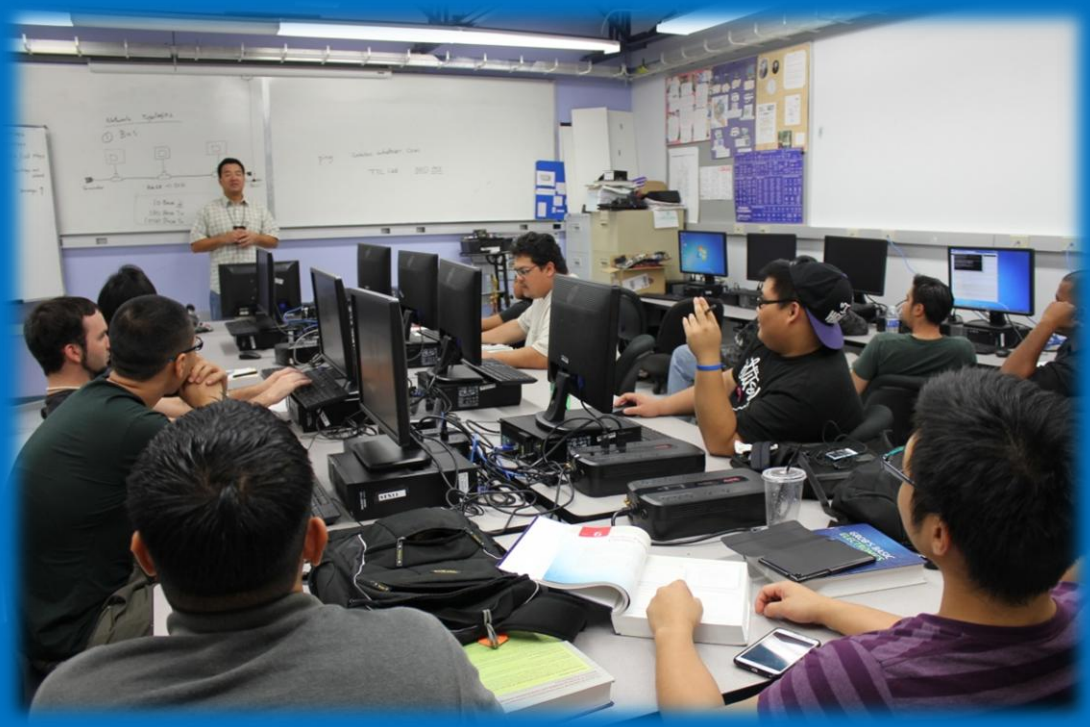
GCC

GUAM COMMUNITY COLLEGE

Kulehon Kumunidát Guáhan

Student Learning Outcomes (SLO's) & Curriculum Mapping Booklet



AY 2013-2015

Academic Year 2013-2015

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MISSION

The mission of Guam Community College is to be a leader in career and technical workforce development by providing the highest quality education and job training in Micronesia.

Sinangan Misión (Chamorro translation)
I misión i Kulehon Kumunidå't Guåhan, guiya i gé'hilo' i fina'che'cho' siha yan I kinahulo' i mamfáfa'che'cho' ya u na'guáguåha nu i manákhilo' yan manmaolek na tiningo' yan fina'nå'guen cho'cho' siha gi iya Maikronisiha.

Board of Trustees Policy 100 (Amended & Adopted: May 5, 2011 (with Chamorro translation); Re-examined & Adopted: February 9, 2011; New Adoption: March 11, 2009; Amended & Adopted September 5, 2008; Reexamined & Adopted: January 25, 2007; First Adopted: September 19, 1990)

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FOREWORD

Guam Community College continues to maintain a 'sustainable continuous quality improvement' operating level, as noted in the evaluation report written by the visiting team for the Accrediting Commission for Community and Junior Colleges. The inception of the firs SLO Booklet was piloted in 2008. The first official SLO Booklet was published in 2009, with inconsistency in course and program curricula and course syllabi identified and refined in the 2010 SLO Handbook. Further improvements were made in the articulation of student learning outcomes sin the 2011 published edition. The fourth booklet published in 2012 revealed the College's steadfast commitment to student learning outcomes. This 2013 SLO booklet will continue to uphold GCC's dedication to provide the highest quality education in Micronesia.

The Accreditation visiting team wrote: "The team commends the College for establishing and clearly communicating to students and the community student learning outcome for 100 percent of its courses and programs (17 certificates, 20 associate degrees, and over 350 courses)". The team found that the College's two-year cycle for the assessment of student learning outcomes at the course, program, certificate, and degree levels is on-going, promotes widespread dialog on the results of the assessments, and uses assessment result to improve programs and institutional processes.

The SLO & Curriculum Mapping Booklet is not only a collection of the different learning outcomes of GCC's many successful programs and courses; it is an embodiment that signifies the vigilance and perseverance put forth by faculty. It is a representation of GCC's commitment to providing the highest quality education and job training in Micronesia.

Thank you, fallout for your hard work and continuous dedication to ensure GCC remains the leader in career and technical workforce development in Micronesia.

Virginia C. Tudela, Ph.D.
Dean
School of Technology & Student Services

Juan P. Flores, Ph.D.
Dean
School of Trades & Professional Service

Michael L. Chan, Ed.D.
Associate Dean
School of Technology & Student Services

AC - ACCOUNTING

AC100 FUNDAMENTALS OF BOOKKEEPING AND ACCOUNTING (3)

This course covers accounting principles to include interpreting source documents, analyzing business transactions; recording entries in a general journal; posting to the ledger, preparing the worksheet with adjustments; journalizing, adjusting and closing entries; preparing financial statements, and the post-closing trial balance. Formerly AC115. Course offering: As needed. Prerequisite: Must place into MA095 or higher

Student Learning Outcomes (SLOs):

Upon successful completion of this course, students will be able to:

1. Apply accounting procedures to properly record financial information about a business.
2. Apply generally accepted accounting theory and principles to perform all the steps of the accounting cycle for a service and retail type business.
3. Perform internal control procedures to protect and properly manage cash and other business assets.
4. Perform accounting procedures to journalize and post business transactions using special journals for a merchandise business.

AC110 PAYROLL ACCOUNTING (3)

This course covers the most current methods and procedures of calculating payroll and payroll taxes. It includes the latest developments in payroll tax law, covering information on wages, payroll operations, employment practices, and voluntary employee deductions; differences between the USA and the Territory of Guam payroll accounting systems are examined. Course offering: Spring only. Prerequisites: AC100, CS151, MA108

Student Learning Outcomes (SLOs):

Upon successful completion of this course, students will be able to:

1. Develop an understanding of the personnel and payroll records that provide the information required under the numerous laws affecting the operations of a payroll system.
2. Calculate wages, employees earning records, and a payroll register applying all payroll laws that are applicable and current.
3. Perform all aspects of payroll operations, including payroll tax returns.
4. Process a four-month payroll period for a business using two methods: manual and computerized.

AC150 FEDERAL INCOME TAX I (3)

A study of the basic forms and structures of federal taxation, particularly aspects which affect individual taxpayers, to include: components of tax formula, the use of the standard deduction. Personal exemption qualifications, filing systems, tax tables, exclusions from income, various categories of deductions, investment losses and passive activity losses, net operating losses, and tax credits. Course offering: As needed

Student Learning Outcomes (SLOs):

Upon successful completion of this course, students will be able to:

1. Discuss what the federal income tax is and distinguish it from other types of federal taxes.
2. Distinguish between the regular income tax and the alternative minimum tax.
3. Discuss how Congress derived its authority to impose the federal income tax.
4. List the objectives of the federal income tax laws.

AC210 INTRODUCTION TO FINANCIAL MANAGEMENT (3)

This course covers the basic fundamentals of financial management. Major topics include financial statement analysis, forecasting, markets, risk and rate of return, time value of money, valuation of stock and bonds, cost of capital, capital structure, dividend policy, and financial planning, and working capital management. Course offering: Spring only. Prerequisite: AC211

Student Learning Outcomes (SLOs):

Upon successful completion of this course, students will be able to:

1. Interpret and apply financial ratios to financial statements to evaluate future prospects of the business.
2. Define markets and determine the market interest rate using various universal tools.
3. Compare risk with the rate of return in a single investment and a portfolio investment.
4. Perform valuations of stocks and bonds.
5. Calculate present value and future value of a cash flow problem.
6. Explain the concept of working capital and its components in order to manage cash conversion cycles.

AC211 ACCOUNTING PRINCIPLES I (4)

This course prepares the student for entry-level accounting jobs, such as accounting clerk and bank teller. Students will interpret and apply accounting principles and concepts to record and report accounting data for sole proprietorship and merchandise business; apply internal control procedures, such as special journals and subsidiary ledgers; apply inventory costing methods; processing account issues for receivables, bank reconciliation and petty cash; calculate depreciation schedules for assets; and record data for intangible assets. Formerly AC101. Course offering: As needed. Prerequisites: Placement into either MA108 or a higher level math class.

Student Learning Outcomes (SLOs):

Upon successful completion of this course, students will be able to:

1. Interpret and apply accounting principles and concepts to record and report business financial data for effective management decision making.
2. Demonstrate the proper procedures to perform all the steps of the accounting cycle for a merchandise business.
3. Perform manual and computerized accounting tasks that use subsidiary ledgers and special journals.
4. Perform bank reconciliations for business records and maintain petty cash systems.
5. Demonstrate the ability to calculate inventory data using various types of inventory costing methods.

AC212 ACCOUNTING PRINCIPLES II (4)

Accounting theory and principles are discussed relating to corporations, manufacturing, budgeting and cost analysis. Specific topics include current and contingent liabilities, accounting for corporations, accounting for corporate income taxes, investments in bonds, accounting for bonds payable, the Statement of Cash Flows, Financial Statement analysis, job order and process costing systems. Formerly AC102 and AC103 Course offering: As needed. Prerequisites: AC110, AC211, CS151

Student Learning Outcomes (SLOs):

Upon successful completion of this course, students will be able to:

1. Analyze and record journal entries for corporations dealing with stockholder's equity of a corporation.
2. Demonstrate proficiency to prepare corporation financial statements including the statement of cash flows.
3. Contrast the accounting systems used by manufacturing businesses: job order and process costing.
4. Prepare the basic income statement budgets for a manufacturing business.
5. Explain and illustrate how standards are used in budgeting.

AC225 HOSPITALITY INDUSTRY ACCOUNTING (3)

This course presents the fundamentals of financial accounting through hospitality industry simulation-problems and experiences. Accounting topics include procedures for merchandise and supplies inventories, fixed assets and depreciation methods, current liabilities and payroll, internal controls of cash, receivables and payables. Major elements of financial statements for the hospitality industry are emphasized. Formerly HS244. Course offering: Fall only. Prerequisite: AC211 and/or concurrently with AC212

Student Learning Outcomes (SLOs):

Upon successful completion of this course, students will be able to:

1. Develop mastery-level skills in the fundamentals of financial accounting for the global hospitality industry.
2. Obtain the American Hotel & Motel Association certificate upon completion of all course requirements and successfully passing the national certification examination.
3. Perform analysis and interpretation of financial statements of the hospitality industry.
4. Discuss computerized accounting systems prevalent in hospitality businesses that use special journals and subsidiary ledgers.

AC232 ACCOUNTING ON THE COMPUTER USING PEACHTREE (3)

A computerized accounting course that teaches students how to use the basic features of Peachtree Accounting software (current version) for service merchandising, and nonprofit businesses. This is the capstone course for the Accounting Associate Degree and students should schedule this course during Spring of their last semester. Three simulation projects enable students to incorporate accounting knowledge and computer skills to create three different types of businesses. Course offering: As needed. Prerequisites: AC110, AC150, AC212

Student Learning Outcomes (SLOs):

Upon successful completion of this course, students will be able to:

1. Demonstrate computer-based skills using a current software version of Peachtree to perform necessary procedures at each step of the accounting cycle for service, nonprofit, and manufacturing businesses.
2. Apply appropriate procedures to analyze problems and make corrections to errors discovered in a company's books using Peachtree.

3. Review basic accounting principles and theory during the process of recording business transactions using the accounting software Peachtree.
4. Use appropriate accounting terminology and language to evaluate financial statements and other accounting documents generated by Peachtree.

AC233 ACCOUNTING ON THE COMPUTER USING QUICKBOOKS (3)

Students will apply accumulated accounting knowledge and skills from accounting fields such as payroll, federal tax, inventory, merchandising, accounts receivable, accounts payable, and cash management using an accounting software called QuickBooks. Students will develop extensive skills about the features of QuickBooks. Course offering: Fall only. Prerequisites: AC110, AC150, AC212

Student Learning Outcomes (SLOs):

Upon successful completion of this course, students will be able to:

1. Demonstrate computer-based skills using a current software version of QuickBooks to perform necessary procedures at each step of the accounting cycle for service, nonprofit, and manufacturing businesses.
2. Apply appropriate procedures to analyze problems and make corrections to errors discovered in a company's books using QuickBooks.
3. Review basic accounting principles and theory during the process of recording business transactions using the accounting software QuickBooks.
4. Use appropriate accounting terminology and language to evaluate financial statements and other accounting documents generated by QuickBooks.

AC240 CERTIFIED BOOKKEEPER REVIEW (3)

A detailed study and review structured to prepare students to pass the national test for Certified Bookkeeper (CB) given by the American Institute of Professional Bookkeepers (AIPB). This course covers specific topics such as adjusting entries, reconciliation and errors, payroll, depreciation, and inventory. A certificate is awarded upon the successful completion of the examinations and 3,000 hours of accounting-related work experience. Course offering: As needed. Prerequisites: AC211, AC110, AC150

Student Learning Outcomes (SLOs):

Upon successful completion of this course, students will be able to:

1. Develop mastery-level skills in selected areas of accounting such as Payroll, Depreciation, Adjusting Entries, Error Corrections, Inventory, Internal Control and Fraud Prevention, to prepare for passing the AIPB national certification exam.
2. Obtain their CB certificate upon full completion of all AIPB requirements.
3. Discuss the universal Code of Ethics for bookkeepers and sign a code of ethics declaration.

AC250 FEDERAL INCOME TAX II (3)

This course is the second of two courses on Federal Taxation structure. Emphasis is given to the unique factors involved in taxation of individuals, and other U.S. Federal tax returns such as partnership and corporation. It includes the latest developments in federal tax laws, covering information on property transactions, retirement plans, partnerships/S corporation basis and loss limitations. Course offering: Spring only. Prerequisite: AC150

Student Learning Outcomes (SLOs):

Upon successful completion of this course, students will be able to:

1. Discuss the formation and operation of corporations related to corporate taxation.
2. Discuss corporate taxation regulations related to corporate distributions to shareholders.
3. Discuss taxation issues for stock redemptions treated as a sale or exchange or as a dividend.
4. Determine the tax treatment of the liquidating corporation including the recognition of gain or loss.
5. Identify the characteristics of the seven types of reorganization of a corporation.
6. Explore the nature of the accumulated earnings tax penalty imposed on a corporation that fails to distribute its earnings.

AC298 Cooperative Education for Accounting (1-6)

The cooperative Education program provides an opportunity to qualified associate degree seeking students to receive credit and non-paid work experience related to Accounting. Course offering: As needed. Prerequisite: AC232, AC233

Student Learning Outcomes (SLOs):

Upon successful completion of this course, students will be able to:

1. Reinforce and develop the knowledge of accounting theory and accounting principles applied to the tasks of an accounting job.

2. Train with accounting professionals that provided work experience in the accounting process for financial recordkeeping.
3. Apply the practice of professional accounting ethics related to the responsibilities of an accounting job.
4. Demonstrate effective interpersonal skills with co-workers according to the expectations of an accounting supervisor during the duration of a job assignment.
5. Demonstrate organizational skills needed to work within an accounting department.

AE - ARCHITECTURAL ENGINEERING

AE103 BASIC BLUEPRINT READING (3)

This course introduces students to basic principles of blueprint reading and shop sketching, including a study of drafting principles and concepts and all the related technical information necessary to interpret a drawing. Trade terminology and shop and field practices are defined and applied in operational notes, which appear on drawings. Course offering: As needed

Student Learning Outcomes (SLOs):

Upon successful completion of this course, students will be able to:

1. Identify basic specifications and codes of various trades related industries.
2. Recognize and sketch basic lines.
3. Apply symbols, notes, and conventions to the creation of drawings and sketches.

AE121 TECHNICAL ENGINEERING DRAWING I (3)

A study of the use of drawing instruments and techniques for mechanical, civil and architectural drawings involving freehand sketches, lettering, orthographic views and pictorial drawings. Skill development will focus on the use of drawing instruments to redraw given drawings calling for accurate measurements with detailed instructions on how to do it. Course offering: As needed

Student Learning Outcomes (SLOs):

Upon successful completion of this course, students will be able to:

1. Demonstrate proper use of drafting instruments to draw existing plans.
2. Accurately measure existing drawings.
3. Describe basic components of a blueprint.

AE122 TECHNICAL ENGINEERING DRAWING II (3)

A study of how to prepare partial working drawings of simple building structures, floor plan, front and rear elevations, left and right elevations, transverse and longitudinal sections, cabinet, closet and bar details, plumbing, electrical, site and plot plans including how to prepare topographic maps. Course offering: As needed. Prerequisite: AE121

Student Learning Outcomes (SLOs):

Upon successful completion of this course, students will be able to:

1. Prepare a partial working drawing.
2. Accurately depict different elevation views.
3. Draw plumbing components found in a typical house plan.

AE138 BUILDING CODES, SPECIFICATIONS & CONSTRUCTION MANAGEMENT (3)

An interpretation and study of local and national building codes and standards, construction documents and office organization. This course will be of value to anyone who plans to enter, or is presently working in the field of construction. Course offering: As needed. Prerequisite: EN100

Student Learning Outcomes (SLOs):

Upon successful completion of this course, students will be able to:

1. Explain local and national building codes and standards.
2. Identify the process for acquiring a building permit.
3. Explain the various agencies' functions in the permitting process.

AE150 COMPUTER AIDED DESIGN & DRAFTING (CADD) I (3)

An introduction to computer aided design and drafting software as a drafting/design tool. This course is designed to introduce students to the use of computers in producing line drawings. Topics include equipment components, terminology, drawing with the computer, storing and retrieving drawings, and printing and plotting. This hands-on course uses the design computer-aided drafting and design software application. Course offering: As needed. Prerequisites: AE121, CS101

Student Learning Outcomes (SLOs):

Upon successful completion of this course, students will be able to:

1. Produce line drawings using computer technology.
2. Demonstrate and explain basic equipment components and terminology used in the Computer Aided Design & Drafting (CADD) career.
3. Demonstrate basic proficiency using design software.

AE160 COMPUTER AIDED DESIGN & DRAFTING (CADD) II (4)

This course builds on the topics covered in AE150 and presents intermediate editing techniques. This course covers the fundamentals of how to utilize Computer Aided Design and Drafting (CADD) to create and manage a set of construction documents for a single building project. Students will gain knowledge and practical experience leading to entry level jobs by performing many of the duties of an architectural or engineering CADD operator. Course offering: As needed. Prerequisites: AE121, AE150, or consent of instructor

Student Learning Outcomes (SLOs):

Upon successful completion of this course, students will be able to:

1. Utilize a computer workstation to create a construction drawing set consisting of at least six sheets from a design.
2. Compile information about a building from architectural and engineering reference materials and produce an appropriate document that complies with building codes and save it in an electronic medium.
3. Demonstrate intermediate two and three dimensional editing techniques.
4. Demonstrate how to prepare two and three dimensional drawings for architecture, interior design, mechanical and structural engineering, and other design fields.

AE216 DESCRIPTIVE GEOMETRY (3)

This course covers the analysis and solution of three-dimensional problems through application of the principles of multiview projection. Topics include spatial relationships typical of engineering problems, auxiliary views, revolutions, curved lines and surfaces, intersections of surfaces and shades and shadows. This course is recommended for pre-engineering students and drafting majors. Course offering: As needed. Prerequisite: MA161B

Student Learning Outcomes (SLOs):

Upon successful completion of this course, students will be able to:

1. Apply graphical methods to solve three-dimensional space problems.
2. Set up projection planes to satisfy specific requirements.
3. Use computer drafting software such as AutoCAD® to create a three-dimensional object with integration of geometric shapes and save to an electronic medium.

ASL - AMERICAN SIGN LANGUAGE

ASL100 AMERICAN SIGN LANGUAGE I (4)

The purpose of this course is to provide students with basic conversational skills in American Sign Language, to develop visual acuity, and to build comfort with the use of body/facial expressions to convey information. This course is one in a series of courses designed to allow an individual to develop ASL conversational skills and is a prerequisite for ASL110. Formerly IN110. Course offering: As needed

Student Learning Outcomes (SLOs):

Upon successful completion of this course, students will be able to:

1. Demonstrate basic expressive and receptive conversational skills in American Sign Language (ASL) that includes a core vocabulary, finger spelling the alphabet and numbers.
2. Demonstrate proficiency in visual acuity using body/facial expressions, gestures and other nonverbal skills to convey and respond to information received.
3. Demonstrate acceptable behavior with the Deaf Community.

ASL110 AMERICAN SIGN LANGUAGE II (4)

This course is a continuation of American Sign Language I. The course objective is to continue to develop basic syntactic knowledge of American Sign Language, vocabulary, fingespelling and conversational skills. Aspects of the deaf community and culture are also incorporated. Course offering: As needed. Prerequisite: ASL100

Student Learning Outcomes (SLOs):

Upon successful completion of this course, students will be able to:

1. Demonstrate basic understanding of American Sign Language (ASL) that includes manually-coded English and finger spelling.
2. Demonstrate expanded vocabulary and conversational range such as talking about other people and activities, giving directions, describing people, and making requests.

ASL120 AMERICAN SIGN LANGUAGE III (4)

The course provides advanced conversational skills in American Sign Language with an emphasis on expressive and receptive skills development. Students will further their understanding of American Sign Language syntax, vocabulary, and signing skills. Deaf culture will be further explored. Course offering: As needed. Prerequisite: ASL110

Student Learning Outcomes (SLOs):

Upon successful completion of this course, students will be able to:

1. Demonstrate basic understanding of American Sign Language (ASL) that includes manually coded English and finger spelling.
2. Demonstrate expanded vocabulary and conversational range such as talking about other people and activities, giving directions, describing people, and making requests.
3. Proficiently interact and communicate with the deaf.

