include histology and the following organ systems: integumentary, skeletal, muscular, nervous, endocrine, cardiovascular, respiratory, digestive, urinary, and reproductive.

Upon successful completion of BIOL 130L, the student should be able to:
1.   Identify and discriminate anatomical structures at the level of the cell, tissue, organ, and system.

BIOL 171 Introduction to Biology I (3) KCC AA/DB
3 hours lecture per week
Prerequisite(s): Credit or concurrent enrollment in CHEM 161.
Recommended Preparation: BIOC 241, BIOL 101, BIOL 124, CHEM 100 (or concurrent), and/or ZOOL 200. It is strongly recommended to take BIOL 171L concurrently with BIOL 171.

BIOL 171 is the first semester of an introductory biology course appropriate for all life science majors. Topics covered include: cell structure, chemistry, growth and reproduction; DNA replication, transcription and translation; gene regulation, genetics, evolution, viruses, and bacteria.

Upon successful completion of BIOL 171, the student should be able to:

1.   Describe the fundamental biology of the cell, including cell anatomy, biochemical composition, cellular metabolism, respiration and photosynthesis, communication, growth and reproduction.
2.   Describe the fundamentals of Mendelian genetics, the chromosomal and molecular basis of heredity and apply these concepts to the mechanisms of evolution.
3.   Describe the process of DNA replication and DNA transcription and translation from gene to protein, including gene regulation and apply these processes to the reproduction and metabolism of the cell.
4.   Describe the principles of evolution through natural selection, the principles of descent with modification, the mechanisms involved in the evolution of populations and the origin of species.
5.   Describe the history of life on Earth and the evolutionary relatedness of life on Earth through morphological and molecular phylogenies.
6.   Describe the fundamental structure and function of viruses and bacteria.

BIOL 171L Introduction to Biology I Lab (1) KCC AA/DY
3 hours lab per week
Prerequisite(s): Credit or concurrent enrollment in BIOL 171
Recommended Preparation: BIOC 241, BIOL 101L, BIOL 124L, CHEM 100L (or concurrent), and/or ZOOL 200L. It is strongly recommended to take BIOL 171L concurrently with BIOL 171.
Comment: Letter grade and credit/no credit only. BIOL 171L may not be audited.

BIOL 171L accompanies the BIOL 171 lecture course. Topics covered include: scientific method, biological molecules, enzyme kinetics, proper technique of compound and stereo microscopes, respirometry, photosynthesis, cultivation of bacteria, molecular biology, meiosis and mitosis in plant and animal cells, principles of Mendelian genetics, population genetics, evolution.

Upon successful completion of BIOL 171L, the student should be able to:

1.   Demonstrate proper use of common lab equipment such as compound and stereo microscopes, respirometer, micropipettors, centrifuges, laboratory glassware, spectrophotometer.
2.   Apply the scientific method to design and conduct experiments, generate, test and analyze hypotheses, and construct formal lab reports.
3.   Properly construct and interpret data tables, graphs and scientific illustrations.
4.   Demonstrate proper laboratory safety procedures and execute proper lab protocol.

BIOL 172 Introduction to Biology II (3) KCC AA/DB
3 hours lecture per week
Prerequisite(s): BIOL 171 or instructor consent.
Recommended Preparation: It is strongly recommended to take BIOL 172L concurrently with BIOL 172.

BIOL 172 is the second semester of an introductory biology course appropriate for all life science majors. Topics covered include: Anatomy and physiology of plants and animals, systematics of plants and animals, ecology of populations and communities, and ecosystem function.

Upon successful completion of BIOL 172, the student should be able to:

1. Describe the fundamental anatomy and physiology of protists, fungus and plants.
2. Describe the fundamental anatomy and physiology of animals.
3. Describe the relationship between animal form and function in terms of evolutionary history.
4. Describe the relationship between plant form and function in terms of evolutionary history.
5. Describe ecology, population biology, community ecology, and ecosystems ecology.

BIOL 172L Introduction to Biology II Lab (1) KCC AA/DY
3 hour lab per week
Prerequisite: Credit or concurrent enrollment in BIOL 172.
Recommended Preparation: It is strongly recommended to take BIOL 172L concurrently with BIOL 172.
Comment: Letter grade and credit/no credit only. BIOL 172L may not be audited.

BIOL 172L accompanies the BIOL 172 lecture course. Topics covered include: Protist and Fungus form and function; plant anatomy, reproduction and form and function; diversity of animal form and function and vertebrate anatomy, and ecology.

Upon successful completion of BIOL 172L, the student should be able to:

1. Demonstrate proper use of common lab equipment such as compound and stereo microscopes, and dissection techniques.
2. Apply the scientific method to design and conduct experiments, generate, test and analyze hypotheses, and construct formal lab reports.
3. Properly construct and interpret data tables, graphs and scientific illustrations.
4. Demonstrate proper laboratory safety procedures and execute proper lab protocol.
5. Demonstrate proper use of field equipment and sampling methods including transect tapes, quadrats, water quality and environmental monitoring devices, and other field gear.

BIOL 265 Ecology and Evolutionary Biology (3) KCC AA/DB
3 hours lecture per week
Prerequisite(s): BIOL 171 with a grade of "C" or higher; BIOL 172 with a grade of "C" or higher or BOT 101 with a grade of "C" or higher.
Comment: BIOL 265 may not be audited.

BIOL 265 Ecology and Evolutionary Biology will cover principles of ecology and evolution for life science majors stressing an integrated approach and recent advance. Emphasis is placed on Hawaiian ecology and evolutionary biology.

Upon successful completion of BIOL 265 the student should be able to:

1. Summarize the major principles of ecology and evolutionary biology and be able to integrate the two fields using examples.
2. Describe the ecological relationships among organisms and their environment.
3. Discuss the evolutionary relationships among organisms, the evolution of biodiversity and how evolution is the foundation of modern biology.
4. Demonstrate the ability to interpret biological data and discuss published research relevant to ecology and evolutionary biology.
5. Explain and give examples of Hawai'i's unique evolutionary history and ecology and discuss how they inform current conservation issues in Hawai'i, including the impacts of habitat modification and introduced species.

BIOL 265L Ecology and Evolutionary Biology Lab (1) KCC AA/DY
3 hours lab per week
Prerequisite(s): BIOL 171L with a grade of "C" or higher; BIOL 172L with a grade of "C" or higher or BOT 101L with a grade of "C" or higher; concurrent enrollment in BIOL 265 or instructor consent.

Comment: Letter grade only. BIOL 265L may not be audited. BIOL 265L may not be taken credit/no credit.

BIOL 265L is a laboratory that accompanies BIOL 265 and emphasizes investigation in Ecology and Evolutionary Biology.

Upon successful completion of BIOL 265L, the student should be able to:
1. Demonstrate the correct and safe use of standard field and laboratory techniques and equipment used in ecology and/or evolutionary biology.
2. Complete a scientific literature search and critique the value of printed and online references.
3. Design and carry out experiments that test hypotheses about ecological and evolutionary questions.
4. Demonstrate the ability to record observations, make interpretations, synthesize results and effectively communicate findings.
5. Explain and give examples of Hawai'i's unique evolutionary history and ecology.

BIOL 275 Cell and Molecular Biology (3) KCC AA/DB
3 hours lecture per week
Prerequisite(s): BIOL 171; BIOL 171L; CHEM 272; CHEM 272L or instructor consent
Recommended Preparation: Concurrent enrollment in BIOL 275L.

BIOL 275 is a course in cell and molecular biology for life science majors. This course is designed to give the student a fundamental understanding of the structure and biochemistry of eucaryotic and procaryotic cells. The course also covers the basic principles of molecular biology and includes modern advances in biotechnology, recombinant DNA technology and bioinformatics.