ASL130 AMERICAN SIGN LANGUAGE IV (4)

This is the fourth course in the American Sign Language sequence. This course continues to develop advanced competency and fluency in American Sign Language, grammar and syntax. Cultural features and variations in ASL are also addressed. Prerequisite: ASL 120

Student Learning Outcomes (SLOs):

Upon successful completion of this course, students will be able to:

1. Demonstrate critical thinking and appropriate ethical responses required by the Code of Professional Conduct for Interpreters.
2. Acquire knowledge and understanding of the language and culture of the Deaf community.
3. Demonstrate advanced communicative competence and fluency in the basic understanding of American Sign Language. (should be #3)

AST - AUTOMOTIVE SERVICE TECHNOLOGY

AST100 INTRODUCTION TO AUTOMOTIVE SERVICE (3)

This course comprehensively prepares students for study within specific areas of Automobile Service Technology. Topics include safety, proper use of shop tools and equipment, checking and adjusting fluid and pressure levels, checking for wear of mechanical and hydraulic components, replacing expendable fluids and parts, performing preventive maintenance, replacing minor external mechanical, electrical and hydraulic components and basic diagnoses and troubleshooting of common automobile malfunctions. Formerly ME150 & ME150B. Course offering: As needed

Student Learning Outcomes (SLOs):

Upon successful completion of this course, students will be able to:

1. Demonstrate shop safety concepts and practices.
2. Depict good customer relations.
3. Identify basic hand tools and shop equipment and demonstrate proper use.
4. Explain the basic functions and perform elemental service procedures on the engine, electrical, and ignition systems.
5. Perform basic automotive measurements and compare results to specifications.

AST110 ENGINE REPAIR (3)

This course covers elements of engine repair including diagnoses, adjustments and repair of external engine accessory such as batteries and starting systems, fuel, air induction, ignition, lubrication, cooling, and exhaust systems, and repair of the valve train, cylinder heads, valve train synchronization, engine short blocks and complete engine assemblies. Formerly ME178A & ME178B. Course offering: Spring only. Prerequisite: AST100

Student Learning Outcomes (SLOs):

Upon successful completion of this course, students will be able to:

1. Explain the basic functioning of the engine mechanical system.
2. Identify and interpret engine mechanical concerns and determine necessary action.
3. Perform basic service and repair procedures on an engine.

4. Inspect cylinder head, water and oil passage condition, and identify wear patterns, determine necessary action.

AST120 AUTOMATIC TRANSMISSION AND TRANSAXLE (3)

This course covers all on-car diagnosing, adjusting, replacing, and repairing of both domestic and foreign automatic transmissions, as well as the process of rebuilding complete transmissions/transaxles. Formerly ME168A & ME168B. Course offering: As needed. Prerequisite: AST100

Student Learning Outcomes (SLOs):

Upon successful completion of this course, students will be able to:

1. Diagnose general transmission and transaxle faults.
2. Perform maintenance and adjustment procedures on transmission and transaxle.
3. Explain in-vehicle transmission repair procedures.
4. Demonstrate basic off-vehicle transmission repair procedures.

AST130 MANUAL DRIVE TRAIN AND AXLES (3)

This course covers diagnoses, performance checks, repair of air conditioning compressors, replacement of heating and air conditioning components, repairs and/or replacement of liquid cooling system components, and servicing of ventilation systems. Prerequisite: AST100. Formerly ME167. Course offering: Fall only. Prerequisite: AST100

Student Learning Outcomes (SLOs):

Upon successful completion of this course, students will be able to:

1. Diagnose general drive train faults.
2. Diagnose clutch related problems and perform needed repairs.
3. Explain elemental manual transmission/transaxle, and differential repair procedures.
4. Depict how to diagnose and repair four-wheel drive and all-wheel drive systems.

AST140 SUSPENSION AND STEERING (3)

This course covers wheel alignment and correction, wheels and tires, active and passive suspension systems, steering and steering assist, progressive steering systems, and replacement of worn or damaged parts. Formerly ME166. Course offering: Spring only. Prerequisite: AST100

Student Learning Outcomes (SLOs):

Upon successful completion of this course, students will be able to:

1. Identify and interpret short and long arm and strut suspension faults and determine necessary action.
2. Perform preventive maintenance procedures on power steering system.
3. Diagnose tire related concerns and determine necessary action.
4. Service and adjust parallelogram, and rack and pinion steering systems.

AST150 BRAKES (3)

This course covers combination disc/drum brake systems, friction components, power assist systems, anti-lock brake systems, hydraulic systems, parking brake systems and traction control systems. Formerly ME165. Course offering: Fall only. Prerequisite: AST100

Student Learning Outcomes (SLOs):

Upon successful completion of this course, students will be able to:

1. Identify general brake-related concerns and recommend actions to be taken.
2. Diagnose hydraulic related faults in a vehicle's brake system.
3. Inspect the mechanical components of a vehicle's brake system and determine necessary action.
4. Ascertain the cause/s of abnormal brake system noises, poor performance and excessive wheel shimmy and vibration.

AST160 ELECTRICAL/ELECTRONIC SYSTEMS (3)

This course covers diagnoses, repair and replacement of components involved in vehicular starting, charging, internal illumination, external illumination, instrumentation, horns, wiper systems, supplemental inflatable restraints (air bags) and accessories. Emphasis is given to interpretation and utilization of electrical diagrams. Formerly ME175. Course offering: Fall only. Prerequisite: AST100

Student Learning Outcomes (SLOs):

Upon successful completion of this course, students will be able to:

1. Perform general electrical system diagnosis.
2. Service battery and starting system.
3. Diagnose and repair lighting system.
4. Determine cause of inoperative electronic gauges and accessories, determine required action.

AST170 HEATING AND AIR CONDITIONING (3)

This course covers diagnoses, performance checks, repair of air conditioning compressors, replacement of heating and air conditioning components, repairs and/or replacement of liquid cooling system components, and servicing of ventilation systems. Formerly ME176. Course offering: Spring only. Prerequisite: AST100

Student Learning Outcomes (SLOs):

Upon successful completion of this course, students will be able to:

1. Conduct performance check on A/C system and determine concern.
2. Recover and recycle refrigerant and charge A/C system.
3. Service A/C system components.
4. Perform diagnostics on heating, ventilation, and engine cooling system and perform needed repairs.
5. Diagnose and repair A/C and heating related controls.

AST180A ENGINE PERFORMANCE I (TUNE-UP, NO FUEL/EMISSION) (3)

This course involves but is not limited to diagnoses, adjustments, repair and replacement of components in the ignition, charging, starting, engine cooling and the valve train. Formerly ME177A. Course offering: Spring only. Prerequisite: AST100

Student Learning Outcomes (SLOs):

Upon successful completion of this course, students will be able to:

1. Perform general engine diagnosis.
2. Diagnose and repair computerized engine controls.
3. Ascertain fault causes in ignition system and perform needed repairs.
4. Perform engine related maintenance and service procedures.

AST180B ENGINE PERFORMANCE II (FUELS & EMISSIONS SYSTEMS) (3)

This second engine performance course involves diagnoses, adjustments, replacement of worn, damaged or inoperative components in the air induction, fuel delivery, electronic engine control and emission control systems. Formerly ME177B. Course offering: Fall only. Prerequisites: AST100, AST180A

Student Learning Outcomes (SLOs):

Upon successful completion of this course, students will be able to:

1. Perform intermediate level engine diagnostics.
2. Diagnose and repair faults in the fuel, air induction, and exhaust system.
3. Determine fault causes in the emission control system and perform needed repairs.

AST210 THEORY/PRACTICUM: ENGINE REPAIR (3)

This theory/practicum course builds on AST110, offering students a more in-depth conceptual understanding of engine repair and providing them with the opportunity to apply this knowledge in continually developing their automotive skills. Course offering: Fall only. Prerequisites: AST100, AST110

Student Learning Outcomes (SLOs):

Upon successful completion of this course, students will be able to:

1. Remove and reinstall engine assembly with minimal supervision.
2. Repair problems related to the cylinder head and valve train.
3. Diagnose and repair cylinder block related faults.
4. Service cooling and lubrication system.

AST220 THEORY/PRACTICUM: AUTOMOTIVE TRANSMISSION AND TRANSAXLE (3)

This theory/practicum course builds on AST120, offering students a more in-depth conceptual understanding of automatic transmissions and transaxles, and providing them with the opportunity to apply this knowledge in continually developing their automotive skills. Course offering: Fall only. Prerequisites: AST100, AST120

Student Learning Outcomes (SLOs):

Upon successful completion of this course, students will be able to:

1. Perform general transmission and transaxle diagnostics with minimal supervision.
2. Demonstrate advance in-vehicle transmission and transaxle service and repairs.
3. Remove, disassemble, repair, and reinstall transmission and transaxle.

AST230 THEORY/PRACTICUM: MANUAL DRIVE TRAIN AND AXLES (2)

This theory/practicum course builds on AST130, offering students a more in-depth conceptual understanding of annual drive trains and axles, and providing them with the opportunity to apply this knowledge in continually developing their automotive skills. Course offering: Spring only. Prerequisites: AST100, AST130

Student Learning Outcomes (SLOs):

Upon successful completion of this course, students will be able to:

1. Perform general transmission and transaxle diagnostics with minimal supervision.
2. Replace clutch pack components.
3. Remove, disassemble, repair, and reinstall transmission, transaxle, and differential assemblies.
4. Service and Repair drive shafts, half shafts, and constant velocity joints.

AST240 THEORY/PRACTICUM: SUSPENSION AND STEERING (2)

This theory/practicum course builds on AST140, offering students a more in-depth conceptual understanding of suspension and steering, and providing them with the opportunity to apply this knowledge in continually developing their automotive skills. Course offering: Fall only. Prerequisites: AST100, AST140

Student Learning Outcomes (SLOs):

Upon successful completion of this course, students will be able to:

1. Perform general suspension and steering systems diagnostics.
2. Repair steering & suspension system faults.
3. Adjust wheel alignment angles.
4. Diagnose and repair wheel & tire failures.

AST250 THEORY/PRACTICUM: BRAKES (2)

This theory/practicum course builds on AST150, offering students a more in-depth conceptual understanding of brakes, and providing them with the opportunity to apply this knowledge in continually developing their automotive skills. Course offering: Spring only. Prerequisites: AST100, AST150

Student Learning Outcomes (SLOs):

Upon successful completion of this course, students will be able to:

1. Diagnose general brake system malfunctions.
2. Repair the hydraulic system.
3. Ascertain and remedy drum brake system failures.
4. Diagnose and repair disc brake system failures.
5. Diagnose and repair antilock brake and traction control systems.

AST260 THEORY/PRACTICUM: ELECTRICAL/ELECTRONIC SYSTEMS (4)

This theory/practicum course builds on AST160, offering students a more in-depth conceptual understanding of electrical / electronic systems, and providing them with the opportunity to apply this knowledge in continually developing their automotive skills. Course offering: Spring only. Prerequisites: AST100, AST160

Student Learning Outcomes (SLOs):

Upon successful completion of this course, students will be able to:

1. Perform advance body electrical system diagnostics.
2. Test and service battery.
3. Diagnose and repair faults in the charging and starting system.

AST270 THEORY/PRACTICUM: HEATING AND AIR CONDITIONING (2)

This theory/practicum course builds on AST170, offering students a more in-depth conceptual understanding of heating and air conditioning systems, and providing them with the opportunity to apply this knowledge in continually developing their automotive skills. Course offering: Fall only. Prerequisites: AST100, AST170

Student Learning Outcomes (SLOs):

Upon successful completion of this course, students will be able to:

1. Perform advance diagnostics on air conditioning and heating systems.

2. Replace air conditioning and heating system components with minimal supervision.
3. Diagnose and repair operating and control system.

AST280 THEORY/PRACTICUM: ENGINE PERFORMANCE (5)

This theory/practicum course builds on AST180A and AST180B, offering students a more in-depth conceptual understanding of engine performance, and providing them with the opportunity to apply this knowledge in continually developing their automotive skills. Course offering: Spring only. Prerequisites: AST100, AST180A, AST180B

Student Learning Outcomes (SLOs):

Upon successful completion of this course, students will be able to:

1. Perform advance engine performance diagnostics.
2. Locate faults in the computerized control system with minimal supervision.
3. Diagnose and repair ignition, fuel, air induction, and exhaust related problems with minimal supervision.

CD - EARLY CHILDHOOD DEVELOPMENT

CD110 EARLY CHILDHOOD EDUCATION ORIENTATION (3)

The course provides an overview of entry-level knowledge and skills, including terminology and aspects, in the early childhood education field. The course also covers careers, employment skills and opportunities, and educational requirements and needs of those entering the early childhood education field. Course offering: As needed

Student Learning Outcomes (SLOs):

Upon successful completion of this course, students will be able to:

1. Demonstrate basic knowledge of all developmental domains related to childhood.
2. Demonstrate basic knowledge and skills needed to create a developmentally appropriate learning environment for young children.
3. Explore various careers in the early childhood education field and determine related future goals.

CD140 ENVIRONMENTS FOR YOUNG CHILDREN (3)

This course provides students with strategies in promoting the health, safety and nutrition of young children in the childcare settings. This includes safety and health assessments, taking care of ill children, meal planning, detecting child abuse and neglect, working with families, and planning activities for young children that teach health, safety and nutrition. Course offering: Spring only

Student Learning Outcomes (SLOs):

Upon successful completion of this course, students will be able to:

1. Demonstrate skills needed to successfully design a safe environment for young children.
2. Demonstrate strategies for the promotion of positive health practices in the early childhood environment.

CD180 LANGUAGE ARTS IN EARLY CHILDHOOD (3)

Students will develop knowledge and skills of language development in young children, including oral and written language. Emphasis is placed on planning and implementation of activities which enhance and develop language and literacy skills. In addition, students will develop resources and materials that are appropriate to teach language arts to young children. Course offering: Fall only

Student Learning Outcomes (SLOs):

Upon successful completion of this course, students will be able to:

1. Demonstrate knowledge in the language development domains as it relates to young children.
2. Create activities that build literacy skills.
3. Plan and implement a lesson plan for young children which develop and enhance language skills, and promote literacy

CD221 CHILD GROWTH & DEVELOPMENT (3)

This course provides an overview of the interrelationship between physical, emotional, intellectual, language and social growth in young children from conception through the primary school years, including the effects of heredity and environment on the development of young children. The role of the family, culture, community and society and how they impact on development is also explored. Course offering: Fall & Spring only

Student Learning Outcomes (SLOs):

Upon successful completion of this course, students will be able to:

1. Describe the social, physical and cognitive development of infants and toddlers.
2. Describe the social, physical and cognitive development of preschoolers.

CD240 COGNITIVE & CREATIVE DEVELOPMENT IN EARLY CHILDHOOD (3)

The cognitive and creative domains of development are covered in this course. Topics include science, mathematics, music, imagination, art, and pre-literacy. Developmentally appropriate activities that promote these concepts will be explored. Students will write and implement activities for infants, toddlers, preschool, and early school-age children. Course Offering: As Needed. Prerequisite: CD110 and ED220 or CD221

Student Learning Outcomes (SLOs):

Upon successful completion of this course, students will be able to:

1. Demonstrate the ability to incorporate creativity in all content areas of a developmentally appropriate early childhood learning environment.
2. Plan, write, and implement creative lessons and activities for young children that focus on math, science, art, imagination, and pre-literacy.
3. Demonstrate knowledge of current practices and methods for teaching mathematics, art, and science.

CD260 SOCIAL & EMOTIONAL DEVELOPMENT (3)

This course teaches knowledge and skills needed to promote social and emotional development in young children and use positive guidance strategies to handle inappropriate behavior. Temperament and child rearing issues such as feeding, potty training, and discipline are a few of the topics covered. This course also provides students with skills needed to plan appropriate activities that promote children's social and emotional development. Course offering: Fall & Spring only. Prerequisite: CD110 and CD221 or ED220

Student Learning Outcomes (SLOs):

Upon successful completion of this course, students will be able to:

1. Demonstrate knowledge in the domains of social and emotional development in young children.
2. Demonstrate skills in child management techniques that foster self-concept, positive self-esteem, and social behaviors.
3. Apply skills in using positive guidance in an early childhood setting.

CD285 CHILD CARE MANAGEMENT (3)

This course provides students with an overview of local requirements and national standards for starting and managing a profitable day care business on Guam. Topics covered include financing, marketing, staff supervision, staff training, writing policies, licensing requirements, and other operating procedures. Course offering: Spring only

Student Learning Outcomes (SLOs):

Upon successful completion of this course, students will be able to:

1. Demonstrate a familiarity of the laws and regulations controlling the child care industry.
2. Become familiar with several types of child care and early education programs, and develop an understanding of the administration of such programs.
3. Demonstrate the skills needed to staff and structure a quality child care center.

CD292 EARLY CHILDHOOD EDUCATION PRACTICUM (3)

This course provides students with the opportunity to implement their knowledge and skills while working with young children. A minimum of 135 hours of work is required, which may include observations, meetings with parents and professionals, and professional development activities. Course offering: As needed Prerequistie: Permission from an advisor or Education department chairperson.

Student Learning Outcomes (SLOs):

Upon successful completion of this course, students will be able to:

1. Demonstrate professionalism and ethical conduct within the educational field.
2. Demonstrate appropriate knowledge and disposition needed to effectively work with young children, including those from culturally and linguistically diverse backgrounds, and students with disabilities.
3. Develop and implement developmentally and age-appropriate teaching strategies needed to effectively work with young children in a classroom setting.

CE - CIVIL ENGINEERING TECHNOLOGY

CE121 PROPERTIES OF MATERIALS (3)

This course is a study of the mechanical, thermal, electrical, and chemical properties of metals, alloys, plastics, and other nonmetallic materials used in construction. Course offering: As needed

Student Learning Outcomes (SLOs):

Upon successful completion of this course, students will be able to:

1. List all the types of materials used in the building construction field.
2. Describe basic properties that differentiae the various types of building material.
3. Identify the correct application for any given material used in the construction industry.

CE211 PLANE SURVEYING I (3)

A beginning course in surveying techniques designed to give the student an understanding of the fundamentals of chaining, leveling, and proper use of the transit. Care and adjustment of instruments and office procedure are also considered. Provision is made by appropriate fieldwork for practical application of the techniques learned. Formerly CE241. Course offering: As needed. Prerequisite: MA122

Student Learning Outcomes (SLOs):

Upon successful completion of this course, students will be able to:

1. Describe the fundamentals of chaining, leveling, and use of transit as it relates to plane surveying.
2. Properly care, adjust, and use equipment in the plane surveying field.
3. Given a set of tasks, demonstrate proper use and application of surveying equipment and tools.

CE213 HYDRAULICS (3)

This course is designed to present the basic principles to fluid mechanics and the application of those principles to practical applied problems. Students will develop skills in the solution of problems involving fluid statics, flow of fluids in pipes, open channel flow, flow measurement, and forces developed by fluids in motion. The course will also educate students in water treatment practices and community water systems components. Course offering: As needed. Prerequisites: SI141 & MA161B

Student Learning Outcomes (SLOs):

Upon successful completion of this course, students will be able to:

1. Identify and describe basic fluid mechanics principles.
2. Analyze water treatment operations and generate solutions to problems.
3. Solve problems using appropriate tools including logic, models and applicable formulas.
4. Apply knowledge by functioning as an aide to a civil engineer or a sanitary engineer in the design of ducts, piping and channels for irrigation systems.

CE214 STRUCTURAL DESIGN (3)

This course will acquaint the student with all the facts of concrete and structural steel design. This includes having the student become familiar with various structural members of bridges and buildings and provisions of AISC (American Institute of Steel construction) and ACI (American Concrete Institute) publications in designing steel and concrete structural members. The first part of the course deals with structural steel design; the latter portion deals with concrete structural design. Various structural members are addressed-first as to their functions and second as to types of loading. The publications and specifications of AISC are closely followed to include the use of tables and design aids. Course offering: As needed. Prerequisite: CE221

Student Learning Outcomes (SLOs):

Upon successful completion of this course, students will be able to:

1. Apply provisions of AISC and ACI publications in designing steel and concrete structural members.
2. Identify and make use of appropriate tables and design aids as required.
3. Apply knowledge by functioning as an aide to an architect or an engineer in the design of structural members.

CE215 CONSTRUCTION PROCEDURES (3)

A study of construction organization, building codes, foundations, construction materials, methods and techniques of cast-in-place reinforced concrete, precast and prestressed concrete, steel and masonry construction, wood and plastics, thermal and moisture protection and building equipment. Formerly CE151. Course offering: As needed

Student Learning Outcomes (SLOs):

Upon successful completion of this course, students will be able to:

1. Explain the difference between precast and post stress concrete.
2. Describe the process involving the construction of a building foundation.
3. Chronologically sequence the steps related to the construction process.

CE221 STRENGTH OF MATERIALS (3)

A study of the relationship between the stresses, strains, deformations, and loads applied to structural members. Axial, torsional, bending and combined stresses are discussed. Stability and the buckling of columns are introduced. Formerly CE212. Course offering: As needed. Prerequisite: CE210

Student Learning Outcomes (SLOs):

Upon successful completion of this course, students will be able to:

1. Describe the strengths and limitations of various types of building materials.
2. Discuss the testing process involved in determining stress, strains, deformations, and loads.
3. Explain typical applications for various types of construction materials.

CE222 PLANE SURVEYING II (3)

This course is a continuation of Plane Surveying I dealing with modern surveying including construction surveying and surveying for engineering design. The students are introduced to modern surveying technology including Global Positioning Systems (GPS) and Geographic Information Systems (GIS). Reconnaissance and field procedures and methods are discussed and the students will be divided into syrvey teams and given area assignments to perform survey fieldwork including topographic surveys for contour maps. The students are exposed to the prospects of employment as survey and civil engineering technicians. Course offering: As needed. Prerequistie: MA161A, CE211

Student Learning Outcomes (SLOs):

Upon successful completion of this course, students will be able to:

1. Successfully apply Mathematics including Algebra, Geometry, and Trigonometry as needed to solve surveying problems.
2. Demonstrate a variety of surveying techniques.
3. Apply appropriate skills using proper surveying instruments given various surveying tasks.
4. Solve surveying problems using technology such as calculators or computers, total stations, global positioning systems, or leveling instruments as appropriate.

CE224 HIGHWAYS (3)

This course introduces the different aspects of Traffic and Highway Engineering and the potential employment opportunities in the field. This course provides an overview of the relevance of roadway transportation in our society, introduces basic concepts of Highway Safety, Traffic Engineering, Level of Service, Intersection Design, Signal Timing, Transportation Planning, Forecasting Travel Demand, the Environmental Process in roadway projects, Geometric Design, Roadway Drainage, Roadway Geotechnical Engineering, and Pavement Design. Course offering: As needed. Prequisite(s): MA161A, CE211, CE213

Student Learning Outcomes (SLOs):

Upon successful completion of this course, students will be able to:

1. Describe current state of the art and science of Highway Engineering.
2. Apply the concept of Level of Service in highways and intersections.
3. Solve problems of Signal Timing.
4. Solve problems relating to basic roadway design.
5. Solve problems involving pavement design.

CE225 CONSTRUCTION PLANNING & ESTIMATING (3)

This course covers methods of estimating construction costs including excavation, highway, structures, piling and foundations; methods to determine qualities of materials, equipment, labor, and money required for construction projects; characteristics and capabilities of work equipment; methods of obtaining unit cost of in place construction; and field reporting practices and responsibilities of field inspection. Formerly CE252. Course offering: As needed. Prerequisites: AE121, CE215, MA161A

Student Learning Outcomes (SLOs):

Upon successful completion of this course, students will be able to:

1. Determine costs needed for various construction projects.
2. Estimate the amount of time required to complete a given construction project.
3. Apply critical thinking to determine labor hours versus equipment costs versus material costs.

CH - CHAMORRO LANGUAGE

CH110 CHAMORRO I (4)

This course is intended for individuals and students without any previous instruction in Chamorro language, focusing on basic conversation. Through interactive and multi-sensory teaching students are introduced to Chamorro phonology, syllabication, syntax and basic verbs. Students will learn to use Chamorro to initiate basic conversation, to communicate about them, and to negotiate basic exchanges in various social situations. This course is also designed to strengthen general knowledge about the peoples of the Marianas Islands where Chamorro is spoken. Course offering: Fall and Spring

Student Learning Outcomes (SLOs):

Upon successful completion of this course, students will be able to:

1. Initiate basic conversation in Chamorro that describe themselves, as well as basic conversations in various social situations.
2. Identify Chamorro phonology, syllabication, simple syntax and basic verbs.
3. Explain about the Marianas Islands regarding major cultural historical, political, and ecological events.

CH111 CHAMORRO II (4)

This course is a continuation of CH110. Students review, strengthen and expand basic structures and maintain proficiency in self-expression and social exchanges. Chamorro II will increase learner vocabulary and ability to perform a range of language functions including extending invitations, describing people, relating daily routine, asking for directions, and purchasing foods. Students will continue to develop appreciation for Chamorro culture and understanding of themselves as learners. Course offering: Fall and Spring. Prerequisite: CH110

Student Learning Outcomes (SLOs):

Upon successful completion of this course, students will be able to:

1. Develop and apply knowledge learned from CH110: Focusing on increasing basic proficiency in self-expression and social interaction using the Chamorro language.
2. Demonstrate increased vocabulary and aptitude to perform a range of tasks including extending invitations, describing people, describing daily routines, asking for directions, buying food and preparing authentic dishes.
3. Describe the Marianas Islands where Chamorro is spoken with regard to major cultural historical, political, and ecological events.

CI - CHINESE LANGUAGE

CI110 BEGINNING MANDARIN CHINESE I (4)

Students will learn basic Mandarin Chinese and will be able to use correct pronunciation, basic grammar, and sufficient vocabulary to engage in simple Chinese conversation. Course offering: As needed

Student Learning Outcomes (SLOs):

Upon successful completion of this course, students will be able to:

1. Ask simple questions, such as a person's name or the price of goods.
2. Count in Mandarin up to 100,000.
3. Order a meal in a Chinese restaurant using Mandarin Chinese.
4. Give simple directions using Mandarin Chinese.

CJ - CRIMINAL JUSTICE

CJ100 INTRODUCTION TO CRIMINAL JUSTICE (3)

This course offers an overview of the criminal justice system from its early historical development to its evolution within the United States. It also identifies the various agencies of justice-law enforcement, courts, corrections, and the juvenile justice system, their functions, expectations and interrelationships. Course offering: As needed

Student Learning Outcomes (SLOs):

Upon successful completion of this course, students will be able to:

1. Describe the history and development of the Criminal Justice System.
2. Identify the role of the Criminal Justice System in contemporary society.
3. Describe the functions of law enforcement, courts and corrections.
4. Describe the functions of probation, parole and the Juvenile Justice System.

CJ101 JUVENILE JUSTICE PROCESS (3)

This course is designed to introduce students to the history, philosophy, and application of the American Juvenile Justice System. Students will examine the juvenile justice responsibilities of police, the courts, and corrections with special emphasis on current practices of Juvenile Justice agencies in Guam. Course offering: As needed. Prerequisites: CJ100, EN100R, EN100W

Student Learning Outcomes (SLOs):

Upon successful completion of this course, students will be able to:

1. Describe the history and development of the Juvenile Justice System.
2. Identify the role of the Juvenile Justice System in contemporary society.
3. Define the concept of "parens patriae" and how the courts interpret its meaning.
4. Apply Title 19 Guam Code Annotated, Chapter 5, The Family Court Act to hypothetical situations.

CJ102 FIRST RESPONDER (3)

The First Responder course shall be at least 48 hours of classroom training. It aims to provide training in emergency medical care for those who are apt to be the first person responding to an accident. When the course is completed, the student will possess the same knowledge of patient care as the EMT, but not the same equipment skills. Can be repeated for credit. Course offering: As needed

Student Learning Outcomes (SLOs):

Upon successful completion of this course, students will be able to:

1. Diagnose emergency situations and provide appropriate emergency treatment.
2. Explain and discuss the role of a First Responder.
3. Demonstrate the First Responder skill set at an acceptable level as required by local regulations.
4. Demonstrate proficiency in BLS and CPR by passing the final skills practical exams and written exam required by the DOT to become a certified First Responder.

CJ104 DYNAMICS OF SUBSTANCE ABUSE (3)

This course is designed to introduce students to the problems of substance abuse in our society. Students will examine the history of dangerous drug use, basic pharmacology and classification, the social impact of drug abuse, physical and psychological consequences of drug use and dependence, various treatment modalities, legal implications of illicit drug use, and current law enforcement efforts. Course offering: As needed

Student Learning Outcomes (SLOs):

Upon successful completion of this course, students will be able to:

1. Articulate the medical, social and/or psychological aspects of addiction.
2. Demonstrate understanding of the different schedules under the Controlled Substances Act.
3. Identify and apply the detection, suppression, apprehension and prosecution procedures of substance abuse violations.

CJ107 INTRODUCTION TO CORRECTIONS (3)

An introduction and overview of fundamental processes, trends, and practices of juvenile and adult probation, institutional treatment, parole, and contemporary community-based correctional programs, both public and private will be covered in this course. Included is a review of the history and philosophy of corrections, with emphasis on the constitutional rights of offenders. Course offering: As needed

Student Learning Outcomes (SLOs):

Upon successful completion of this course, students will be able to:

1. Explain and analyze the correctional process, the correctional system, and the role of corrections in contemporary society.
2. Evaluate the history and evolution of the correctional process.
3. Identify the various correctional systems.
4. Examine the administration and trends in corrections.

CJ122/SI122 INTRODUCTION TO FORENSIC SCIENCE (4)

This course introduces students to the field of forensic science. Students will be able to identify the various principles, methods and procedures used in the preservation, collection, processing, and investigation of the crime scene as well as identify the various scientific techniques used to evaluate and analyze the evidence to resolve criminal matters. Students will also be familiar with some of the legal and ethical issues in forensic science. Course offering: As needed. Prerequisites: CJ100

Student Learning Outcomes (SLOs):

Upon successful completion of this course, students will be able to:

1. Describe the history and development of forensic science.
2. Identify the role of forensic science within the criminal justice system.

3. Identify the various analytical tools used to evaluate, process, investigate and adjudicate criminal cases.
4. Describe the various scientific techniques used to preserve, collect and analyze evidence.
5. Identify some of the legal and ethical issues in forensic science.

CJ126 OFFICER SURVIVAL (3)

This course provides law enforcement academy recruits with the knowledge and skills necessary to perform a variety of police tasks safely and effectively. This course is designed for career public safety officers and recruits. Instructor permission is required. Course offering: As needed

Student Learning Outcomes (SLOs):

Upon successful completion of this course, students will be able to:

1. Identify the safety techniques to use when approaching a potentially dangerous or life threatening situation..
2. List street survival skills an officer should acquire while on duty.
3. Demonstrate the ability to apply officer safety and street survival skills at an acceptable level in mock situations.

CJ126L OFFICER SURVIVAL LABORATORY (1)

This course provides students with the opportunity to practice and demonstrate "hands on" application of survival skills learned in CJ126. The laboratory may be conducted by interested law enforcement agencies at the conclusion of the Basic Law Enforcement Academy. This course is designed for career public safety officers and recruits. Instructor permission is required. Course offering: As needed. Prerequisite: CJ126

Student Learning Outcomes (SLOs):

Upon successful completion of this course, students will be able to:

1. Practice the various officer safety and street survival skills in mock situations.
2. Demonstrate proficiency in the use of the various officer safety and street survival skills at acceptable levels.

CJ132 EMERGENCY VEHICLE OPERATOR COURSE (EVOC) (3)

This course prepares police and fire recruits to safely operate emergency vehicles used by their respective agencies. Enrollment is limited to students registered in the Criminal Justice Academy or Fire Science Academy. Prerequisite: Permission by Criminal Justice Department. Course offering: As needed

Student Learning Outcomes (SLOs):

Upon successful completion of this course, students will be able to:

1. Identify safety skills during an emergency response.
2. Explain the proper operation of emergency vehicles.
3. Identify and properly deal with hazards involved with operating emergency vehicles.
4. Review the basics of defensive driving.
5. Understand the laws governing emergency vehicle operation.

CJ135 FIREARMS USE/SAFETY/CARE (3)

This course is designed to teach law enforcement and corrections students' proper use and care of firearms and chemical weapons. Emphasis is placed on safety, use of deadly force, marksmanship, judgmental shooting, and the care and cleaning of weapons. Prerequisite: Permission of CJ advisor. Firearms Identification Card required to take this course. Course offering: As needed

Student Learning Outcomes (SLOs):

Upon successful completion of this course, students will be able to:

1. Understand the physical attributes and mechanics of a firearm.
2. Apply knowledge of firearm safety.
3. Demonstrate knowledge of firearm related laws.
4. Practice safe use of firearms within a controlled environment.
5. Demonstrate use of firearms at prevailing acceptable and passing levels.

CJ140 DEFENSIVE TACTICS (3)

Stressing control through verbal persuasion is strongly preferred to physical force. This course is especially designed to control prisoners and maximize protection of the public, corrections officers, and inmates. Physical fitness is emphasized. This course is designed for career public safety officers and recruits. Instructor permission is required. Course offering: As needed

Student Learning Outcomes (SLOs):

Upon successful completion of this course, students will be able to:

1. Perform control and self defense tactics.
2. Demonstrate understanding of prevention, intervention and resolution techniques.
3. Demonstrate how to apply the use of force and the continuum of force.
4. Explain the legal issues involved in handling persons in custody, detainees, prisoners and inmates.

CJ145 PHYSICAL DEVELOPMENT (3)

This course is designed to develop a positive attitude toward physical fitness and to understand the relationship between physical fitness, productivity, health, and safety. This course is designed for career public safety officers and recruits. Instructor permission is required. Course offering: As needed

Student Learning Outcomes (SLOs):

Upon successful completion of this course, students will be able to:

1. Develop a positive attitude toward physical fitness.
2. Demonstrate understanding of the relationship between physical fitness, productivity, health, and safety.
3. Participate in physical development exercises.
4. Demonstrate the use of the various physical development exercises.

CJ148 TRAFFIC LAW ENFORCEMENT (3)

This course provides students with the knowledge and skills necessary to effectively deal with common vehicle violations and other traffic law enforcement duties. Students will be acquainted with the terminology, facts and concepts of vehicle violations to include an understanding of Title 16 Guam Code Annotated, The Vehicle Code of Guam. Additionally, students will be able to recognize what immediate steps are required at a traffic related scene necessary to protect life and property, how to give traffic citations, how to conduct traffic direction and accident investigation. Course offering: As needed. Prerequisites: CJ100, CJ150

Student Learning Outcomes (SLOs):

Upon successful completion of this course, students will be able to:

1. Explain the various traffic statutes and offenses.
2. Demonstrate knowledge and application of Title 16, Guam Code Annotated (Vehicle Code) to hypothetical situations.
3. Author a traffic accident report using the local traffic enforcement forms.

CJ150 CRIMINAL PROCEDURE (3)

This course provides an overview of the criminal justice process, the court system, and the U.S. Constitution with emphasis on the method of case interpretation of the U.S. Supreme Court and the Criminal Procedure Code of Guam. Course offering: As needed Prerequisite: CJ100, EN100W, EN100R

Student Learning Outcomes (SLOs):

Upon successful completion of this course, students will be able to:

1. Describe the history and development of the U.S. Court System, court cases and sources of rights.
2. Identify the procedural Criminal Law process.
3. Define how the courts interpret cases and the concept of stare decisis.
4. Understand and apply Title 8 Guam Code Annotated, Criminal Procedure Code, to hypothetical situations.

CJ155 SELF DEFENSE (3)

This course is a study of the basic principle and control techniques of weapons defense. This course is designed for career public safety officers and recruits. Instructor permission is required. Course offering: As needed

Student Learning Outcomes (SLOs):

Upon successful completion of this course, students will be able to:

1. Apply the basic self defense techniques through practical hands-on training.
2. Demonstrate evasive measures, personal security, and escape tactics.
3. Demonstrate proper use of defense techniques upon weapon attacks and defend against multiple assailants.

CJ160 MOTORCYCLE TRAINING (3)

This course is designed to provide police officers and police recruits with the skills and confidence necessary to operate police motorcycles on public streets and highways. Enrollment is limited to persons currently employed by Guam law enforcement agencies. This course is designed for career public safety officers and recruits. Instructor permission is required. Course offering: As needed

Student Learning Outcomes (SLOs):

Upon successful completion of this course, students will be able to:

1. Understand the basic motorcycle operation skills.
2. Demonstrate and differentiate between fundamental riding skills and street riding skills.
3. Determine the proper operation of a motorcycle under normal, special, adverse, hazardous and emergency riding conditions.

CJ200 CRIMINAL LAW (3)

This course is designed to introduce students to the history, philosophy, and application of criminal law. It provides students with an understanding of crime classifications, matters affecting criminal responsibility, criminal statutes including those of the Territory of Guam, and the role of criminal law in contemporary society. Course offering: As needed. Prerequisites: CJ100, EN100R, EN100W

Student Learning Outcomes (SLOs):

Upon successful completion of this course, students will be able to:

1. Describe the history and development of Criminal Law and the U.S. Court System.
2. Identify the substantive Criminal Law process.
3. Define the elements of a crime and probable cause.
4. Apply Title 9, the Criminal Code and 16, Vehicle Code3, Guam Code Annotated, to hypothetical situations.

CJ204 INTRODUCTION TO CRIMINOLOGY (3)

This course provides a fundamental understanding of criminal behavior, crime topologies, and the various theories of crime causation. Students will also explore the efforts of society to remedy, correct, and prevent crime and delinquency. Course offering: As needed. Prerequisites: CJ100, EN100R, EN100W, PY120, SO130

Student Learning Outcomes (SLOs):

Upon successful completion of this course, students will be able to:

1. Explain and analyze crime, criminology, and the criminal justice system.
2. Evaluate the history and evolution of criminology.
3. Identify the various theories of crime causation.
4. Identify the various crime typologies.

CJ205 POLICE REPORT WRITING (3)

Emphasis on principles and techniques of police report writing; methods of writing the basic who, what, when, where, why and how; and procedures of gathering information and developing various types of reports. With its focus on organization, sentence development and content, the course is designed to produce proficiency in police report writing and to reinforce and expand skills previously acquired. Course offering: As needed. Prerequisites: Permission from advisor and/or instructor is required, EN100R, EN100W

Student Learning Outcomes (SLOs):

Upon successful completion of this course, students will be able to:

1. Identify the substantive Criminal Law process.
2. Define the elements of a crime and determine if probable cause exists to charge a defendant with a criminal act.
3. Describe the various law enforcement forms and how to apply them to hypothetical situations.
4. Describe and apply Title 9, the Criminal Code and 16, Vehicle Code, Guam Code Annotated, to hypothetical.

CJ206 SOCIAL VALUES & THE CRIMINAL JUSTICE PROCESS (3)

This course is designed to provide an in-depth exploration consistent with the philosophy that social value and ethics are basic principles of a sound criminal justice process, and the roles of the administration of justice practitioners in relation to the public they serve. Through interaction and study, the student will become aware of the interrelations and role expectations of the human dimension required by practitioners in developing empathy, sensitivity and acceptable behavior. Instruction on the importance of open communication and accountability to those within and without the justice process is explored. Permission from instructor and/or advisor is required. Course offering: As needed. Prerequisite: SO130

Student Learning Outcomes (SLOs):

Upon successful completion of this course, students will be able to:

1. Explain and analyze community-based philosophy of policing.
2. Demonstrate understanding of the role of police and professionalism
3. Identify the various ethical issues of policing.
4. Identify how political, social, and economic issues relate to law enforcement.

CJ209 CONCEPT OF POLICE OPERATIONS (3)

This course provides students with operational knowledge needed to function successfully in a modern police agency. Concepts are particularly useful for first-line supervisors and managers. Topics include effective supervision, communication skills, problem solving, time management, motivation and morale, effective discipline, interpersonal conflict, stress management, productivity issues, and performance appraisals. Permission from instructor and/or advisor is required. Course offering: As needed. Prerequisites: CJ100, EN100R, EN100W

Student Learning Outcomes (SLOs):

Upon successful completion of this course, students will be able to:

1. Explain and evaluate the structure, organization, and management of police or other law enforcement agency.
2. Explain and analyze the various types of police operations and the methods and strategies used to implement policies and other executive decisions.
3. Demonstrate understanding of the interrelations, role, conflict and trends of police and law enforcement in modern society.

CJ225 CRIMINAL INVESTIGATION (3)

This course provides students with the knowledge and technical skills necessary to successfully investigate crime scenes, identify suspects, and successfully present evidence in court. Skills learned and practiced include processing crime scenes, preserving and evaluating evidence collected, interviewing witnesses and suspects, case preparation, and presenting evidence in court. Course offering: As needed. Prerequisites: CJ100, CJ205, EN100R, EN100W

Student Learning Outcomes (SLOs):

Upon successful completion of this course, students will be able to:

1. Apply the various methods used in investigating criminal cases to hypothetical situations.
2. Explain and evaluate the investigation, processing, and preservation of a crime scene.
3. Identify and analyze the various methods used to obtain information.

CJ250 POLICE ORGANIZATIONAL THEORY (3)

This course examines and analyzes the traditional concepts, techniques, policies and operating systems in the police component of the criminal justice system. Basic knowledge of the police organizational function, structure, processes, and behavior is emphasized. Theories related to the practice applied to the administration of justice process and the comprehension of administrative phenomena is explored. Course offering: As needed. Prerequisites: CJ100, EN100R, EN100W, Permission from CJ instructor and/or advisor is required.

Student Learning Outcomes (SLOs):

Upon successful completion of this course, students will be able to:

1. Apply the various management theories and styles.
2. Explain and evaluate the structure and organization of police and other law enforcement agencies.
3. Identify and analyze the concepts of leadership, decision making, accountability, responsibility, and liability.

CJ260 FORENSIC COMPUTER EXAMINER (4)

This course is designed to address training requirements for students seeking employment as forensic computer examiners in the public safety field. Specifically, this course is a requirement for the Forensic Computer Examiner concentration in the AS in Criminal Justice program. Course offering: As needed. Prerequisites: CJ122, CJ225

Student Learning Outcomes (SLOs):

Upon successful completion of this course, students will be able to:

1. Demonstrate knowledge required to successfully pass the Certified Forensic Computer Examiner test.
2. Analyze electronic data including storage and retrieval.
3. Compile computer evidence.
4. Identify how to process the electronic crime scene.

CJ290 CRIMINAL JUSTICE INTERNSHIP (3)

This course provides students a supervised work experience to develop skills necessary to succeed in the Criminal Justice field. The experience will acquaint students with terminology, facts and conceptions relating to a specific agency with in the Criminal Justice field. Also, students will evaluate the importance of that agency's role in the Criminal Justice process and their role as a Criminal Justice professional. Course offering: As needed

Student Learning Outcomes (SLOs):

Upon successful completion of this course, students will be able to:

1. Integrate classroom knowledge and theories with outside work experience.
2. Develop practical work related skills.

3. Understand the operations of a criminal justice related agency.
4. Practice the daily operations policy of a criminal justice related agency.

CM - COSMETOLOGY

CM101 COSMETOLOGY I (5)

The primary purpose of this cosmetology course is to train the student in the basic manipulative skills, safety judgments, proper work habits, and desirable attitudes necessary to obtain licensure and competency in entry-level positions in cosmetology. Permission from an instructor and/or advisor is required for all in class and salon practices (450 clock hours). Formerly CM105 and CM110. Course offering: As needed

Student Learning Outcomes (SLOs):

Upon successful completion of this course, students will be able to:

1. Demonstrate a positive attitude and sense of personal integrity in Nail Care, Skin Care, and Hair Care.
2. Deliver effective communication skills, visual poise and proper sanitation during Nail, Skin, and Hair services.
3. Perform basic analytical skills to determine the desired look for each client's manicure, pedicure, facials and haircuts.

CM102 COSMETOLOGY II (5)

This lecture/lab will include instruction in haircutting, hair coloring, chemical texture services, principles of hair design and hairstyling. Preparation for the Guam Board of Cosmetology licensing examination. Course offering: As needed. Prerequisite: CM101.

Student Learning Outcomes (SLOs):

Upon successful completion of this course, students will be able to:

1. Demonstrate the ability to correctly perform a chemical texture service.
2. Demonstrate the ability to correctly apply hair color services.
3. Demonstrate the ability to perform haircutting services to customer satisfaction.