Upon successful completion of BIOL 275, the student should be able to:

1. Describe, in detail, the organization of life at the cellular and subcellular levels and explain the experiments that developed this knowledge.
2. Describe the theories explaining the development of eucaryotes and the evolution of multicellular organisms.
3. Describe the structure and function of biological membranes and the processes that occur at cell surfaces and explain the experiments that developed this knowledge.
4. Describe the molecular structures and the biochemistry of the cytoskeleton, intracellular traffic and motility and explain the experiments that developed this knowledge.
5. Describe the basic processes involved in intracellular and intercellular signaling and how these processes impact the cell cycle and cancer theory. Explain the experiments that developed this knowledge.
6. Describe the fundamental principles of molecular biology and molecular genetics as they relate to the inheritance of genetic traits; the structure, replication and repair of DNA; and the transcription, processing and translation of RNA. Explain the experiments that developed this knowledge.
7. Describe the fundamental principles of molecular biology and molecular genetics as they relate to biotechnology; the laboratory manipulation of DNA, RNA and proteins; and the ethical issues surrounding such research and applications.
8. Describe, in detailed and specific terms, the fundamental processes that occur in respiration and photosynthesis.

BIOL 275L Cell and Molecular Biology Lab (2) KCC AA/DY
4 hours of lecture/lab per week
Prerequisite(s): BIOL 171; BIOL 171L; CHEM 272; CHEM 272L; credit or concurrent enrollment in BIOL 275; or instructor consent.
Comment: BIOL 275L is cross-listed with MICR 240 and MICR 230.

BIOL 275L is a lecture/laboratory in cell and molecular biology for life science majors. The course is taken either concurrently or after BIOL 275. Through lectures and laboratory exercises, students will acquire a fundamental understanding of the biochemistry of the cell. Students will also acquire competence in tissue culture and experience with modern advances in biotechnology and recombinant DNA technology.

Upon successful completion of BIOL 275L, the student should be able to:
1. Demonstrate proficiency in aseptic technique and in all of the basic procedures used in tissue culture and in a cell biology laboratory.
2. Describe the basic principles of protein chemistry and molecular biology and apply these principles in the design and interpretation of experiments utilizing enzymatic reactions, pcr, electrophoresis and immunoassays.
3. Describe in detail the organization of life at the cellular and subcellular levels.
4. Describe the structure and function of biological membranes and demonstrate an understanding of the processes that occur at the cell surface.
5. Describe in detailed and specific terms the fundamental catabolic and anabolic metabolic processes that occur at the cellular level.
6. Describe and experimentally manipulate the cytoskeleton particularly as it relates to intracellular traffic, cytokinesis and cell motility.
7. Describe and debate the ethical issues surrounding existing and proposed research and applications using living cells.

BOTANY

BOT 101 General Botany (3) KCC AA/DB and KCC AS/NS
3 hours lecture per week
Recommended Preparation: ENG 100.

BOT 101 discusses growth, functions and evolution of plants, their relations to the environment and particularly to humans and their activities.

Upon successful completion of BOT 101, the student should be able to:
1. Demonstrate knowledge of the important biological concepts and theories (as cell theory, energy flow, photosynthesis, growth, reproduction, etc) and recognize that they may be explained in terms of the natural laws of physics and chemistry.
2. Know the unique anatomical characteristics of major plant groups and relate these structures to the functions they perform.
3. Demonstrate the basic knowledge of plant genetics and evolution of floral structures in terms of ecology and morphology.
4. Develop a balanced and pragmatic knowledge in Botany.

BOT 101L General Botany Laboratory (1) KCC AA/DY
3 hours lab per week
Prerequisite(s): Credit or concurrent enrollment in BOT 101.
Recommended Preparation: ENG 100.

BOT 101L focuses on laboratory observations and experiments illustrating basic principles of plant biology.

Upon successful completion of BOT 101L, the student should be able to:
1. Cultivate responsibility and mutual respect for each other, especially during the discussions.
2. Demonstrate the ability of critical thinking and logical reasoning through the use of the scientific method.
3. Work independently or in groups in the laboratory by performing observations, drawings, dissections and behavioral objectives.

BOT 105 Ethnobotany (3) KCC AA/DS and KCC AS/SS
3 hours lecture per week

BOT 105 is an introduction to plants and their influence upon the culture of Hawai`i and the Pacific. In BOT 105 the uses of cultivated and wild plants of the world are described.