CM102L SALON I (6)

This laboratory course focuses on practice in the art of cosmetology. The student performs beauty culture practices in both class situations and under salon conditions in the laboratory. Formerly CM115. Course offering: As needed. Corequisite: CM101

Student Learning Outcomes (SLOs):

Upon successful completion of this course, students will be able to:

1. Demonstrate the ability to perform a basic manicure/pedicure procedure.
2. Demonstrate the ability to perform basic facial/massage treatments.
3. Demonstrate the ability to perform basic haircutting skills.

CM103L SALON I ADVANCED (2)

This laboratory course focuses on practice in the art of cosmetology. The student performs beauty culture practices in both class situations and under salon conditions in the laboratory. Formerly CM115. Course offering: As needed. Prerequisites: CM101, CM102L, CM117

Student Learning Outcomes (SLOs):

Upon successful completion of this course, students will be able to:

1. Demonstrate the psychomotor skills needed for nail care services rendered at a mastery level.
2. Demonstrate the psychomotor skills needed for skin care services rendered at a mastery level.
3. Demonstrate the psychomotor skills needed for hair and cutting skills rendered at a mastery level.

CM104 COSMETOLOGY III (5)

Allow skills introduced and practices in CM101 Cosmetology I and CM102 Cosmetology II to develop a mastery level, in a lab/salon environment. This lab, open to the public, is designed to give the students the opportunity to perfect their cosmetology skills. The level of performance rendered, is at minimum needed for an entry-level skilled position. This lab is 450 clock hours. Course offering: As needed. Prerequisites: CM101 & CM102

Student Learning Outcomes (SLOs):

Upon successful completion of this course, students will be able to:

1. Demonstrate the ability to perform hair-cutting services.
2. Demonstrate the ability to perform hair-color services.
3. Demonstrate the ability to perform chemical texture services.

CM292 Cosmetology Practicum (2)

To provide individuals training for cosmetology-related occupations with methods and techniques to develop effective interpersonal skills and professional ethics. The supervised work experience affords the students the opportunity to develop skills necessary to succeed in the cosmetology profession. This practicum is 300 clock hours. Course offering: As needed. Prerequisites: CM101 & CM102

Student Learning Outcomes (SLOs):

Upon successful completion of this course, students will be able to:

1. Demonstrate and employ the skills needed to work in a variety of cosmetology-related occupations, such as an esthetician, salon owner, nail specialist, hair color specialist and makeup artist.
2. Demonstrate the skills needed to pass the National-Interstate Council of State Boards of Cosmetology Practical Examination.
3. Apply effective interpersonal skills and practice professional ethics needed to succeed in this profession.

CS - COMPUTER SCIENCE

CS101 INTRODUCTION TO COMPUTER SYSTEMS & INFORMATION TECHNOLOGY (3)

This course provides students with an overview of computer technology, computer hardware and software, data communications, the Internet, social and ethical impacts on society, and an exploration of career opportunities. Course offering: As needed. Prerequisite: EN100W, EN100R

Student Learning Outcomes (SLOs):

Upon successful completion of this course, students will be able to:

1. Demonstrate knowledge of computer hardware and software concepts.
2. Apply computer skills to navigate around a computer, choose the proper application software to produce a desired result and access information on the World Wide Web.
3. State the social and ethical implications of computers in business and society.

CS102 COMPUTER OPERATIONS (3)

This course features hands-on experience on multiprogramming computer systems with various I/O devices. Operation procedures are given on the data entry stations, workstations, diskette drives, and system printers. Students learn control commands of display and console stations. CL statements, supplied procedures, utility programs, and program products. They are also introduced to the organization of a data processing center and its operations procedures. Permission from instructor and/or advisor is required. Course offering: As needed. Prerequisite: CS101

Student Learning Outcomes (SLOs):

Upon successful completion of this course, students will be able to:

1. Contract single user and multi-user operating systems.
2. Use system utilities at the basic level on AS/400.
3. Create a simple menu system using Command Language (CL) program and Screen Design Aid (SDA).

CS103 RPG (3)

This course provides the student with the programming concepts and techniques necessary to solve business type problems. Students learn program logic. They are also taught how to code, compile, test, debug, and execute programs. RPG (Report Program Generator) is the programming language used in this course. Course offering: As needed

Student Learning Outcomes (SLOs):

Upon successful completion of this course, students will be able to:

1. Comprehend basic syntax and command structure of RPG.
2. Properly use commands to create programs to solve problems.
3. Debug programs to find syntax and logical errors.

CS104 VISUAL BASIC PROGRAMMING (3)

This course covers the introductory fundamentals of the Visual Basic programming language. Students will learn object oriented and event-driven programming concepts and develop applications using Visual Basic. Permission from instructor and/or from a computer science advisor is required. Course offering: Fall & Spring only. Prerequisites: CS101

Student Learning Outcomes (SLOs):

Upon successful completion of this course, students will be able to:

1. Describe basic syntax and command structure of Visual Basic Programming.
2. Properly use commands to create programs to solve problems.
3. Debug programs to find syntax and logical errors.

CS110 INTRODUCTION TO THE INTERNET (3)

This course introduces the student to the many resources on the Internet. Student will use the Internet and World Wide Web resources to communicate, collaborate and retrieve information. The course will also cover simple web page development using a variety of web editing tools. Course offering: As needed

Student Learning Outcomes (SLOs):

Upon successful completion of this course, students will be able to:

1. Use the Internet to communicate, collaborate and retrieve information.
2. Identify positive social and ethical behaviors when using technology and the consequences of misuse.
3. Plan, design and publish a Web site.

CS112 INTRODUCTION TO LINUX (3)

Introduction to Linux course presents students with an open source alternative to Windows operating system. This course discusses installation, simple administrations, and usage of Linux systems as both workstation and server. Questions about where to find, how to install and configure, and how to use open source software will be covered. Course offering: As needed.

Student Learning Outcomes (SLOs):

Upon successful completion of this course, students will be able to:

1. Identify practical differences between Windows and Linux operating systems.
2. Install a linux workstation and perform a simple configuration.
3. Use linux system for everyday purposes.

CS151 WINDOWS APPLICATIONS (3)

The students will learn fundamental nature of microcomputers: the hardware devices that make up the physical machine, the operating systems, and the major types of application software. Students are exposed to the concepts and applications of the word processing, graphics, desktop publishing, spreadsheet, database, and communications software. They are shown the far reaching effects of computers and technology, and the applications that computers have to their own lives. Finally, the course provides students hands-on experience with real world applications using the Windows environment and the application software for Windows: Word Processing, Spreadsheet, Database and Presentation. Formerly CS150. Course offering: Every semester. Prerequisites: OA101 or permission

Student Learning Outcomes (SLOs):

Upon successful completion of this course, students will be able to:

1. Create, edit, format and print documents using Microsoft Word.
2. Create spreadsheets and charts to solve problems that involve numeric data using Microsoft Excel.
3. Create databases to store, retrieve, analyze and print information using Microsoft Access.
4. Create, edit, and format professional presentations using Microsoft PowerPoint.

CS152 MACINTOSH APPLICATIONS (3)

This course provides students with a basic understanding of the first computer operating system with a Graphic User Interface. The goals of this course include hands-on familiarization with the basic Mac OS and common everyday applications such as word processing, spreadsheet, database and Internet access; and an introduction to areas in which the Mac pioneered and remains the leader in: Desktop Publishing and Graphics. Most of all, this course is designed to show students how to enjoy and have fun with their computers. This course is a prerequisite for courses in Visual Communications. Permission from instructor and/or a computer science advisor is required. Course offering: Fall & Spring only. Prerequisite: OA101

Student Learning Outcomes (SLOs):

Upon successful completion of this course, students will be able to:

1. Create, edit, format, and print documents using Microsoft Word.
2. Create and edit basic worksheet and workbook formulas and charts using Microsoft Excel.
3. Create, modify, and design basic database tables, queries and forms using FileMaker Pro.
4. Create, edit, and format electronic presentations using Microsoft PowerPoint.

CS202 COBOL (3)

The purpose of the course is to teach computer programming in COBOL (Common Business Oriented Language). A number of practical programs are written. Program problems deal with processing small volume of data using workstation keyboard and large volume of data using the printer and disk/diskette drives. Printer output includes titles, headings, vertical and horizontal spacing, etc. Statements of input/output, data manipulation, arithmetic, conditional, and procedure branching are covered. Arrays and subscripts, tables, subroutines, files, and other COBOL features are also discussed. Permission from instructor and/or a computer science advisor is required. Course offering: As needed. Prerequisite: CS101

Student Learning Outcomes (SLOs):

Upon successful completion of this course, students will be able to:

1. Comprehend basic syntax and command structure of COBOL.
2. Properly use commands to create programs to solve problems.
3. Debug programs to find syntax and logical errors.

CS203 SYSTEMS ANALYSIS & DESIGN (3)

This course will emphasize systems analysis and stress information flow as the best approaches to understanding business data processing requirements. Computer hardware/software, systems design, and systems management will be described. Organizational aspects will be explained and examples of various systems will be presented. Course offering: Fall only. Prerequisites: CS101 and CS103 or CS104 or CS202.

Student Learning Outcomes (SLOs):

Upon successful completion of this course, students will be able to:

1. Investigate the initial system request.
2. Analyze various aspects of the system request, and produce system requirement documents.
3. Design the solution to meet the system requirement documents (virtual solution).
4. Develop program codes to meet the system requirement (actual solution).
5. Implement the actual solution into the system and fine tune it to best meet the needs of the users.

CS204 C PROGRAMMING (3)

The purpose of the course is to teach students how to use the C language. The C language concepts and methods to be covered include program development, algorithms, data types, operators, expressions, input/output and files, program control, pointers, functions and macros, variable storage and memory models, arrays, data structures, unions, graphics, and BIOS services. Structured program design will be emphasized. Formerly CS105. Course offering: As needed. Prerequisites: CS101, CS103, CS104, CS202, MA110

Student Learning Outcomes (SLOs):

Upon successful completion of this course, students will be able to:

1. Comprehend basic syntax and command structure of C Language.
2. Properly use commands to create programs to solve problems.
3. Debug programs to find syntax and logical errors.

CS205 NETWORK COMMUNICATIONS (4)

This course provides the latest technology in network communications. Students will learn to add and delete user groups, back in the file server, create and debug login scripts, load application software, maintain network security, configure printer and printer servers and troubleshoot. Course offering: Spring only. Prerequisite: EE111

Student Learning Outcomes (SLOs):

Upon successful completion of this course, students will be able to:

1. Identify the hardware and software components of a local area network.
2. Describe various LAN topologies and communication standards.
3. Identify and perform LAN backup procedures.

CS206 JAVA I (3)

Students who take this course do not need to have previous programming background. This course introduces problem-solving methods and algorithm development using the high-level programming language Java. Students will learn to design, code, debug, and document programs using modern engineering techniques in PC or Linux based environment, create Java applications that leverage the object-oriented features of the Java language, such as encapsulation, inheritance, and polymorphism, execute and run a Java application, use Java data types and expressions, use Java flow control constructs, use arrays and other data collections, and improvement error-handling techniques using exception handling. Course offering: As needed

Student Learning Outcomes (SLOs):

Upon successful completion of this course, students will be able to:

1. Identify basic syntax and command structure in Java.
2. Properly use commands to create programs to solve problems.
3. Debug programs to find syntax and logical errors.

CS210A CONFIGURING WINDOWS SYSTEMS (3)

This course is intended for IT professionals who are interested in expanding their knowledge base and technical skills about Windows 7 client. In this course, students learn how to install, upgrade, and migrate to Windows 7 client. Students then configure Windows 7 client for network connectivity, security, maintenance, and mobile computing. This course helps students prepare for the Microsoft Certification Exam 70-680: Windows 7 Configuring. Course offering: As needed. Prerequisites: EE211

Student Learning Outcomes (SLOs):

Upon successful completion of this course, students will be able to:

1. Perform a clean installation of Windows 7, upgrade to Windows 7, and migrate user-related data and settings from an earlier version of Windows.
2. Secure Windows 7 client computers.
3. Optimize and maintain the performance and reliability of a Windows 7 client computer.

CS240 MICROSOFT® OFFICE ACCESS 2010 (3)

This course is designed to provide the basic, intermediate and advance operations of the Microsoft Access database program. It provides the fundamental knowledge and techniques needed to use more complex Access features such as maintaining databases and using programming techniques that enhance Access applications, creating databases, tables, and relationships, as well as working with and revising intermediate-level queries, forms, and reports. Students will also be introduced to integrating Access data with other applications such as Microsoft Office Word or Excel. Course offering: Fall only. Prerequisites: OA101 or Instructor's approval

Student Learning Outcomes (SLOs):

Upon successful completion of this course, students will be able to:

1. Build the structure of a database.
2. Manage data in tables.
3. Design Forms & Reports.
4. Create flexible queries to display specified records.
5. Maintain databases using Microsoft® Office Access® 2010 tools.

CS241 MICROSOFT® OFFICE EXCEL 2010 (3)

Students will receive a solid foundation in the basic, intermediate and advanced skills for Microsoft® Office Excel® 2010 such as running calculations on data, sorting and filtering numeric data. In this course, students will extend their knowledge into some of the more specialized and advanced capabilities of Excel by automating some common tasks, applying advanced analysis techniques to more complex data sets, collaborating on worksheets with others, and sharing Excel data with other applications. Course offering: Fall only. Prerequisites: OA101 or Instructor's approval

Student Learning Outcomes (SLOs):

Upon successful completion of this course, students will be able to:

1. Create, edit, and enhance Microsoft® Office Excel 2010 worksheets and workbooks.
2. Use advanced formulas and work with various tools to analyze data in spreadsheet.
3. Automate common Excel tasks, apply advanced analysis techniques to more complex data sets, troubleshoot errors, collaborate on worksheets and share Excel data with other applications.

CS242 MICROSOFT® OFFICE OUTLOOK 2010 (2)

Students will learn to use Outlook to compose and send email, schedule appointments and meetings, manage contact information, schedule tasks, and create notes. they will also learn to customize the Outlook environment, calendar, and mail messages, and

will also track, share, assign, and quickly locate various Outlook items. Course offering: As needed. Prerequisites: OA101 or Instructor's approval

Student Learning Outcomes (SLOs):

Upon successful completion of this course, students will be able to:

1. Understand the Outlook interface, send mail, and respond to messages.
2. Manage and set calendar options.
3. Manage contacts and contact information.
4. Schedule appointments and meetings.
5. Manage tasks and notes.

CS243 MICROSOFT® OFFICE POWERPOINT 2010 (2)

Students will explore the PowerPoint environment and create a presentation. Students will learn to enhance the visual appeal, by adding graphical onjects to a presentation and modify them. Students will enhance their presentation by using features that will transform it into a powerful means of communication. Students will finalize a presentation and secure it to authenticate its validity. Course offering: Fall only . Prerequisites: OA101 or Instructor's approval

Student Learning Outcomes (SLOs):

Upon successful completion of this course, students will be able to:

1. Create a presentation.
2. Add special effects to a presentation.
3. Customize a slide show.
4. Collaborate on a presentation.
5. Secure and distribute a presentation.

CS244 MICROSOFT® OFFICE WORD 2010 (3)

Students will learn how to improve the quality of their work bu enhancing documents with customized Microsoft® Word 2010 elements. Students will create complex documents in Microsoft® Word 2010 by adding components such as, customized lists, tables, charts, and graphics in addition to creating personalized Microsoft® Word 2010 efficiency tools. Course offering: Fall only. Prerequisites: OA101 or Instructor's approval

Student Learning Outcomes (SLOs):

Upon successful completion of this course, students will be able to:

1. Create, edit, and enhance standard business documents.
2. Create complex documents and build personalized efficiency tools.
3. Create, manage, revise and distribute documents.

CS252 ADVANCED RPG (3)

This course provides the students with advanced application techniques in computer programming in the RPG/ILE (Report Language Genreator/Integrated Language Environment). The concepts of structured programming and top down design, RPG/ILE advanced statements, and utility programs are taught. The students learn how to apply the above concepts to program planning, program design, coding, presentation, and documentation. Course offering: Spring only. Prerequisites: CS101, CS103

Student Learning Outcomes (SLOs):

Upon successful completion of this course, students will be able to:

1. Describe basic syntax and command structure.
2. Properly use commands to create programs to solve problems.
3. Debug programs to find syntax and logical errors.
4. Integrate the previously covered material into a larger complex system using RPG/ILE, CL (Command Language), SEU (Source Entry Utility), SDA (Screen Design Aid), and IDDU (Interactive Data Definition Utility).

CS290 SPECIAL PROJECT (1-6)

This course is open to first year and second year students enrolled in Computer Science. The type, place, and amount of work will be carefully planned by the instructor, student, and a representative of the agency or activity involved (if required). Practical/specialized working experience in the area of data entry, data control, computer operations, computer programming and or systems analysis may be arranged. The student will be expected to meet at least once a week in conferences with the instructor. A term report summarizing his or her experience will be written by the student. Course offering: As needed

Student Learning Outcomes (SLOs):

Upon successful completion of this course, students will be able to:

1. Perform beginning or intermediate level tasks of a data entry clerk, data control clerk, computer programmer, or a systems analyst.
2. Program in a specific computer language.
3. Refine problems and data into programmable format of a specific computer language.
4. Test and debug programs in a specific computer language.

CS298 CO-OP/WORK-LEARN (1-6)

This course provides students a supervised work experience where they develop skills necessary to be successful in an information technology position. Course offering: As needed. Prerequisite: Complete at least 18 credits in Technical Requirements.

Student Learning Outcomes (SLOs):

Upon successful completion of this course, students will be able to:

1. Obtain supervised work experience to develop skills necessary to succeed in information technology positions.
2. Demonstrate effective human relation skills with co-workers and subordinates according to the expectations of a supervisor.
3. Apply principles of personal responsibility and ethical behavior to the community and in the workplace.

CT - CONSTRUCTION TRADES

CT100 INTRODUCTION TO CONSTRUCTION TRADES (5)

This course introduces students to core principles in the construction trades, providing them with the foundational knowledge necessary for study and experiential development of skills in each of GCC's construction trades areas. This course focuses on basic construction safety, construction mathematics, hand tools, power tools, reading of blueprints, basic rigging, communication skills and employability skills. It also focuses on the development of an appropriate attitude as related to professional work, and the acquisition of knowledge and information essential for success in initial pursuit of a career in the construction trades. Course offering: As needed

Student Learning Outcomes (SLOs):

Upon successful completion of this course, students will be able to:

1. Describe basic knowledge and skills needed in various construction trades areas.
2. Identify the proper names of tools and equipment used in the construction technology field.
3. Develop an appropriate work ethic and attitude necessary to succeed in the construction field.

CT140 INDUSTRIAL SAFETY (3)

This course develops safe working concepts and habits for the prevention of accidents resulting in personnel injury and damage to building facilities and equipment. Students also learn about requirements of federal and local legislation for personnel and equipment safety. Formerly SP153. Course offering: As needed

Student Learning Outcomes (SLOs):

Upon successful completion of this course, students will be able to:

1. Identify accident prevention practices within the construction trades industry.
2. Demonstrate proficiency in recognizing safety hazards and corrective measures on a job site.
3. List national (international) and local agencies that provide safety standards and be familiar with available resources.

CT152 FUNDAMENTALS OF PLUMBING (4)

This course introduces the student to the use, safety, care and maintenance of special tools and equipment for basic cold water supply (pipes, fittings, valves, safety devices, appliances), and drainage systems (sewers, drains, vents, traps, test, and maintenance). Course offering: As needed

Student Learning Outcomes (SLOs):

Upon successful completion of this course, students will be able to:

1. Demonstrate understanding of the basic science concepts and core principles related to plumbing and piping.
2. Explain the correct use of tools, supplies, and equipment needed in the plumbing industry.
3. Discuss the various local and global career opportunities for professional plumber/pipe-fitters.
4. Demonstrate basic knowledge of cold water supply and drainage system concepts.
5. Identify and explain the correct use of tools, supplies, and equipment needed in the plumbing field.
6. Discuss industry related safety standards.

CT152A PLUMBING LEVEL I (4)

This course builds on content from CT152, and introduces students to core principles in plumbing, providing them with the foundational knowledge necessary for more advanced study and experiential development of skills in this trade area. This course focuses on the use, care, safe operations and maintenance of hand and power tools; the use, care and safe handling of supplies and materials; the development of an appropriate attitude as related to professional plumbing work, and the acquisition of knowledge and information essential for success in initial pursuit of a career in plumbing. Specific emphasis is placed on cast-iron pipe and fittings, carbon steel pipe and fittings, corrugated stainless steel tubing, fixtures and faucets, drain, waste and vent systems, and water distribution systems. Course offering: As needed Prerequisites: CT100, (or permission of the instructor) CT152

Student Learning Outcomes (SLOs):

Upon successful completion of this course, students will be able to:

1. Demonstrate the correct use of tools, supplies, and equipment needed in the plumbing field adhering to all industry safety standards.
2. Develop and exhibit professionalism and work ethic as related to the plumbing and pipefitting career.
3. Demonstrate understanding of cast-iron pipe and fittings, carbon steel pipe and fittings, corrugated stainless steel tubing, fixtures and faucets, drain, waste and vent systems, and water distribution systems.

CT153 INTRODUCTION TO CARPENTRY (3)

This introductory course is designed to familiarize students with the use, care, safe operations and maintenance of hand and power tools; to develop their skills in the use, care, and safe handling of supplies and materials; and to provide them with occupational information about carpentry. Formerly CT053. Course offering: As needed

Student Learning Outcomes (SLOs):

Upon successful completion of this course, students will be able to:

1. Identify commonly used tools, supplies, and equipment in the carpentry profession.
2. Explain the safe use and care of various carpentry tools, supplies and equipment.
3. Identify common terminology in the carpentry field.
4. Discuss the various local and global career opportunities for professional carpenters.

CT154A MASONRY LEVEL I (4)

This course focuses on the skills and academic competencies necessary for safe, professional, as well as effective practice of basic masonry in entry-level masonry-related occupations. Safety, proper use, care and maintenance of masonry tools and equipment will be emphasized. Mastery of selected construction-related competencies will be demonstrated through the completion of projects. Students will be oriented to the process of securing entry-level masonry positions. Course offering: As needed Prerequisites: CT100 (or permission of the instructor)

Student Learning Outcomes (SLOs):

Upon successful completion of this course, students will be able to:

1. Demonstrate the knowledge and skills needed to properly construct a concrete structure.
2. Properly complete the laying of blocks for walls and columns.
3. Demonstrate the correct use of tools, supplies, and equipment needed in the construction of a masonry project.

CT154B MASONRY LEVEL II (4)

This course builds on content addressed in CT154A, and introduces students to core principles in masonry, providing them with the foundational knowledge necessary for more advanced study and experiential development of skills in Construction Trades. This course focuses on masonry design, layout and project planning, on laying blocks, walls and columns, and on construction procedures. It also reviews students' knowledge of, and ability to safely use supplies, equipment, hand tools, and power tools. Course offering: As needed. Prerequisites: CT100, CT154A

Student Learning Outcomes (SLOs):

Upon successful completion of this course, students will be able to:

1. Design the layout of a masonry project.
2. Demonstrate understanding of core principles in masonry.
3. Demonstrate the correct use of tools, supplies, and equipment needed in the construction of a masonry project adhering to all industry safety standards.

CT158 HEAVY EQUIPMENT OPERATION (3)

This course offers training in the maintenance and operations of selected power construction equipment ranging from air compressors to dozers. Can be repeated for credit. Course offering: As needed

Student Learning Outcomes (SLOs):

Upon successful completion of this course, students will be able to:

1. Identify all heavy equipment components and their functions.
2. Demonstrate how to properly operate any given heavy equipment.
3. Demonstrate how to properly service any given heavy equipment.

CT165A ELECTRICITY LEVEL I (5)

This course introduces students to core principles in electricity, providing them with the foundational knowledge necessary for more advanced study and experiential development of skills in Construction Trades. This course focuses on the use, care, safe operations and maintenance of electrical tools and equipment, supplies and materials; the development of an appropriate attitude as related to professional electrical work, and the acquisition of knowledge and information essential for success in initial pursuit of a career as an electrician. Specific emphasis will be placed on students' development of knowledge and skills related to introductory electrical concepts, safety procedures, hand bending, hand and power tools, fasteners and anchors, electrical mathematics, electrical concepts and theories and electrical test equipment. Course offering: As needed. Prerequisite: CT100

Student Learning Outcomes (SLOs):

Upon successful completion of this course, students will be able to:

1. Explain skills needed by a licensed electrician.
2. Demonstrate understanding of safe operation and maintenance of electrical tools.
3. Develop an appropriate attitude related to professional electrical work.
4. Discuss the variety of electrical career paths.

CT165B ELECTRICITY LEVEL II (5)

This course introduces students to core principles in electricity, providing them with the foundational knowledge necessary for more advanced study and experiential development of skills in Construction Trades. This course focuses on the use, care, safe operations and maintenance of electrical tools and equipment, supplies and materials; the development of an appropriate attitude as related to professional electrical work, and the acquisition of knowledge and information essential for success in initial pursuit of a career as an electrician. Specific emphasis will be placed on students' development of knowledge and skills related to National Electric Code (NEC), raceways, boxes and fittings, conductors, electrical blueprints, and commercial, industrial and residential electrical wiring. Course offering: As needed. Prerequisites: CT100, CT165A

Student Learning Outcomes (SLOs):

Upon successful completion of this course, students will be able to:

1. Demonstrate appropriate use and care of various hand and power tools used by professional electricians.
2. Develop the knowledge and skills related to National Electric Code (NEC), raceways, boxes and fittings, conductors, and electrical blueprints.
3. Demonstrate knowledge and skills needed in the electrical wiring of commercial, industrial, and residential areas.

CT165C ELECTRICITY LEVEL III (5)

This course introduces students to core principles in electricity, providing them with the foundational knowledge necessary for more advanced study and experiential development of skills in Construction Trades. This course focuses on the use, care, safe operations and maintenance of electrical tools and equipment, supplies and materials; the development of an appropriate attitude as related to professional electrical work, and the acquisition of knowledge and information essential for success in initial pursuit of a career as an electrician. Specific emphasis will be placed on students' development of knowledge and skills related to alternating current, motors, grounding, conduit bending, boxes and fittings. Course offering: As needed. Prerequisites: CT100, CT165A, CT165B

Student Learning Outcomes (SLOs):

Upon successful completion of this course, students will be able to:

1. Acquire entry-level skills that are essential for success in the initial pursuit of a career as an electrician.
2. Demonstrate knowledge and skills related to alternating current, motors, grounding, conduit bendign, boxes and fittings.
3. Demonstrate knowledge of basic physics concepts related to electricity and identify common terminology.

CT165D ELECTRICITY LEVEL IV (5)

This course introduces students to core principles in electricity, providing them with the foundational knowledge necessary for more advanced study and experiential development of skills in Construction Trades. This course focuses on the use, care, safe operations and maintenance of electrical tools and equipment, supplies and materials; the development of an appropriate attitude as related to professional electrical work, and the acquisition of knowledge and information essential for success in initial pursuit of a career as an electrician. Specific emphasis will be placed on students' development of knowledge and skills related to conductor installations, cable trays, conductor terminations and splices, installation of electrical services, circuit breakers and fuses, contactors and relays, and electric lighting. Course offering: As needed. Prerequisites: CT100, CT165A, CT165B, CT165C

Student Learning Outcomes (SLOs):

Upon successful completion of this course, students will be able to:

1. Demonstrate use and care of various hand and power tools used by professional electricians adhering to all industry safety standards.
2. Demonstrate the knowledge and skills related to conductor installations, cable trays, conductor terminations and splices, installation of electrical services, circuit breakers and fuses, contractors and relays, and electric lighting.
3. Demonstrate professionalism and an appropriate work ethic needed to succeed as an entry-level electrician.

CT172 PLUMBING INSTALLATION AND DESIGN (3)

This course provides the student with the application of methods and theory in installation and design of residential and commercial plumbing systems of cold water supply, hot water supply and drainage systems. Course offering: As needed. Prerequisite: AE103

Student Learning Outcomes (SLOs):

Upon successful completion of this course, students will be able to:

1. Determine correct elevations required in setting up wastewater lines.
2. Properly install water pipes as detailed by given blueprints.
3. Test all plumbing systems using a pressurized method.

CT173 ROUGH FRAMING AND EXTERIOR FINISHING (3)

This course concentrates on basic structure construction, which includes footing and foundation, sill, floor, wall partition, roof framing, and door and window framing. Course offering: As needed. Prerequisites: AE103, CT153

Student Learning Outcomes (SLOs):

Upon successful completion of this course, students will be able to:

1. Demonstrate the knowledge and skills needed to properly construct a structure.
2. Demonstrate basic skills needed to complete the framing of a given project.
3. Demonstrate the correct use of tools, supplies, and equipment needed in the framing and finishing of a project.

CT182 UNIFORM PLUMBING CODE (3)

This course concentrates on achieving familiarity with and understanding of the Uniform Plumbing Code. Students will be expected to use the Uniform Plumbing Code manual as a resource to determine specifications during design, construction and installation of plumbing systems. This course does not require any previous knowledge or skill in plumbing. Course offering: As needed

Student Learning Outcomes (SLOs):

Upon successful completion of this course, students will be able to:

1. Demonstrate knowledge of laws and ordinances governing plumbing systems.
2. Explain the dynamics of the installation of residential and commercial plumbing systems.
3. Efficiently use the Uniform Plumbing Code manual.

CT183 FINISHING (3)

This course is designed to help students know and understand the use, methods, and materials needed in finishing a residential house. The course covers the installation of wall and ceiling panels, hanging windows and doors, construction of cabinets and closets, application of molds and trims, bathroom materials and finishing hardware. Course offering: As needed. Prerequisite: CT153

Student Learning Outcomes (SLOs):

Upon successful completion of this course, students will be able to:

1. Dial in angles and make accurate cuts with a slide compound saw.
2. Demonstrate skills needed to center windows, cabinets, and doors using wedges and levels.
3. Install a variety of trims as specified in given blueprints.

CT185A REFRIGERATION AND AIR CONDITIONING LEVEL I (5)

This course introduces students to core principles in air conditioning and refrigeration, providing them with the foundational knowledge necessary for more advanced study and experiential development of skills in Construction Trades. Specific instructional emphasis is placed on refrigeration and air conditioning safety, blueprint reading, copper and plastic piping, soldering and brazing, ferrous metal piping, basic electricity, and introduction to cooling. This course focuses on the use, care, safe operations and maintenance of equipment; the use, care and safe handling of supplies and materials; the development of an appropriate attitude as related to professional refrigeration and air conditioning work, and the acquisition of knowledge and information essential for success in initial pursuit of a career in the air conditioning and refrigeration trade. Course offering: As needed. Prerequisites: CT100, (or permission of the instructor)

Student Learning Outcomes (SLOs):

Upon successful completion of this course, students will be able to:

1. Demonstrate understanding of the core principles and terminology related to air conditioning and refrigeration.
2. Identify the safe use of equipment, supplies, and materials used in heating, ventilation, and air-conditioning (HVAC).
3. Explain the various careers associated with the HVAC industry both locally and globally.

CT185B REFRIGERATION AND AIR CONDITIONING LEVEL II (5)

This course introduces students to core principles in air conditioning and refrigeration, providing them with basic knowledge necessary for more advanced study and experiential development of skills in Construction Trades. Specific instructional emphasis is placed on introductory HVAC, trade mathematics, tools, air distribution systems, chimneys, vents and flues, and maintenance skills for the service technician. This course focuses on the use, care, safe operations and maintenance of equipment; the use, care and safe handling of supplies and materials; the development of an appropriate attitude as related to professional refrigeration and air conditioning work, and the acquisition of knowledge and information essential for success in initial pursuit of a career in the air conditioning and refrigeration trade. Course offering: As needed. Prerequisite: CT100, CT185A

Student Learning Outcomes (SLOs):

Upon successful completion of this course, students will be able to:

1. Explain the basic knowledge and skills necessary for more advanced study in the heating, ventilation, and air-conditioning (HVAC) industry.
2. Demonstrate basic mathematical skills needed in the HVAC industry.
3. Acquire skills needed for the HVAC service technician.

CT185C REFRIGERATION AND AIR CONDITIONING LEVEL III (5)

This course introduces students to core principles in air conditioning and refrigeration, providing them with basic knowledge necessary for more advanced study and experiential development of skills in Construction Trades. Specific instructional emphasis is placed on alternating current, introduction to control circuit troubleshooting, metering devices, and leak detection, evacuation, recovery and charging. This course focuses on the use, care, safe operations and maintenance of equipment; the use, care and safe handling of supplies and materials; the development of an appropriate attitude as related to professional refrigeration and air conditioning work, and the acquisition of knowledge and information essential for success in initial pursuit of a career in the air conditioning and refrigeration trade. Course offering: As needed Prerequisite: CT100, CT185B

Student Learning Outcomes (SLOs):

Upon successful completion of this course, students will be able to:

1. Demonstrate the proper use, care, and safe operation and maintenance of equipment, supplies and materials used in the heating, ventilation, and air-conditioning (HVAC) industry.
2. Exhibit professionalism and work ethic deemed necessary to succeed as an entry-level refrigeration and air-conditioning technician.

CT193 CABINET MAKING AND MILLWORK (3)

This course covers the fabrication and installation of custom and factory-built cabinets and millwork. Course offering: As needed. Prerequisite: CT153

Student Learning Outcomes (SLOs):

Upon successful completion of this course, students will be able to:

1. Correctly assemble cabinetry following a given set of plans.
2. Design and build a cabinetry project.
3. Discuss current practices and materials used in cabinetry design.

CT196A FUNDAMENTALS OF OXYACETYLENE WELDING I (5)

This course introduces students to core principles in oxyacetylene welding, providing them with the foundational knowledge necessary for more advanced study and experiential development of skills in Construction Trades. This course focuses on the identification, use, care, safe operations, maintenance, assembling and disassembling of welding equipment and tools; the use, care and safe handling of supplies and materials; the development of an appropriate attitude as related to professional work, and the acquisition of knowledge and information essential for success in initial pursuit of a career in the field of welding. Course offering: As needed. Prerequisite: CT100

Student Learning Outcomes (SLOs):

Upon successful completion of this course, students will be able to:

1. Demonstrate the foundational knowledge necessary for a professional welding career.
2. Discuss the various local and global career opportunities for professional welders.

Identify commonly used tools, supplies, and equipment in the welding profession.

3. Explain the safe use and care of various welding tools, supplies and equipment.

4. Identify and explain codes governing welding.

CT196B FUNDAMENTALS OF OXYACETYLENE WELDING II (5)

This course builds upon content of CT196A, introducing students to core principles in oxyacetylene welding, providing them with the foundational knowledge necessary for more advanced study and experiential development of skills in Construction Trades. This course reviews students' knowledge and skills as related to careers and occupations using oxyacetylene welding, safety procedures, identification of supplies, equipment and tools, setting up and disassembling equipment and working with the torch flame. The course then focuses in-depth on performing cutting procedures and on portable oxyfuel cutting machine operation. Course offering: As needed. Prerequisites: CT100, CT196A

Student Learning Outcomes (SLOs):

Upon successful completion of this course, students will be able to:

1. Demonstrate the knowledge and skills required for basic oxyacetylene welding.
2. Demonstrate the correct use of supplies, tools, and equipment adhering to all industry safety standards.
3. Correctly set up, assemble, and disassemble equipment such as a torch flame and oxyfuel cutting machine.

CT197 NON-FERROUS WELDING LEVEL I (5)

This course focuses on the skills and academic competencies necessary for safe, professional, and effective practice in non-ferrous welding. This course also introduces and emphasizes basic non-ferrous welding skills, including gas metal arc welding, gas tungsten arc welding, flux cored arc welding, submerged arc welding, and plasma arc cutting. Mastery of competencies is demonstrated through completion of projects. Course offering: As needed. Prerequisite: CT100

Student Learning Outcomes (SLOs):

Upon successful completion of this course, students will be able to:

1. Demonstrate skills needed to weld select non-ferrous material using oxyfuel, shielded metal arc welding (SMAW), gas tungsten arc welding (GTAW), and metal to inert gas (MIG) processes.
2. Cut select non-ferrous materials using a plasma cutter.
3. Identify select non-ferrous material and explain its properties.

CT197A SHIELDED METAL ARC WELDING I (5)

This course focuses on the skills and academic competencies necessary for safe, professional and effective practice in basic shielded metal arc welding. Emphasis will be placed on core principles in shielded metal arc welding, including use, care, safe operations and maintenance of welding tools; the use, care and safe handling of supplies and materials; the development of an appropriate attitude as related to professional work, and the acquisition of knowledge and information essential for success in initial pursuit of a career in the field of welding. Course offering: As needed. Prerequisite: CT100

Student Learning Outcomes (SLOs):

Upon successful completion of this course, students will be able to:

1. Demonstrate the knowledge and skills required for basic shielded metal arc welding including selection of metals and electrodes, the making of beads, fillet welds, and groove welds.
2. Demonstrate the professionalism and an appropriate attitude necessary in the welding field.
3. Acquire skills needed for an entry-level position in the welding field.

CT197B SHIELDED METAL ARC WELDING II (5)

This course builds on the content addressed in CT197A, focusing on the skills and academic competencies necessary for safe, professional and effective practice in intermediate shielded metal arc welding. This course concentrates on knowledge and skills necessary for completion of SMAW open V-butt welds in all positions. Emphasis will be placed on core principles in shielded metal arc welding, including use, care, safe operations and maintenance of welding tools; the use, care and safe handling of supplies and materials; the development of an appropriate attitude as related to professional work, and the acquisition of knowledge and information essential for success in initial pursuit of a career in the field of welding. Course offering: As needed. Prerequisite: CT100

Student Learning Outcomes (SLOs):

Upon successful completion of this course, students will be able to:

1. Demonstrate skills needed in intermediate level shielded metal arc welding.
2. Perform shielded metal arc welding (SMAW) open V-butt welds in all positions.
3. Demonstrate the use, care, and proper maintenance of welding tools, equipment, and supplies following industry safety standards.

CE210 STATICS (3)

Statics is the study of bodies at rest - in a state of balance with their surroundings. Through the applications of the principles of statics, several questions emerge: What load will the column have to support? What is the tension of the bridge cable? What is

the mechanical advantage of the block and tackle? Statics is an analytical subject and it makes extensive use of mathematics in all of its forms: Algebra, Geometry, and Trigonometry. Course offering: As needed. Prerequisite: MA161B, SI141

Student Learning Outcomes (SLOs):

Upon successful completion of this course, students will be able to:

1. Successfully apply Algebra, Geometry, and Trigonometry as needed when solving problems.
2. Identify and describe key concepts of Force Systems, Center of Gravity, Equilibrium, Force Analysis of Structures, Friction, and Moment.
3. Identify and analyze given information and data and employ proper procedures and formulas to solve problems.
4. Solve problems using appropriate technology.

CT292 CONSTRUCTION PRACTICUM (3)

This course covers the application of field work related to the skills acquired in one of the seven concentration areas: carpentry, electricity, HVAC, masonry, plumbing, reinforcing metal worker, and welder. Students will experience a real work environment under the supervision of an industry qualified manager. Through on-the-job experience, students will gain a greater vision of what it means to be employed in the construction industry. Course offering: As needed. Prerequisite: Must complete all required CT courses under concentration area or with department chair approval

Student Learning Outcomes (SLOs):

Upon successful completion of this course, students will be able to:

1. Demonstrate proficiency in the operations of equipment and instruments needed for concentration area.
2. Demonstrate professional and ethical conduct as required by specific trade.
3. Apply employment skills in resume writing, job portfolio preparation, networking, and interviewing.
4. Troubleshoot problems within discipline area and make appropriate corrections.

EC - ECONOMICS

EC110 PRINCIPLES OF ECONOMICS (3)

This course is designed to help students understand the economic challenges and opportunities found in the United States mainland and Guam. This introductory course focuses on describing economic events, explaining why they occur, predicting similar future events, and recommending solutions. Financial responsibilities always impact people's lives and their dependents. Understanding the relationship between financial decisions and outcomes is extremely important for all citizens. Course offering: As needed. Prerequisites: EN100R, EN100W

Student Learning Outcomes (SLOs):

Upon successful completion of this course, students will be able to:

1. Discuss with understanding the basic principles and theories of economics.
2. Apply economic principles and theories to decisions societies make (Micro).
3. Demonstrate understanding of the relationships between various global markets and the impact those relationships have on the entire world economy (Macro).

ED - EDUCATION

ED150 INTRODUCTION TO TEACHING (3)

This course presents a unique and realistic approach to the fundamentals of teaching as a career. Not only are the rewards of teaching established and explored, but also the challenges educators face in the classroom. The course also introduces students to the larger topics of education, including discipline, history, philosophy, learning theories, teaching techniques, assessment, classroom management and diversity. Course offering: Fall/Spring/Summer

Student Learning Outcomes (SLOs):

Upon successful completion of this course, students will be able to:

1. Explain the basic foundations of education, including philosophical vies and key philosopher
2. Develop a philosophy of education that includes personal choices and plans for a future as an educator.
3. Synthesize and apply diverse teaching/learning strategies towards a cohesive presentation on a topic.

ED180 EDUCATIONAL METHODS (3)

This course provides the knowledge and skills necessary to plan, prepare, and implement educational activities and teaching strategies in an educational setting. It is designed for individuals interested in pursuing a career in an educational setting. Course content includes communication skills, instructional delivery, planning and implementing activities, record keeping, tracking student progress, and basic health and safety practices. Formerly ED190. Course offering: As needed

Student Learning Outcomes (SLOs):

Upon successful completion of this course, students will be able to:

1. Demonstrate basic knowledge of educational methods.
2. Plan and implement lesson plans, including the preparation of instructional materials that incorporate different methodologies and strategies.
3. Plan and implement educational games and activities.

ED181 CAREER & TECHNICAL EDUCATION METHODS I (3)

This course will assist the prospective and practicing teacher in developing and implementing career and technical education curriculum and teaching methods in the classroom. Formerly: Vocational Methods I. Course offering: As needed

Student Learning Outcomes (SLOs):

Upon successful completion of this course, students will be able to:

1. Utilize career and technical education teaching methods.
2. Demonstrate an understanding of the different aspects of learning.
3. Demonstrate an understanding of teaching as a profession.

ED201 CREATING AN ONLINE ENVIRONMENT USING MOODLE(3)

Students will use Moodle – "Modular Object-Oriented Dynamic Learning Environment" – as a supplement to traditional teaching methods in order to manage student learning outcomes. Moddie is a course management system designed to help educators create quality online courses. Moodel is considered Open Source software and runs without modification on Windows, Mac OS X and other systems. Upon completion of this course, students will be able to configure class settings, and set up "side blocks" using Moodle. Course offering: As needed

Student Learning Outcomes (SLOs):

Upon successful completion of this course, students will be able to:

1. Create a new user account and complete user profile.
2. Identify basic Moodle screen elements (navigation bar, side blocks, course content area, editing button).
3. Set up "side blocks" for courses, to include the following blocks: people, activities, calendar.
4. Access other blocks in the system, including: Upcoming Events, Search, Administration, Courses, Latest News, Activities, Recent Activity, and Online User.
5. Upload pictures and files.
6. Configure class settings, by setting up activities such as: assignments, chats, choices, forums, glossaries, quizzes, resources, surveys, wikis, workshops, and scroms.
7. Add content, summary, and resources.
8. Add or change discussion boards, journals, testes, quizzes, and online resources.
9. List the steps in instructing students to enter the classroom.

ED202 CREATING ONLINE LEARNING COMMUNITIES (3)

Students and teachers must acquire both the knowledge and the technical aspects of how to integrate the Internet into their learning environment. This course will stress the use of the computer and the Internet to establish online learning communities. Course offering: As needed

Student Learning Outcomes (SLOs):

Upon successful completion of this course, students will be able to:

1. Review, modify and manipulate Internet resources to help meet curricular needs.
2. Use major software tools, such as word processing, Internet browsing applications, Internet search engines, and presentation tools.
3. Evaluate software for the classroom.
4. Create an educational website using free template-based software.