Upon successful completion of BOT 105, the student should be able to:
1. Demonstrate the knowledge of habits, habitats, reproductions and interactions of plants and their environments.
2. Identify the role and influence played by plants on the culture of Hawai`i and Pacific.
3. Demonstrate a knowledge of the economic importance and ecology of cultivated as well as the wild plants in the world.
4. Understand and appreciate the complete dependence of all living things on plants.

BOT 130 Plants in the Hawaiian Environment (3) KCC AA/DB and KCC AS/NS
3 hours lecture per week
Recommended Preparation: ENG 100.

BOT 130 is an introduction to the plant species and communities of the Hawaiian ecosystems. It discusses the plant's evolution, ecology and economic values to humans. It also includes the observation and systematics of native and introduced flora.

Upon successful completion of BOT 130, the student should be able to:
1. Describe the geologic history of the Hawaiian islands.
2. Describe the arrival and establishment of native and introduced species.
3. Compare the major Hawaiian ecosystems.
4. Compare/contrast variations of plant parts and functions.
5. Recognize common native and introduced plant species.
6. Examine the ecology and economic values of plant species
7. Examine the effects of humans on the flora of the Hawaiian islands.
8. Examine the ecology and economic values of plant species.
9. Examine the effects of humans on the flora of the Hawaiian islands.

BOT 130L Plants in the Hawaiian Environment Laboratory (1) KCC AA/DY
3 hours lab per week
Prerequisite(s): Credit or concurrent enrollment in BOT 130.

BOT 130L focuses on observations of plant species, populations and communities as they interact with their environment through field survey methodologies and field trips. Students will become familiar with the taxonomy and ecology of native and introduced species.

Upon successful completion of BOT 130L, the student should be able to:

1. Demonstrate the ability of critical thinking and logical reasoning through the use of scientific method.
2. Work independently or in groups in the laboratory by performing observations, dissections and completing behavioral objectives of each laboratory exercise.
3. Identify and characterize major plant families, species and economic plants.
4. Explain the effects of environmental factors on plant adaptation, dispersal and distribution.

BOT 201 Plant Evolutionary Diversity (3) KCC AA/DB and KCC AS/NS
3 hours lecture per week
Prerequisite(s): BOT 101 or consent of instructor.
Corequisite(s): BOT 201L.
Recommended Preparation: ENG 100.

BOT 201 discusses evolutionary trends in the plant world, including reproductive, morphological and life history adaptations by algae, fungi and vascular plants.

Upon successful completion of BOT 201, the student should be able to:
1. Explain the role of evolution in plant diversity.
2. Distinguish between morphological and anatomical diversity among algae, fungi and plants.
3. Use the systematic botany to classify and name various species of algae, fungi and plants.
4. Describe the ecological niches of algae, fungi and plants.

BOT 201L Plant Evolutionary Diversity Laboratory (1) KCC AA/DY
3 hours lab per week
Corequisite(s): BOT 201.
Comment: Letter grade or credit/no credit; BOT 201L may not be audited.

BOT 201L applies the principles discussed in BOT 201 through laboratory experiences in the lab setting and out in the field or natural ecosystem.

Upon successful completion of BOT 201L, the student should be able to:
1. Identify and classify representative species of algae, fungi and vascular plants.
2. Sketch, classify and describe the various species of algae, fungi and vascular plants investigated in the laboratory
3. Prepare a scientific laboratory report with appropriate annotations.
4. Prepare herbarium specimens of appropriate species.
5. Apply the observational and experimental techniques and methodologies employed in the natural sciences.

BUSINESS

BUS 100 Using Mathematics to Solve Business Problems (3) KCC AA/FS and KCC AS/ML
3 hours lecture per week
Prerequisite(s): A grade of "C" or higher in MATH 75x, or a grade of "C" or higher in MATH 81, or placement at MATH 100 or higher-level mathematics; qualification for ENG 22 or ESOL 94.

BUS 100 is a survey of important elementary concepts in algebra, logical structure, numeration systems, and probability and statistics designed to acquaint students with examples of mathematical reasoning, and to develop their capacity to engage in logical thinking and to read critically the technical information with which our society abounds. The intent of this course is to present a broad knowledge of mathematical topics to assist students in exercising sound judgment in making personal and business decisions.