ED210 CAREER AND TECHNICAL EDUCATION METHODS II (3)

This course is an extension of ED181 and provides students an opportunity to strengthen their skills in career and technical education curriculum development and instructional techniques. Students also prepare and utilize materials and techniques that support students with disabilities and those from diverse cultural and linguistic backgrounds. Formerly Vocational Methods II. Course offering: As needed

Student Learning Outcomes (SLOs):

Upon successful completion of this course, students will be able to:

1. Plan, develop and implement a microteaching lesson plan focusing on a career and technical education area.
2. Demonstrate an understanding of working with students with disabilities and those from diverse cultures and linguistic backgrounds.

ED220 HUMAN GROWTH & DEVELOPMENT (3)

This course covers the study of human growth and development from birth to death with special emphasis on the formative and school years of the child. An overview of the interrelationship between physical, emotional, intellectual, and social growth will be presented. Formerly ED170. Course offering: Fall, Spring & Summer.

Student Learning Outcomes (SLOs):

Upon successful completion of this course, students will be able to:

1. Describe the social, physical and cognitive development of adolescent and adult learners.
2. Demonstrate an understanding of how society, culture, and family impact individuals at each stage of their development and growth.
3. Describe the social, physical and cognitive development of school-age learners.

ED231 INTRODUCTION TO EXCEPTIONAL CHILDREN (3)

This course provides students with an introduction to exceptionalities, including gifted children and children with disabilities. An overview of all aspects of exceptionality including etiology, legal aspects, observations, and service delivery will be provided. Formerly CD231. Course offering: Spring only. Prerequisites: CD221 or ED220 or permission

Student Learning Outcomes (SLOs):

Upon successful completion of this course, students will be able to:

1. Describe ways to modify curriculum and provide accommodations for students with disabilities.
2. Demonstrate an understanding and respect for families who have children with disabilities, and develop strategies to empower families.
3. Demonstrate an understanding of the process of referral, screening, and assessment, including knowledge of the roles and responsibilities of primary team members.

ED240 REGGIO-INSPIRED APPROACH (3)

The Reggio-Inspired approach is based on students' interest; the teacher takes the role of a facilitator, assisting the students as they develop their projects. Course offering: As needed

Student Learning Outcomes (SLOs):

Upon successful completion of this course, students will be able to:

1. Plan, develop and implement a long-term project in the classroom applying the philosophy of the Reggio-Inspired approach to learning.
2. Evaluate the Reggio-Inspired Approach process.

ED241 READING STRATEGIES FOR THE CLASSROOM TEACHER (3)

This course incorportes strategies from the Motheread® curriculum, and presents methods and activities that strengthen reading and writing skills which will assist the practicing teacher in promoting literacy in the school environment. Course offering: As needed

Student Learning Outcomes (SLOs):

Upon successful completion of this course, students will be able to:

1. Demonstrate strategies that build literacy skills through storysharing activities.
2. Demonstrate strategies that provide appropriate reading role models through storysharing activities.
3. Share stories with a small group of students implementing Motheread's® five-step storytelling process.

ED251 CAREER AND TECHNICAL EDUCATION PHILOSOPHY (3)

This course examines the history and philosophy of career and technical education. Students will engage in current debates about career and technical education in particular, and the purpose of public education more generally. In addition, this course is designed to help students examine the diverse philosophical views that have affected, and are affecting, educational philosophy in the United States. Students will explore questions about the purposes, ends, and means of education, and assess their own philosophy through readings, discussion, and lectures. Course offering: As needed

Student Learning Outcomes (SLOs):

Upon successful completion of this course, students will be able to:

1. Develop and articulate an educational philosophy related to career and technical education.
2. Explain the basic theories of the foundations of education.

ED252 CAREER AND TECHNICAL EDUCATION ASSESSMENT (3)

This course will provide the practicing teacher with the knowledge of basic principles and methos of assessment, including measurement, test construction and evaluation that can be applied in the career and technical education classroom. Course offering: As needed. This course is equivalent to CEPD390.

Student Learning Outcomes (SLOs):

Upon successful completion of this course, students will be able to:

1. Construct and use an instrument to evaluate manipulative performance.
2. Analyze and interpret test results.

ED253 ORGANIZATION AND MANAGEMENT OF CAREER AND TECHNICAL EDUCATION/TECHNICAL EDUCATIONAL LABORATORIES (3)

This course assists students in the development of knowledge and skills necessary to organize and manage career and technical education laboratories. This includes utilizing knowledge of curriculum planning as a basis for development of a model laboratory plan suitable for actual use in the teaching field. This course also offers the student selected classroom and laboratory teaching and management techniques commonly used by career and technical educators Course offering: As needed. This course is equivalent to CEPD391.

Student Learning Outcomes (SLOs):

Upon successful completion of this course, students will be able to:

1. Develop a plan, including a realistic budget, to configure a career and technical classroom and training laboratory.
2. Develop related student resources and programs.

ED254 CAREER AND TECHNICAL EDUCATION CURRICULUM (3)

This course examines the development of career and technical education curriculum at the secondary and postsecondary levels. The use of resources and the integration of student organizations and service learning activities are also discussed in relation to developing career and technical education curriculum. Course offering: As needed. This course is equivalent to CEPD392.

Student Learning Outcomes (SLOs):

Upon successful completion of this course, students will be able to:

1. Develop a course and program career and technical education curriculum using appropriate resources.
2. Evaluate and modify curriculum.

ED283 REACHING DIVERSE LEARNERS (1)

Teachers face many challenges in the classrooms, including meeting the needs of diverse learners. This course targets practicing teachers and provides them with tools to assist them in meeting the needs of diverse learners and their families. Course offering: As needed

Student Learning Outcomes (SLOs):

Upon successful completion of this course, students will be able to:

1. Increase knowledge of practices and skills in meeting the needs of culturally and linguistically diverse learners.
2. Understand nontraditional careers and the use of career assessment tools.
3. Use technology as a resource in meeting the needs of diverse learners.
4. Increase knowledge of practices and skills in meeting the needs of special populations and/or their families, such as those with disabilities, homemakers, single parents, and displaced workers.

ED292 EDUCATION PRACTICUM (3)

This course provides students with the opportunity to demonstrate professional behaviors and implement their knowledge and skills while working with students in a variety of school settings under the supervision of a credentialed educator. A minimum of 135 hours of work is required, which may include observations, meetings with parents and professionals, and professional development activities. Course offering: As needed Prerequisite: Permission from advisor or Education Department Chairperson.

Student Learning Outcomes (SLOs):

Upon successful completion of this course, students will be able to:

1. Demonstrate professionalism and ethical conduct within the educational field.
2. Demonstrate appropriate knowledge and disposition needed to effectively work with students, including those from culturally and linguistically diverse backgrounds, and students with disabilities.
3. Develop and implement developmentally and age-appropriate teaching strategies needed to effectively work with students in a classroom setting.

EE - ELECTRONICS

EE103 ELECTRICITY I: DIRECT CURRENT CIRCUITS (4)

This is an introductory course covering the fundamentals of electricity. Students are introduced to the basics of Direct Current circuits: atomic structure, charges, electron current, Ohm's Law, DC components, simple series and parallel circuits, Watt's Law, Kerchief's Law and Thevin and Norton equivalent circuits. The course will also cover the use of VOM, soldering and reading simple circuit diagrams. Formerly EE103A & EE103B. Course offering: As needed

Student Learning Outcomes (SLOs):

Upon successful completion of this course, students will be able to:

1. Describe how to measure voltage, current and resistance on electrical circuits.
2. Identify different types of conducting materials and its electrical properties.
3. Describe and apply Ohm's law formulas in solving electronic and electrical problems.
4. Use electronic and electrical hand tools properly.
5. Perform laboratory experiments in direct current circuits.

EE104 ELECTRICITY II: ALTERNATING CURRENT CIRCUITS (4)

This is a continuation of course content introduced in Electricity I. Students learn the fundamentals of Alternating Current circuits: sine waves, coils, capacitors, transformers, motors, AC residential applications, series and parallel AC circuits, tuned circuits and resonance. Students will demonstrate the use of VOM and DVM for making AC measurements, use of an oscilloscope and other AC test instruments. Formerly EE104A and EE104B. Course offering: As needed. Prerequisites: EE103, MA110A

Student Learning Outcomes (SLOs):

Upon successful completion of this course, students will be able to:

1. Identify and describe safety rules as applied to electricity and electronics.
2. Describe how to use laboratory oscilloscope to measure voltage, frequency, and period (time).
3. Illustrate and explain different transformers turn's ratio, voltage ratio, and current ratio.
4. Describe resonance and its effects in electronic communications circuits.
5. Perform laboratory experiments in alternating current circuits.

EE107 INTRODUCTION TO INSTRUMENTATION (3)

This is an introductory course in instrumentation that covers typical metered electronic measuring devices used in a wide range of technical and scientific fields. The student will receive a thorough grounding in meter theory, design, and application. Prerequisite: EE112

Student Learning Outcomes (SLOs):

Upon successful completion of this course, students will be able to:

1. Demonstrate and explain the purpose and use of voltmeters, ammeters, and ohmmeters in measuring voltages, currents and resistances.
2. Illustrate and calculate the meter shunt, resistance multiplier, and the current limiting resistances of a voltmeter, ammeter and ohmmeter.
3. Explain and illustrate the advantages of digital meters over an analog type of meters.
4. List four integrating techniques as applied to digital meters and explain the operation of each.
5. Identify the various oscilloscope controls and illustrate how they are being used to measure average value, RMS or effective value, peak value, peak to peak value, frequency, period, pulse time, pulse repetition frequency, and phase shift of an AC circuits.

EE112 ELECTRONIC DEVICES (4)

This is a preparatory course covering the fundamentals of semiconductor devices as applied to electronic circuits. Through lecture and lab work, students will become familiar with basic and advanced semiconductor devices and electronic circuits with an emphasis on electronic troubleshooting. Formerly EE105 & EE106. Course offering: As needed. Prerequisite: EE104

Student Learning Outcomes (SLOs):

Upon successful completion of this course, students will be able to:

1. Design a power supply circuit.
2. Identify each part of a power supply system.
3. Calculate the voltage gain for a transistor amplifier circuit.

EE116 DIGITAL TECHNOLOGY (4)

This course provides an introduction to digital techniques, semiconductor devices for digital integrated circuits, Boolean Algebra, flip-flop registers, sequential logic circuits, counters, clocks, shift registers, combination logic circuits, digital design and applications. Course offering: As needed. Prerequisites: EE104, EE112

Student Learning Outcomes (SLOs):

Upon successful completion of this course, students will be able to:

1. Design a simple counter circuit.
2. Simplify logic circuits using k-map.
3. Identify different types of logic circuits.

EE211 IT ESSENTIALS I (4)

IT Essentials I presents an in-depth exposure to computer hardware and operating systems. Students learn the functionality of hardware and software components as well as suggested best practices in maintenance, and safety issues. Through hands-on activities in the lab, students learn how to assemble and configure a computer, as well as install the motherboard, floppy and hard drives, CD-ROM, and video cards. Students will install operating systems and software, and troubleshoot hardware and software problems. This course helps students prepare for CompTIA's A+ certification. Course offering: As needed

Student Learning Outcomes (SLOs):

Upon successful completion of this course, students will be able to:

1. Describe the internal components of a computer.
2. Assemble a computer system.
3. Install an Operating System.
4. Troubleshoot using system tools and diagnostic software.

EE215 IT ESSENTIALS II (3)

IT Essentials II helps students prepare for the CompITA A+ Practical Application exam, which builds on the CompTIA A+ Essentials knowledge and skills, with more of a hands-on orientation and scenarios in which troubleshooting and tools must be applied to resolve problems. Course offering: As needed. Prerequisite: EE211

Student Learning Outcomes (SLOs):

Upon successful completion of this course, students will be able to:

1. Upgrade laptop components based on customer needs.
2. Perform preventive maintenance and troubleshooting on components of a printer/scanner.
3. Install a network; upgrade components based on customer needs and perform preventive maintenance and advanced trouble shooting.

EE242 PRINCIPLES OF VOICE AND DATA CABLING (2)

This course is designed for students interested in the physical aspects of voice and data network cabling and installation. This course stresses documentation, design, installation, laboratory safety, as well as working effectively in group environments. Students will become familiar with cabling issues related to data and voice connectivity, media and transmission practices, and cabling customer support. This course provides an overview of cabling and networking industry standards as well as emerging cabling technologies. Course offering: As needed.

Student Learning Outcomes (SLOs):

Upon successful completion of this course, students will be able to:

1. Design basic network infrastructure systems.
2. Install, terminate, and test network cabling systems.
3. Define standards and codes pertaining to the IT field.
4. Pass the National Certification Exam (Data Cabling Installer Certification), sponsored by Electronics Technicians Association (ETA).

EE243 FIBER OPTICS INSTALLATION (3)

This course is designed for personnel who work with fiber optic cables or individuals who want a working knowledge of fiber optics. Students in this course will learn how to splice, terminate, and test fiber optics cables/systems. Course offering: As needed.

Student Learning Outcomes (SLOs):

Upon successful completion of this course, students will be able to:

1. Install, terminate, and splice fiber optic cables.
2. Troubleshoot and repair fiber optic cables.
3. Use test equipments for troubleshooting (light source & power meter, optical time domain, reflectometer, & visible light source).

EE265 COMPUTER NETWORKING I (4)

This basic networking course begins to prepare students for configuration of networks using routers, switches, and hubs. Students will learn network topologies, OSI model, IP addressing, subnetting, routing protocols, Local Area Network (LAN) design, and network management. Students will also perform extensive 30 hours lab work that simulates real-world networking. Course offering: As needed

Student Learning Outcomes (SLOs):

Upon successful completion of this course, students will be able to:

1. Recognize the devices and services that are used to support communications across an Internetwork.
2. Design, calculate, and apply subnet masks and addresses to fulfill given requirements.

EE266 COMPUTER NETWORKING II (4)

Computer (Cisco) Networking II starts with a brief LAN overview covered in Computer (CISCO) Networking I and continues to Wide Area Networks (WAN) Topics of Networking II include: Network layer, Cisco IOS (Internet Work Operating System) software user interface, display router configuration information, router start up and setup configuration, sources for Cisco IOS software, TCP/IP, configuring router interfaces with IP, and routing protocols (RIP and IGRP). Course offering: Every 8 Weeks, based on industry demand. Prerequisite: EE265

Student Learning Outcomes (SLOs):

Upon successful completion of this course, students will be able to:

1. Install, configure, and troubleshoot Cisco IOS devices for Internet and server connectivity.
2. Describe the Open systems Interconnect (OSI) model and the process of encapsulation.

EE267 COMPUTER NETWORKING III (4)

Computer Networking III provides a foundation in LAN design and implementation. This course will prepare you for the next step in Internetworking which is Wide Area Networks. Topics include Spanning Tree Protocol, Virtual LANs, an in depth look at Ethernet technology, configuring Cisco routers to support Novell networks, and designing access lists for security and traffic control. Course offering: As needed. Prerequisite: EE266

Student Learning Outcomes (SLOs):

Upon successful completion of this course, students will be able to:

1. Configure a switch with VLANs and inter-switch communication.
2. Implement access lists to permit or deny specified traffic.
3. Configure routing protocols on Cisco devices.

EE268 COMPUTER NETWORKING IV (4)

This covers the fundamentals of Wide Area Networking (WAN). Topics include common Wide Area Network technologies, WAN frame encapsulating formats, WAN link options, WAN design including core, distribution, and access layers, traffic patterns, server placement, and router configuration: PPP, ISDN, and frame relay. Course offering: As needed. Prerequisite: EE267

Student Learning Outcomes (SLOs):

Upon successful completion of this course, students will be able to:

1. Design a simple Internetwork using Cisco technology.
2. Design an IP addressing scheme to meet LAN requirements.
3. Install and configure a prototype Internetwork.

EE271 ADVANCED COMPUTER NETWORKING I (4)

This course is the first course in the Cisco Certified Networking Professional (CCNP) curriculum. This course will cover the configuration of Cisco routers for operation in large or growing muliprotocol Internet works. This course includes lectures and labs that focus primarily on scalable technologies and the Cisco IOS software features that are most useful in building large or growing Internet works. These features that are most useful in building large or growing Internet works. These features include scalable routing protocols such as Open Shortest Path First (OSPF), Enhanced Interior Gateway Routing Protocol (EIGRP), Intermediate System to Intermediate System (IS-IS), Border Gateway Protocol (BGP), Variable Length Subnet Mask (VLSM),

Classless Inter Domain Routing (CIDR), route redistribution, and route summarization. Course offering: Fall only. Prerequisites: EE268 or CCNA Certification

Student Learning Outcomes (SLOs):

Upon successful completion of this course, students will be able to:

1. Implement EIGRP and OSPF in an enterprise network.
2. Implement BGP to allow an enterprise network to connect to an ISP.
3. Implement IPv6 in an enterprise network.

EE275 ADVANCED COMPUTER NETWORKING III (4)

CCNP 3: Multilayer Switching is the third of four courses leading to the Cisco Certified Network Professional (CCNP) designation. CCNP 3 introduces students about the deployment of the state-of the-art campus LANs. The course focuses on the selection and implementation of the appropriate Cisco IOS services to build reliable scalable multilayer-switched LANs. Students will develop skills with VLANs, VTP, STP, inter-VLAN routing, multiplayer switching, redundancy, Cisco AVVID solutions, QoS issues, campus LAN security, and emerging transparent LAN services. This hands-on, lab oriented course stresses the design, implementation, operation, and troubleshooting of switched and routed environments. Course offering: As needed. Prerequistes: EE268 or CCNA certification

Student Learning Outcomes (SLOs):

Upon successful completion of this course, students will be able to:

1. Implement, monitor, and maintain switching in an enterprise campus network.
2. Implement VLANs in campus networks.
3. Configure and optimize the Hot Standby Routing Protocol (HSRP) on switches.

EE280 NETWORK SECURITY I (4)

Cisco Certified Network Associate (CCNA) Security equips students with the knowledge and skills needed to prepare for entry-level security specialist careers. CCNA Security is a blended curriculum with both online and classroom learning. The course covers theory and practice of computer security, focusing in particular on the security aspects of the web and Internet. It surveys cryptographic tools used to provide security, such as shared key encryption (Data Encryption Standard (DES), Triple Data Encryption Standard (3DES), RC-4/5/6, etc.); public key encryption, key exchange, and digital signature (Diffie-Hellmann, Rivest, Shamir and Adleman (RSA), Digital Signature Standard (DSS), etc.). Course offering: As needed

Student Learning Outcomes (SLOs):

Upon successful completion of this course, students will be able to:

1. Secure network device access.
2. Mitigate threats to networks using access-lists (ACLs).
3. Implement the Cisco Internet Operating System (IOS) firewall feature set.

EE283 NETWORK SECURITY + (3)

This course is targeted toward an Information Technology (IT) professional with the recommendation that he/she has networking and administrative skills in Windows-based TCP/IP networks and familiarity with other operating systems, such as NetWare, Macintosh, UNIX/Linux, and OS/2, who wants to: further a career in IT by acquiring a foundational knowledge of security topics; prepare for the CompTIA Security+ Certification examination; or use Security+ as the foundation for advanced security certifications or career roles. Course offering: As needed

Student Learning Outcomes (SLOs):

Upon successful completion of this course, students will be able to:

1. Identify fundamental concepts of computer security.
2. Identify security threats.
3. Secure network communications.
4. Monitor the security infrastructure.

EM - ELECTRO MECHANICAL

EM112 NATIONAL ELECTRICAL CODE (3)

This course provides knowledge and understanding of the National Electrical Code governing the installation of residential and commercial electrical systems. Formerly EM092. Course offering: As needed. Prerequisite: EM111

Student Learning Outcomes (SLOs):

Upon successful completion of this course, students will be able to:

1. Correctly reference information using the National Electric Code in various electrical appliances.
2. Identify faulty installations based on the National Electric Code.
3. Select the proper codes to apply to residential or commercial applications.

EMS - EMERGENCY MEDICAL SERVICE

EMS103 EMERGENCY MEDICAL TECHNICIAN (EMT) - BASIC (7-8)

This course is designed for ambulance service members and others who need to be trained to the level of EMT. Students will learn how to provide emergency care to victims of accidents and illness, recognize the nature and seriousness of the patient's condition, assess the patient's requirements for emergency care, and administer appropriate pre-hospital care to stabilize the patient's condition. Upon completion of this course students will be eligible to test for the National Registry of EMT (NREMT), national certifying examination. Formerly CJ103. Course offering: As needed. Prerequisite: HL 131 & EN 100R Minimum age 18 years old. Police, Court & Drug clearance will be needed 30 days prior to clinicals. Physical Exam (no older than 6 months prior to clinicals). Drivers License.

Student Learning Outcomes (SLOs):

Upon successful completion of this course, students will be able to:

1. Describe all types of emergencies.
2. Demonstrate skills needed to provide emergency care to victims.
3. Determine the extent of a patient’s condition and assess requirements for care.

EMS109 EMERGENCY MEDICAL TECHNICIAN - REFRESHER (3)

This course is a refresher for qualified EMT’s who must update their training and must re-certify every two (2) years. The course involves review and updating of the materials presented in EMS 103. Formerly CJ109. Course offering: As needed. Prerequisite: 18 years old, EMS103

Student Learning Outcomes (SLOs):

Upon successful completion of this course, students will be able to:

1. Explain various types of emergencies.
2. Demonstrate knowledge and skills needed to care for victims in emergencies.
3. Demonstrate most current practices of Emergency Medical Technicians.

EMS170 EMERGENCY MEDICAL TECHNICIAN - INTERMEDIATE I (7)

This course is the first of two modules of EMT-Intermediate for EMT’s who wish to increase their knowledge and deliver a more sophisticated level of emergency medical care in the advanced life support (ALS) area. The course is designed for ambulance service members and others who wish to be trained to this advance level of EMT. Can be repeated for credit. Formerly CJ170. Course offering: CJ Academy only. Prerequisite: 18 years old, Valid EMT-Basic Certification from Guam or the NREMT

Student Learning Outcomes (SLOs):

Upon successful completion of this course, students will be able to:

1. Explain the roles and responsibilities of an Intermediate Emergency Medical Technician.
2. Deliver an advanced level of emergency care in the ALS area.
3. Demonstrate knowledge and skills needed of an EMT at an intermediate level.

EMS175 EMERGENCY MEDICAL TECHNICIAN INTERMEDIATE II (7)

This course is the second of two modules of EMT Intermediate for EMT’s who wish to increase their knowledge and deliver a more sophisticated level of emergency medical care in the advanced life support (ALS) area. The course is designed for ambulance service members and others who wish to be trained to this advance level of EMT. Formerly CJ175. Course offering: As needed. Prerequisite: 18 years old

Student Learning Outcomes (SLOs):

Upon successful completion of this course, students will be able to:

1. Explain various types of emergencies and care needed at an advanced level.
2. Deliver an advanced level of emergency care in the ALS area.
3. Demonstrate knowledge and skills needed of an EMT at an advanced level.

EMS176 EMERGENCY MEDICAL TECHNICIAN - INTERMEDIATE REVIEW (3)

This course is designed to maintain EMT-Intermediate's proficiency and certification. Students will review essential components of the National Standard Curriculum for EMT Intermediates and will also be presented with additional EMT-Intermediate knowledge and skills pertaining specifically to Guam's EMS system. Course offering: As needed. Prerequisite: 18 years old, Valid EMT-Intermediate certification from either Guam or the NREMT, EMS175

Student Learning Outcomes (SLOs):

Upon successful completion of this course, students will be able to:

1. Demonstrate an understanding of the National Standard Curriculum for EMT Intermediates.
2. Demonstrate knowledge and skills needed for the local EMS system.
3. Acquire nationally recognized EMT certification.

EN - ENGLISH

EN066 READING WORKSHOP (3)

This course is designed to develop and improve the student's current reading skill level as determined by the Comprehensive Adult Student Assessment System (CASAS) pre-test reading scale score for Adult Basic Education. This course provides adult students with an opportunity to develop and improve their reading skills. Relevant individualized instruction provides reading activities to enable students to become enpowered, competent, critical, and refelctive in their reading. At the end of each semester, students enrolled in this course are required to complete the post-test component of the CASAS for Adult Basic Education. Student scoring 246 or above in the CASAS Reading scale assessment will be considered to have achieved the Student learning Outcomes (SLOs) for the course and can be awarded a CR grade for the course. Course offering: As needed

Student Learning Outcomes (SLOs):

Upon successful completion of this course, students will be able to:

1. Demonstrate an increase in reading skills.
2. Demonstrate an understanding of reading as a process.
3. Apply reading skills in a lifelong-learning context.

EN067 WRITING WORKSHOP (3)

EN067-Writing Workshop will introduce students to the writing process. This process includes a series of ongoing, interconnected writing skills and activities involving pre-writing, writing, conferences, revision, editing, and finalization of writing pieces. Mini-lessons, individualized guided writing, instructor-student conferencing, student-student conferencing, and group sharing will facilitate a better understanding and application of the writing process. Course offering: As needed

Student Learning Outcomes (SLOs):

Upon successful completion of this course, students will be able to:

1. Demonstrate that writing is a progressive activity.
2. Utilize the components of the writing process to improve individualized skill levels.
3. Apply basic writing skills in organizing an effective message in a variety of individual, group, organizational, and related social settings.

EN081 LITERATURE SURVEY (3)

This course is designed to familiarize the student with a selection of writings by noted authors of the shorter genre of Literature: the short story, poetry, the essay, and short dramatic selections. Areas of instruction include the structure of and literary elements contained in these genre, reading comprehension, vocabulary development, and Literature-based composition. Course offering: As needed.

Student Learning Outcomes (SLOs):

Upon successful completion of this course, students will be able to:

1. Differentiate between literary forms to include a short story, play, lyric poem, personal narrative, and essay.
2. Identify plot, character, point of view, setting, mood, irony and satire, and theme.
3. Demonstrate understanding of themes in literature.

EN091 FUNDAMENTALS OF COMMUNICATION (3)

This course is a study of communication and speech, and introduces students to the ongoing, everchanging process of communication. This course will focus on the basic channels of communication, the principles of interpersonal communication, communication within groups, and the process of preparing and delivering speech presentations. Course offering: As needed

Student Learning Outcomes (SLOs):

Upon successful completion of this course, students will be able to:

1. Apply oral communication skills and participate in the communication process.
2. Demonstrate effective listening and nonverbal skills.
3. Develop and present speeches for a variety of purposes.

EN100B FUNDAMENTALS OF ENGLISH-BASIC (4)

This course is designed to meet the needs of those students scoring between 15-37 on the reading section of the placement test who need developmental work in basic English skills. (main emphasis is on reading) prior to entry into Fundamentals of English/Reading (EN100R). Student will work on an individualized basis with the assistance of instructor to increase and improve reading ability. Course offering: As needed. Prequisite: Score between 15-37 on the currently utilized College placement test (COMPASS) .

Student Learning Outcomes (SLOs):

Upon successful completion of this course, students will be able to:

1. Demonstrate growth in vocabulary level
2. Improve in comprehension level.
3. Show a more positive attitude toward reading.
4. Understand the basics of the “reading process.”

EN100R FUNDAMENTALS OF ENGLISH/READING (3)

This course is designed to meet the needs of those students requiring additional reading skill development. Students scoring 38 - 67 on the COMPASS placement test are required to enroll in this course, EN100R. If student scores between 38-47, student is required to enroll in this course only. If student scores between 48-67 on the COMPASS placement test, student may choose to enroll in both this course (EN100R) and EN100W. It is the recommendation of the English Department that student first completes the reading requirement. Course offering: As needed. Prerequisite: EN100B

Student Learning Outcomes (SLOs):

Upon successful completion of this course, students will be able to:

1. Demonstrate growth in vocabulary and comprehension levels.
2. Demonstrate an improved attitude toward reading.
3. Demonstrate a clear understanding and extensive practice of the “reading process”.

EN100W FUNDAMENTALS OF ENGLISH-WRITING (3)

Students work toward improving their writing skills. Instruction is individualized to meet each student's level of ability. EN100W focuses on writing as a process, conferencing with peers and the instructor, and using critical thinking skills to improve written work.

Students with a composition score below 4 from a prior EN100W course are required to retake EN100W until the required composition score of "Pass" is achieved. Students may enroll in both EN100R and En100W if they earn a score of 62-67 on the reading component of the COMPASS placement test. Students are placed into EN100W if they received a grade of "P" in EN100R-Fund. Of English/Reading, or are reading at the 9.0 or above grade level based on the Nelson-Denny reading test and currently enrolled in EN100R, or earn a score of 68-100 on the reading component, 0-100 on the writing component, and 0-5 on the essay component of the COMPASS placement test. Course offering: As needed.

Prerequisites: Students with a composition score below 4 from a prior EN100W course are required to retake EN100W until the required composition score of "Pass" is achieved. Students may enroll in both EN100R and EN100W if they earn a score of 62-67 on the reading component of the COMPASS placement test. Students are placed into EN100W if they received a grade of "P" in EN100R-Fund. Of English/Reading, or are reading at the 9.0 or above grade level based on the Nelson-Denny reading test and currently enrolled in EN100R, or earn a score of 68-100 on the reading component, 0-100 on the writing component, and 0-5 on the essay component of the COMPASS placement test.

Student Learning Outcomes (SLOs):

Upon successful completion of this course, students will be able to:

1. Demonstrate an improvement in their overall writing abilities.
2. Submit prewriting drafts, outlines, rough drafts, revisions, and final drafts as evidence of using the writing process.
3. Utilize a word processing program to facilitate writing.

EN110 FRESHMAN COMPOSITION (3)

Emphasizing critical reading, writing, and thinking, this course focuses on communicating clearly and effectively, using standard written English in an academic setting, as well as in other communities. Students will practice exploring ideas, conveying information, and adopting a persuasive stance in writing. They will demonstrate logical reasoning, adequate factual support,

clarity, organization, and appropriate language choices in their writing. Course offering: As needed. Prerequisite: Placement into EN110 or successful passing of EN100R, EN100W

Student Learning Outcomes (SLOs):

Upon successful completion of this course, students will be able to:

1. Employ the writing process (invention, drafting, revising) and writing strategies.
2. Demonstrate understanding of the connection between reading and writing.
3. Identify and apply the connection between an author's purpose, audience, and strategies.
4. Compose essays using prose patterns in narration and description, exposition, cause and effect, and argument and persuasion.
5. Identify critical thinking skills.

EN111 WRITING FOR RESEARCH (3)

This course is a continuation of EN 110. Emphasis is placed on information, meticulous observance of format, and clarity and effectiveness in written English. Students will develop critical reading skills and learn the techniques of both primary and secondary research. Course offering: Fall & Spring semester every year. Prerequisite: Students must complete EN 110 with a "C" or better.

Student Learning Outcomes (SLOs):

Upon successful completion of this course, students will be able to:

1. Generate a focused and mature thesis.
2. Engage in primary and secondary research.
3. Report, analyze, argue, paraphrase and summarize.
4. Coherently synthesize information from multiple sources.
5. Evaluate sources intelligently and apply proper documentation.

EN125 INTRODUCTION TO SPEECH (3)

This course surveys speech communication theories, concepts and skills existing in interpersonal, intercultural, small group, and organizational interactions, as well as oral public presentations. This course offers a combination of humanistic and pragmatic approaches to understanding and evaluating communication. A significant portion of the course covers the preparation and presentation of oral assignments (speeches). Course offering: As needed. Prerequisite: Placement into EN110 or successful passing of EN100R/W.

Student Learning Outcomes (SLOs):

Upon successful completion of this course, students will be able to:

1. Demonstrate listening and information gathering skills.
2. Explain the differences in cultural communication patterns.
3. Apply oral communication skills through actual applications.
4. Develop and deliver speeches for a variety of purposes.

EN194 TECHNICAL REPORT WRITING (3)

This course prepares students to write for business, industry, and professions. Students will engage in the writing and speaking process and will develop examples of technical "products" including letters, memorandums, formal reports, interviews, and oral presentations. Course offering: As needed. Prerequisite: EN110

Student Learning Outcomes (SLOs):

Upon successful completion of this course, students will be able to:

1. Demonstrate an understanding of the functions and the features of the written work for technical communication.
2. Apply the language skills, style, and organization needed for competent technical writing.
3. Demonstate an understanding and application of the different forms of technical writing.

EN210 INTRODUCTION TO LITERATURE (3)

This course is designed to familiarize students with the major divisions of literature: fiction, poetry, and drama. Students will develop an understanding of and appreciation for literary elements. Course offering: As needed. Prerequisite: Students must complete EN 110 Freshman Composition with a grade of "C" or better.

Student Learning Outcomes (SLOs):

Upon successful completion of this course, students will be able to:

1. Demonstrate an appreciation for literature.
2. Demonstrate an understanding of vocabulary for discussing fiction, poetry, and drama.
3. Demonstrate an ability to analyze texts critically.

FS - FIRE SCIENCE TECHNOLOGY

FS100 INTRODUCTION TO FIRE PROTECTION (3)

This course covers the philosophy and history of fire protection; history of loss of life and property by fire; review of municipal fire defenses; study of the organization and function of federal, state, county and private fire protection agencies, survey of professional fire protection career opportunities. This course is designed for career public safety officers and recruits. Course offering: Fire Academy only. Prerequisite: Instructor permission is required

Student Learning Outcomes (SLOs):

Upon successful completion of this course, students will be able to:

1. Identify career opportunities in the fire science field.
2. Research and examine local, state and federal fire protection agencies.
3. Discuss the philosophy and history of fire protection.

FS101 INTRODUCTION TO FIRE SUPPRESSION (3)

This course is a study of techniques of effective fire prevention to include fire hazards and causes; judging fire load, building construction, inspection techniques; storage of flammable and combustible liquids and hazardous materials security. This course is designed for career public safety officers and recruits. Course offering: Fire Academy only. Prerequisite: Instructor permission is required.

Student Learning Outcomes (SLOs):

Upon successful completion of this course, students will be able to:

1. Explain strategies for effective fire protection.
2. Identify inspection techniques used in fire protection careers.
3. Identify various types of building structures and explain the importance of basic fire resistance requirements.

FS102 FIRE SERVICE ON GUAM (3)

A study of the topographical layout of Guam and the techniques and methods used in grassland fire fighting will be explored. This course is designed for career public safety officers and recruits. Course offering: Fire Academy only. Prerequisite: Instructor permission is required

Student Learning Outcomes (SLOs):

Upon successful completion of this course, students will be able to:

1. Recognize and identify key features of the topographical layout of Guam.
2. Integrate knowledge of the topographical layout of Guam to gain maximum advantage when fire fighting.
3. Properly apply the techniques and methods used for grassland fire fighting.

FS103 FIRE OPERATIONS I (6)

Course emphasis is on understanding the principles and application/operation/procedures of fire behavior, fire extinguishers, fire extinguishments, tools and equipment that a firefighter must use. This course is designed for career public safety officers and recruits. Course offering: Fire Academy only. Prerequisite: Instructor permission is required, FS100, FS101

Student Learning Outcomes (SLOs):

Upon successful completion of this course, students will be able to:

1. Describe and demonstrate the use, application, care and maintenance of personal protective equipment (PPE).
2. Understand the concepts & techniques of various fire ground operations to include rescue, ventilation, and forcible entry.
3. Identify and demonstrate the use and application of fire service tools and equipment to include fire service tools, ropes and knots, and various ground ladders.

FS104 FIRE OPERATIONS II (3)

The focus of this course is on the practical application of the theories, techniques and methods of basic fire fighting learned in FS103. This course is designed for career public safety officers and recruits. Course offering: Fire Academy only. Prerequisites: FS103 and permission from the instructor

Student Learning Outcomes (SLOs):

Upon successful completion of this course, students will be able to:

1. Demonstrate the proper use and care of personal protective equipment.
2. Understand the safety requirements of fire ground operations and training.
3. Demonstrate the use of fire hose lays, streams, and water supply to include fire apparatus implementation.

4. Demonstrate the use of fire service tools and equipment to include fire ground ladders.

FS105 FIRE PREVENTION (3)

A study of techniques of effective fire prevention to include fire hazards and causes; judging fire load, building construction; inspection techniques; storage of flammable and combustible liquids and hazardous materials security. This course is designed for career public safety officers and recruits. Course offering: Fire Academy only. Prerequisite: Instructor permission is required

Student Learning Outcomes (SLOs):

Upon successful completion of this course, students will be able to:

1. Explain the authority to inspect, responsibilities of the fire inspector, the types of organizational structures that may affect inspection activities and public education.
2. List the steps involved to prepare for inspection and inspection procedures and the purpose of follow up inspections.
3. List and explain the different types of occupancy classifications and the different components of the means of egress.
4. List and describe the different types of fire protection systems, and list the components of an effective water distribution system.

FS107 REPORT WRITING FOR THE FIRE SERVICE (3)

Emphasis on principle and techniques of report writing; methods of writing the basic who, what, when, where, why and how; and procedures of gathering information and developing various types of reports. Study is designed to produce proficiency in report writing and to reinforce and expand skills previously acquired. Course offering: Fire Academy only. Prerequisite: Instructor permission is required

Student Learning Outcomes (SLOs):

Upon successful completion of this course, students will be able to:

1. Understand the importance of accurate report writing and record keeping.
2. Understand the standards and formats of basic fire service report forms.
3. Properly complete required reports relative to fire and other emergency incidents.
4. Develop administrative reports, memorandums, and correspondence related to the fire service organization.

HI - HISTORY

HI121 HISTORY OF WORLD CIVILIZATION I (3)

Students will explore the most important aspects of world civilizations from pre-historic time to 1500 A.D. from the Fertile Crescent to the medieval feudal states. Students will study the birth of ancient peoples and societies. Course offering: As needed

Student Learning Outcomes (SLOs):

Upon successful completion of this course, students will be able to:

1. Develop an understanding of the basic principles and theories involved with world civilizations.
2. Explain the development and evolution of ancient people and societies.
3. Develop an appreciation of world civilizations from pre-historic to 1500 A.D. from the Fertile Crescent to the medieval feudal states.

HI122 HISTORY OF WORLD CIVILIZATION II (3)

The course plots civilizations from the 1500's to the modern era. Students will examine a variety of historic experiences, discoveries, and inventions as well as the cultural, political, and economic forces that have shaped modern society. Course offering: As needed

Student Learning Outcomes (SLOs):

Upon successful completion of this course, students will be able to:

1. Develop an understanding of the basic principles and theories involved with world civilizations.
2. Apply principles and theories to major events related to world civilizations.
3. Develop an appreciation of world civilizations from the 1500's to modern day period.

HI176 GUAM HISTORY (3)

Guam History covers the ancient settlement period prior to Ferdinand Magellan's arrival in 1521 up to the modern United States military buildup on Guam. The Spanish, Japanese and United States administration periods and development of self-rule will be discussed and analyzed. This course is designed to inform those interested about the diverse influences that have contributed to the culture and history of Guam. Course offering: As needed

Student Learning Outcomes (SLOs):

Upon successful completion of this course, students will be able to:

1. Demonstrate knowledge of Guam history.
2. Respect Chamoru culture and values.
3. Appreciate the qualities that make Guam unique.

HL - ALLIED HEALTH

HL120 MEDICAL TERMINOLOGY (2)

This course provides students with the elements of medical terminology. The study includes origins of medical terminology, word building system, specific terminology for all systems of the human body, and terminology related or applicable to specialty areas in medical and selected paramedical fields. Course offering: Fall & Spring only

Student Learning Outcomes (SLOs):

Upon successful completion of this course, students will be able to:

1. Demonstrate knowledge of medical terms.
2. Define 350 medical words and elements.
3. Define medical abbreviations and symbols.

HL130 FIRST AID & SAFETY (1)

This course provides students with the basic knowledge and skills necessary in an emergency to call for assistance and provide standard first aid care, including CPR. This course also includes information on the prevention of injury and illness with a focus on personal safety. Course offering: Fall & Spring only

Student Learning Outcomes (SLOs):

Upon successful completion of this course, students will be able to:

1. Demonstrate knowledge and skills of first aid and safety including cardiopulmonary resuscitation (CPR).
2. Explain the Chain of Survival according to the American Red Cross.

HL131 BASIC LIFE SUPPORT FOR HEALTH CARE PROVIDERS (1)

This course is designed for healthcare professionals, including medical assistants, nursing assistants, practical nurses, and a wide variety of persons working in the healthcare industry. Basic Life Support for Healthcare Providers provide students with the knowledge and skills necessary in an emergency such as rescue breathing and cardiopulmonary resuscitations (CPR). Course offering: As needed

Student Learning Outcomes (SLOs):

Upon successful completion of this course, students will be able to:

1. Demonstrate how to perform bag mask ventilation.
2. Demonstrate knowledge and skills of cardiopulmonary resuscitation for adults.
3. Demonstrate knowledge and skills of cardiopulmonary resuscitation for infants.

HL140 INTRODUCTION TO CLINICAL LABORATORY (2)

This course provides an introduction to the field of laboratory science, including the development of basic and moderate complexity laboratory skills and phlebotomy technique. Course offering: Spring only. Prerequisites: HL120, HL130, MS101, SI130

Student Learning Outcomes (SLOs):

Upon successful completion of this course, students will be able to:

1. Demonstrate use of basic to moderate lab equipment.
2. Demonstrate competence in obtaining specimens of blood and other body fluids.
3. Demonstrate ability to interact with patients, hospital, and physicians and lab personnel.
4. Describe quality control in the clinical lab.

HL150 STUDY OF DISEASES (3)

This course provides the basic concepts and characteristics of disease processes, which include disease description, etiology, signs and symptoms, diagnosis, treatment, prognosis, and prevention and terminology pertaining to injuries and disease process. Formerly HL152. Course offering: As needed. Prerequisites: EN110, HL120, SI130

Student Learning Outcomes (SLOs):

Upon successful completion of this course, students will be able to:

1. Identify the etiology of the more commonly encountered diseases and identify their methods of prevention, control and treatment.
2. Identify signs and symptoms of common diseases.
3. Demonstrate proficiency in defining medical terminology as related to diseases.

HL160 INTRODUCTION TO PHARMACOLOGY (1)

This course provides students with the scope of pharmacology including definitions, classifications, common drugs within each classification, drugs, commonly used in prevention, diagnosis, and treatment of disease (action, side effects, related responsibilities), major factors which affect drug action, abbreviations, and symbols related to drug administration, drug standards and legislation, and references for drug information. Course offering: Summer only. Prerequisite: SI130, HL150. Corequisites: HL161, HL162

Student Learning Outcomes (SLOs):

Upon successful completion of this course, students will be able to:

1. Identify major drug classifications and common drugs within the group.
2. Identify drugs commonly used in the prevention, diagnosis and treatment and treatment of diseases.
3. Recognize major factors affecting drug actions.
4. Identify standards of legislations as they apply to drugs and their administration.

HL161 PHARMACOLOGICAL TREATMENT OF DISEASE (1)

This course is a survey of medications commonly used in the prevention, diagnosis, and treatment of diseases, with discussion of pharmacological action, side effects and related responsibilities. Course offering: Summer only. Prerequisites: HL150, SI130

Student Learning Outcomes (SLOs):

Upon successful completion of this course, students will be able to:

1. Identify specification, side effects, and responsibilities related to use of all pharmaceuticals studied.
2. Demonstrate proficiency in using the Physician's Desk Reference (PDR).

HL162 ADMINISTRATION OF MEDICATIONS (1)

This course is an application of basic concepts required for medication administration: choice of equipment, proper technique, hazards and complications, patient care, satisfactory performance of intramuscular, subcutaneous, and intradermal injections, preparation and administration of oral medication, immunizations. Course offering: Summer only. Prerequisites: HL150, SI130. Corequisites: HL160, HL161

Student Learning Outcomes (SLOs):

Upon successful completion of this course, students will be able to:

1. Demonstrate ability to solve conversion problems within the household, apothecary and metric system.
2. Demonstrate ability to interpret abbreviations and symbols accurately as they relate to drug administration.
3. Apply the "Rights of Medication Administration".
4. Demonstrate correct administration enteral, parenteral and cutaneous drugs in simulated lab situations.

HL202 NUTRITION (3)

This course provides students with the basics of nutrition, with emphasis on food preparation, food safety, and recipe modification to meet specific body needs. The course also covers the relationship between nutrition and health and the importance of combining good diet with regular exercise in order to promote healthy lifestyles. Formerly HS202. Course offering: As needed

Student Learning Outcomes (SLOs):

Upon successful completion of this course, students will be able to:

1. Identify the six functions of nutrients.
2. Apply the food pyramid to effectively maintain a healthy lifestyle.
3. Recommend a dietary meal plan that provides a corrective treatment to common illnesses

HL252 PATHOPHYSIOLOGY (3)

This course is a clinical case study approach to the study of underlying principles, manifestations and clinical implications of disease processes and alterations of function in body systems in all groups. Course offering: Spring only. Prerequisites: HL120, SI130

Student Learning Outcomes (SLOs):

Upon successful completion of this course, students will be able to:

1. Identify the basic concepts of pathophysiology.
2. Discuss clinical implications of the disease process and alterations in body function and systems across the lifespan.