Upon successful completion of BUS 100, the student should be able to:

1. Analyze deductive arguments using elementary symbolic logic.
2. Explore general methods for determining probabilities.
3. Use statistical measures of central tendency and dispersion.
4. Find mean, median, mode, and standard deviation.
5. Use financial formulas as models. Derive effective yield, future value, mortgage payments. Describe the difference between compound interest savings accounts and annuities.
6. Use exponential models to explore growth and decay.

BUS 120 Principles of Business (3)
3 hours lecture per week
Recommended Preparation: ICS 101 and ENG 100 or ESL100.

BUS 120 surveys the fundamentals of the American business enterprise in the local, national, and global environments. The course examines the foundations and responsibilities of management, marketing, accounting, and finance as they interact in the business environment.

Upon successful completion of BUS 120, the student should be able to:
1. Identify the impact of local, national, and global external factors on business decisions relative to the accomplishment of the mission and objectives of an organization.
2. Define the various forms of business ownership to determine the appropriateness relative to an organization's resources, goals, and objectives.
3. Identify various business functions and practices -- including management, marketing, accounting, and finance -- and explain their impact on the successful operation of a business.
4. Identify legal, government, ethical and social responsibility issues or regulations affecting business decisions.

BUS 250 Applied Mathematics in Business (3) KCC AA/FS
3 hours lecture per week
Prerequisite(s): A grade of "C" or higher in MATH 103 or qualification for MATH 135.
Recommended Preparation: ICS 100 or ICS 101; qualification for ENG 100 or ESL 100.
Comment: Students are strongly encouraged to obtain a calculator with both graphing and financial capabilities prior to the first day of class.

BUS 250 covers the algebra and geometry of linear, quadratic, exponential, and logarithmic functions as applied to the mathematics of finance – annuities, perpetuities, present value and future value. BUS 250 also covers derivatives, indefinite integrals, graphical analysis, and mathematical models as applied to business, with selected coverage of algebra, geometry, and calculus emphasizing business applications and decision-making.

Upon successful completion of BUS 250, the student should be able to:
1. Solve linear, quadratic, exponential, and logarithmic equations with applications to business, such as solving for interest rates and various terms of investment.
2. Calculate present and future values (PV and FV) of simple and compound interest.
3. Solve for PV, FV, payment, interest, and duration of ordinary/due simple annuities, sinking funds, and constant growth annuities.
4. Apply formulas for interest to solve problems involving installment buying and credit card purchases.
5. Apply formulas for interest to solve problems involving debt consolidation and rescheduling of debt.
6. Apply formulas for interest to solve problems involving government and corporate bonds.
7. Describe the various types of mortgage loans, construct amortization schedules, and calculate the various components of mortgage payments.
8. Apply amortization tables to calculate the various components of mortgage payments and refinancing options.
9. Master the use of financial calculators to formulate, analyze, and interpret mathematical models in business.
10. Describe the derivative of a function and apply rules for differentiation.
11. Apply derivatives in curve sketching with applications to business, as in solving for marginal revenue/cost, marginal tax rate, minimum cost, and maximum profit.
12. Describe the indefinite integral of a function, and apply rules for integration.

BUSINESS LAW

BLAW 200 Legal Environment of Business (3)
3 hours lecture per week

Recommended Preparation: A grade of "C" or higher in ENG 100 or a grade of "C" or higher in ESL 100.

BLAW 200 is an introduction to the legal environment of business with particular emphasis on sources of law and torts, contracts, agency, partnership, corporations, Uniform Commercial Code, government regulations, and ethics.

Upon successful completion of BLAW 200, the student should be able to:
1. Summarize the American system of justice and jurisprudence, and its evolution, and effectively use its concepts, terminology, and procedures.
2. Explain how laws are made, implemented, interpreted and enforced by the three branches of government at the national, state and local levels.
3. Examine, explain and apply basic principles of law, including contracts, torts, real and personal property, business organizations, agency, employment, products and consumer protection, environmental law, and anti-trust, etc.
4. Discuss how business and legal disputes arise and are avoided and/or resolved, including informal processes and alternative dispute resolution.
5. Participate in ethical decision-making, taking into account various legal, business and ethical approaches, philosophies and codes.