HS - HOSPITALITY

HS140 MENU PLANNING (3)

This course is designed to give students an understanding of menu planning, its qualities and importance in a food operation. Students will learn how to write, plan, and adjust menus for a variety of food service operations as well as different meals. Course offering: Spring only

Student Learning Outcomes (SLOs):

Upon successful completion of this course, students will be able to:

1. Demonstrate positive work ethic required of them in the field of Culinary Arts.
2. Demonstrate knowledge in culinary terms, methods, and application.
3. Interpret the fundamentals of food service as it applies to the work of a Culinarian.

HS145 CULINARY MATH (3)

This course provides the student with the understanding of the basic math concepts required of being a successful professional in the food service industry. This course is reserved exclusively for declared Associate of Arts in Culinary Arts students and Apprentices and meets the General Education Math requirement for the degree. Course offering: As needed. Prerequisite: MA095

Student Learning Outcomes (SLOs):

Upon successful completion of this course, students will be able to:

4. Convert units of measure of volume or weight.
5. Calculate yield percentages for food recipes.
6. Calculate kitchen ratios.
7. Calculate various costs including, As Purchased Cost Vs Edible Portion Cost.

HS150 WELCOME TO HOSPITALITY (3)

This course explores the fascinating worlds of lodging, foodservice, meeting planning, travel and tourism, and the related businesses that make up the hospitality and tourism industry. This course identifies the latest trends found throughout the industry, and addresses what the industry is doing to adapt to modern technology. Course offering: Fall and Spring only

Student Learning Outcomes (SLOs):

Upon successful completion of this course, students will be able to:

8. Describe all facets and segments of tourism and hospitality industry.
9. Identify career opportunities in the tourism and hospitality industry.
10. Explain how tourism and hospitality segments work together to achieve objectives and goals

HS152 CUSTOMER SERVICE (3)

This course is designed to examine, challenge and refine the principles of guest service management in various service organizations. Students will gain an understanding of "service products" and apply the tools to deliver these services and use these concepts in their own work experiences. Course offering: As needed

Student Learning Outcomes (SLOs):

Upon successful completion of this course, students will be able to:

1. Demonstrate the accepted protocol for answering the telephone within 10 seconds; 1) Greet the caller b) Name the location c) Identify self d) Offer help.
2. Assess the customer's wants and needs through the use of demographics and other database information.
3. Apply the steps to take a negative customer encounter and turn it into a positive customer service experience using a checklist a minimum of three (3) times.

HS153 DESTINATION GEOGRAPHY (3)

This course is intended to introduce World Geography to students to help develop research skills and understand the reason why travel destinations are selected. The course will highlight regions and/or countries. Formerly HS143. Course offering: As needed

Student Learning Outcomes (SLOs):

Upon successful completion of this course, students will be able to:

1. Demonstrate knowledge in geographical terminology, landforms, weather, countries, and destinations, as it relates to the tourism industry with the use of industry accepted methods.
2. Demonstrate knowledge in researching, planning, and selling a destination by creating a travel itinerary with the required components.
3. Create and present a destination with a wide range of knowledge spotlighting the travel and tour activities found at that location.

HS155 BASIC HOTEL & RESTAURANT ACCOUNTING (3)

This course is designed to prepare students to utilize the financial reporting procedures of Hotel and Restaurant Accounting. Students who successfully complete this course will be able to prepare financial reports and follow the bookkeeping practices of the hospitality industry. Course offering: Spring only

Student Learning Outcomes (SLOs):

Upon successful completion of this course, students will be able to:

1. Describe the accounting process.
2. Define major classifications of accounts and the general ledger.
3. Read and analyze financial statements.
4. Distinguish the differences in accounting procedures of the various activities within the hospitality industry.

HS158 INTRO TO MEETINGS, INCENTIVES, CONFERENCES, AND EXHIBITIONS (MICE) (3)

This course provides a broad overview of the Meetings, Incentives, Conferences, and Exhibitions (MICE) segment of the travel, tourism and hospitality industry. The course will cover a wide range of topics that include the basics in meeting planning, event organizing, and conference and exhibition set up. Course offering: Spring only

Student Learning Outcomes (SLOs):

Upon successful completion of this course, students will be able to:

1. Demonstrate knowledge of how to plan a meeting, incentive, convention, or exhibition.
2. Demonstrate basic skills and knowledge in the successful planning of a MICE.
3. Explain career opportunities within the MICE industry.

HS160 HOSPITALITY SUPERVISION (3)

This course provides hospitality students with proven ways to get maximum results by directing and leading. They will be prepared to juggle the expectations of management, guests, employees, and governmental agencies. In addition, students will be able to develop creative strategies for effectively managing change and resolve conflicts. Course offering: Fall and Spring only. Prerequisite: HS150 or Instructor's Permission

Student Learning Outcomes (SLOs):

Upon successful completion of this course, students will be able to:

1. Identify characteristics of a successful supervisor, and describe the general functions of a supervisor.
2. Identify and describe methods used to ensure high quality and productivity.
3. Explain workplace safety and health problems, including their benefit and the supervisor's role in them.
4. Explain how supervisors can initiate conflict resolution, respond to a conflict, and mediate conflict resolution.
5. Propose feasible strategies to manage a hospitality department efficiently and effectively.

HS203A FOOD SAFETY & SANITATION (SERVESAFE®) (1)

This course provides the students with the knowledge and skills to obtain the National Restaurant Association Education Foundation, ServSafe® Food Protection Manager Certification. Course offering: As needed

Student Learning Outcomes (SLOs):

Upon successful completion of this course, students will be able to:

1. Identify food that is most likely to become unsafe, known as temperature control for safety (TCS) foods.
2. Identify the factors that affect the growth of food-borne bacteria in TCS foods.
3. Demonstrate proper hygienic procedures or processes that foodservice employees use to prevent the spread of food borne illness and cross contamination of food.
4. Identify how active managerial control can impact food safety.

HS203B FOOD SAFETY & SANITATION (HACCP) (2)

This course provides students with the knowledge and skills, through "hands-on" experience to develop and implement a Sanitation Risk Management (SRM) Program using the Hazard Analysis Critical Control Point (HACCP) method. Course offering: As needed. Prerequisite: Completion of HS203A

Student Learning Outcomes (SLOs):

Upon successful completion of this course, students will be able to:

1. Identify the benefits of a food safety risk management program.
2. Explain why the temperature danger zone (TDZ) is important to food safety.
3. Identify the seven HACCP Principles and ten Critical Control Points.
4. Develop a SRM using the HACCP method.

HS206 PRINCIPLES OF MIXOLOGY AND BEVERAGE MANAGEMENT (3)

Students will acquire knowledge of the history of alcoholic and non-alcoholic beverages, beer, wines, and spirits that have made the beverage industry a popular field within Food and Beverage operations. Applied hands-on tasks will allow the student to lean effective and efficient mixology techniques and management procedures. Course offering: As needed

Student Learning Outcomes (SLOs):

Upon successful completion of this course, students will be able to:

1. Describe and evaluate the effectiveness of front office (a) procedures, (b) operations, (c) human resource management, and (d) management.
2. Explain the history of popular beverages.
3. Demonstrate effective mixology techniques.

HS208 MANAGING FOOD & BEVERAGE SERVICE (4)

The purpose of this course is to prepare the students with the practical attitudes, knowledge, and skills to become effective and successful employees, supervisors and managers in food and beverage operations. The emphasis will be on essentials of good table service, service skills development, styles and specialized forms of service, day-to-day service operation management, and standard operating procedure manual development, training program and leadership skills development. Course offering: Fall & Spring only. Prerequisite: HS150

Student Learning Outcomes (SLOs):

Upon successful completion of this course, students will be able to:

1. Describe practical attitudes, knowledge and skills needed to become efficient and effective food and beverage employers, supervisors and managers.
2. Demonstrate knowledge and skills in providing various styles and specialized forms of service, and identify when these styles and forms of service can be applied, and develop an appropriate sequence of service for various food and beverage establishments.
3. Identify causes, assess potential solutions, and formulate a plan of action to address all negative "moments of truth" encountered by guests.
4. Evaluate if a food and beverage establishment's standard operating procedure is properly implemented and managed.
5. Apply "job instruction training" method to prepare employee training program, identify criteria that management use to validate training activities, and list measurement and evaluation tools and explain how they are used.

HS211 FRONT OFFICE MANAGEMENT (3)

This course presents a systematic approach to front office procedures by detailing the flow of business through a hotel, from the reservations process to checkout and settlement. This course also examines the various elements of effective front office management, paying particular attention to the planning and evaluation of front office operations and to human resources management. Front office procedures and management are placed within the context of the overall operation of a hotel. Course offering: As needed. Prerequisite: HS150

Student Learning Outcomes (SLOs):

Upon successful completion of this course, students will be able to:

1. Describe and evaluate the effectiveness of various front offices.
2. Explain procedures, operations, and management of the front office to include human resource management.

HS215 HOUSEKEEPING MANAGEMENT (3)

This course presents a systematic approach to managing housekeeping operations in the hospitality industry. Course offering: As needed. Prerequisite: HS150, HS160 or instructor's permission

Student Learning Outcomes (SLOs):

Upon successful completion of this course, students will be able to:

1. Identify, describe and evaluate elements needed for effective housekeeping operations and management.
2. Explain the systematic approach to managing housekeeping operations.

HS217 HOTEL SECURITY MANAGEMENT (3)

Because security is such a vital issue in today's hospitality industry, students must be prepared to tackle challenges of safety and security. This course will present proven strategies that protect employees and guests and help prevent potential lawsuits and deal with post-9/11 concerns. Course offering: Spring, Even Years. Prerequisite: HS150. Co-requisite: HL130

Student Learning Outcomes (SLOs):

Upon successful completion of this course, students will be able to:

1. Explain the key issues in developing and setting up a security program.
2. Discuss techniques that promote hotel safety and security.

HS219 TRAINING & DEVELOPMENT IN THE HOSPITALITY INDUSTRY (3)

This course provides a comprehensive overview of hospitality training and development by addressing how to assess and analyze training needs, design, implement, and evaluate training programs. Course offering: As needed

Student Learning Outcomes (SLOs):

Upon successful completion of this course, students will be able to:

1. Identify and describe required techniques and knowledge to manage hospitality industry human resource efficiently and effectively.
2. Design and evaluate various training programs.

HS222 FOOD & BEVERAGE COST CONTROL (3)

This course presents the procedures and techniques to help practicing hospitality managers and students understand the complexities of controlling the primary resources, products, labor, and revenue in food and beverage operations. Course offering: Fall only. Prerequisite: MA110

Student Learning Outcomes (SLOs):

Upon successful completion of this course, students will be able to:

1. Describe essential attitude, knowledge and skills needed to become efficient and effective food and beverage cost controller.
2. Develop food and beverage standards for various food and beverage establishments.
3. Formulate effective revenue control systems.
4. Design effective labor cost control systems.
5. Calculate and compare actual food and beverage costs to the budgeted food and beverage costs, and suggest plan of actions to address any variances.
6. Evaluate if a food and beverage establishment's food and beverage cost control function, systems and procedures are properly implemented and managed.

HS237 PRINCIPLES OF EUROPEAN CUISINE (3)

Students are introduced to the preparation of European Cuisine in the traditional ways. The emphasis is on French or Classical Cuisine, terminology and sauces; Mediterranean cuisines are also introduced. Course offering: As needed. Prerequisite: HS203, Public Health Certificate or permission.

Student Learning Outcomes (SLOs):

Upon successful completion of this course, students will be able to:

1. Demonstrate positive work ethics required of them using practical recipes in the preparation of European Cuisine in the traditional methods. The emphasis is on French or Classical Cuisine, terminology and sauces, and Mediterranean cuisine is also introduced.
2. Perform skills and tasks associated with the culinary field of European cuisine through skill development and the details of preparation associated with the demands that Escoffier has established in a professional kitchen.
3. Interpret the fundamentals of Escoffier to prepare and adapt new ideas of food service, as emphasis will be placed on classical cuisine, and presentation of the different varieties foods from the regions of Europe and the Mediterranean.

HS238 GARDE MANGER/COLD FOOD PANTRY (4)

An introduction into the preparation of cold entrees, salads, pates, aspics, and terrines. Carving of fruits and vegetables and the techniques of platter design and prepare the student for buffet presentations and culinary competitions. Course offering: As needed Prerequisite: HS245 and HS237

Student Learning Outcomes (SLOs):

Upon successful completion of this course, students will be able to:

1. Demonstrate positive work ethics required of them using practical recipes in garde manger for the production of cold food preparations, salads, dressings, appetizers and hors d'ouevers for impressive plate presentations that incorporate techniques that utilize the tools that are needed in garde manger.
2. Perform skills and tasks associated in garde manger through skill development and application of techniques under pressures associated with the demands in a professional garde manger kitchen after completion of this course.
3. Interpret the fundamentals of garde manger, as emphasis will be placed on the preparation and presentation of the different varieties of cold food preparations, salads, dressings, appetizers and hors d'oeuvres, and application of the importance of Mise en place and culinary terms used in Garde Manger.

HS244 BAKING AND BREADS (4)

This course is designed to give the student an introduction into the Bakery. Understanding the ingredients used and how they interact in the baking process will be covered. All students will learn and understand how to bake yeast breads, levian breads, sourdough breads, straight dough breads. The student will also be responsible for creating a bread center piece and their own "new" bread of their creation. Course offering: Fall only. Prerequisites: HS 245, HS 248, HS 203A, and HS 203B with a "C" or better.

Student Learning Outcomes (SLOs):

Upon successful completion of this course, students will be able to:

1. Demonstrate knowledge of the 12 step baking process from scaling, mixing, bulk fermentation, folding, dividing, pre-shaping, bench resting, shaping, final fermentation, scoring, baking and cooling.
2. Discuss the importance of starters, structure builders, tenderizers, moisteners, and driers used in bread making.
3. Demonstrate the production of breads, yeast breads & straight dough, yeasted pre-ferments, levain breads, sourdough breads, braiding techniques and decorative breads using various methods.

HS245 FOOD PRODUCTION PRINCIPLES (4)

Students will master the basics of food production, learn many creative ideas, and understand not only how to use ingredients and processes, but why they are used. This course describes essential knowledge for understanding professional culinary preparation, including hot food preparation, cold food preparation (garde manger), and baking. Sanitation, proper storage and handling of food, and creative presentation of food are also discussed. Formerly HS117 & HS118. Course offering: Spring only. Prerequisite: HS203

Student Learning Outcomes (SLOs):

Upon successful completion of this course, students will be able to:

1. Discuss the different types of jobs related to the culinary industry.
2. Demonstrate the proper use of various kitchen equipment, chemicals and cooking techniques in a professional and safe manner.
3. Understand the importance of keeping the kitchen clean, proper chemical use and proper cooking techniques.

HS246 BUFFET SERVICE / CATERING (3)

Students work in groups to plan and create various types of buffets for a number of functions, including weddings. Table and serving layouts, menu planning and production are all aspects of this course. Course offering: As needed. Prerequisites: HS245, HS248

Student Learning Outcomes (SLOs):

Upon successful completion of this course, students will be able to:

1. Write a theme buffet menu, cost the menu, prepare the menu, serve the menu, clean up after the menu and submit an event closing report.
2. Evaluate problems that can arise in the kitchen and make appropriate decisions on how to resolve such problems.
3. Lead a team of cooks through production and service professionally and in a timely manner.

HS247 INTERNATIONAL CUISINE (4)

This course is a study of Japanese, Chinese, Indian, Korean, Singaporean, Thai, Vietnamese, Hawaiian, Pacific island cuisines; an overview of the history, culture and foods of these countries and how they have influenced the culture and cuisine of Guam, the Continental United States and the International Community. Emphasis will be placed on culinary traditions, artistry and special uses of unusual fruits, vegetables, spices, herbs and other cooking ingredients commonly used in Asian, Pacific-Islander Cuisine. Course offering: Fall only. Prerequisites: HS 203A, HS 203B , HS 238, HS 245, HS 246, HS 248 with a "C" or better.

Student Learning Outcomes (SLOs):

Upon successful completion of this course, students will be able to:

1. Discuss the cultural importance and the ingredients used in the countries studied.
2. Demonstrate the proper use of cooking equipment and proper techniques used in the countries studied.
3. Identify ingredients found in International kitchens, describe what country it is used in the most, and create dishes "inspired" by the countries studied.

HS248 PATISSIER - FUNDAMENTALS OF PATISSERIE (4)

The production of cakes, breads, puff pastries, creams, and soufflés are the results of the application of techniques and skills gained through the study of this course. Emphasis will be placed on the preparation and presentation of petit fours and cakes. Course offering: As needed. Prerequisites: HS237, HS245

Student Learning Outcomes (SLOs):

Upon successful completion of this course, students will be able to:

1. Demonstrate positive work ethics using practical recipes in the pastry kitchen patisserie for the production of cakes, puff pastries, creams, and soufflés, for impressive plate presentations that incorporate techniques that utilize tools needed.
2. Perform skills and tasks associated with the culinary field of patisserie through skill development and application of techniques associated with the demands in a professional pastry production kitchen.
3. Interpret the fundamentals of Patisserie food service, as emphasis will be placed on the preparation and presentation of the different varieties of pastries.

HS249 ADVANCED FOOD PREPARATION (4)

This course is a continuation of the Food Production Principles class HS 245 – further skill development, techniques and presentations. Based on contemporary North American Cuisine, this course will help students to prepare for their careers and to help professional cooks advance in their careers in the culinary arts as practiced today in the top-quality food service operations. Course offering: As needed Prerequisite: HS245 , HS237, HS248, HS244, HS238, and HS247

Student Learning Outcomes (SLOs):

Upon successful completion of this course, students will be able to:

1. Demonstrate positive work ethic using practical recipes in Advanced Food Preparation for the production of soups, salads, cold foods, fish and sea food, poultry, and meats, for impressive plate presentations.
2. Perform skills and tasks associated with Advanced Food Preparation through skill development and application of techniques under pressures associated with the demands in a professional kitchen after completion of this course.
3. Interpret the fundamentals of Advanced Food preparation; emphasis will be placed on the preparation and presentation through mise en place, fabrication, grilling, broiling, roasting, baking, sauté, pan frying, deep frying, steaming, submersion cooking, braising, and stewing, remaining true to the principles that govern classical and contemporary cooking concepts in the world of culinary arts.

HS251A TICKETING AND TRAVEL DOCUMENTS (3)

This course will present terminology, methods and case studies to issue various types of “standard” travel and tour industry related documents as they relate to current common practices. Special ticketing guidelines and electronic ticketing will be examined. Formerly HS251. Course offering: Fall only. Prerequisite: HS153

Student Learning Outcomes (SLOs):

Upon successful completion of this course, students will be able to:

1. Demonstrate how to appropriately answer questions from clients regarding domestic and international airline travel.
2. Demonstrate knowledge on reservations and ticketing information, security, baggage allowance, special in-flight services, medical assistance services, unaccompanied children and have basic knowledge of the American Society of Travel Agent’s (ASTA) Air Traveler’s Bill of Rights.

HS251B INTERNET TRAVEL (1)

This course will provide a broad overview of the Internet and its integration into the travel and tourism industry. The Internet can be used as a valuable tool for industry professionals and consumers alike to facilitate travel. The diversity of the travelers today and their needs will determine the travel and tourism provider(s) they will use. Formerly HS251. Course offering: Fall only

Student Learning Outcomes (SLOs):

Upon successful completion of this course, students will be able to:

1. Demonstrate knowledge of how the Internet can be used as a tool for the travel and tourism industry.

2. Demonstrate the convergence of the Internet as an alternate and additional distribution channel for travel services for travel professionals and travelers alike.
3. Demonstrate knowledge by accessing and researching travel destinations and making a pseudo-reservation using the Internet.

HS254 HOSPITALITY & TRAVEL MARKETING (4)

This course examines the hospitality and travel marketing system. Students will learn the different types and roles of hospitality and travel industry organizations, how marketing applies to different travel components and various departments of a hospitality organization. Topics such as core principles of marketing, marketing approaches, strategic and tactical marketing, marketing research and analysis, marketing strategy, and marketing plan development, and methods to effectively implement and control as well as evaluate the marketing plan will be covered. Course offering: Fall only

Student Learning Outcomes (SLOs):

Upon successful completion of this course, students will be able to:

1. Explain the core principles of marketing and their application to the Hospitality and Travel components of the tourism industry.
2. Conduct marketing research by developing a survey relevant to the chosen topic.
3. Create and present a Marketing Plan of their choice.

HS257 PRINCIPLES OF TOUR GUIDING (3)

This course is designed to prepare students to become professional tour guides. Emphasis is placed on tour conducting, tour preparation and reporting, tour routines and itineraries, public speaking, guiding principles, managing group behavior, customer service, cultural diversity and knowledge of Guam History. Homeland security issues as well as the cultural diversity of Oceania, Guam and Micronesia are included. This course also includes a tour of the island of Guam, First Aid and CPR certification. Course offering: Fall, Even Years

Student Learning Outcomes (SLOs):

Upon successful completion of this course, students will be able to:

1. Demonstrate knowledge of the required rules and regulations, the historical, cultural, natural and government process on the island of Guam from the pre-contact time to today in an accelerated timeline.
2. Identify and describe duties and responsibilities of tour guides.
3. Complete a Practicum and additional training regarding tour guiding principles.

HS260 THE TRAVEL PROFESSIONAL (3)

This course will be a guide to becoming a "Travel Professional." The training will include career opportunities, domestic & international travel, marketing and selling of other travel products, niche markets, types of travelers, and the role of the travel professional in the world of the new century. Course offering: Spring only. Prerequisites: HS251A

Student Learning Outcomes (SLOs):

Upon successful completion of this course, students will be able to:

1. Demonstrate knowledge of the similarities and differences of domestic and international travel and its impact on the traveler.
2. Plan and execute an itinerary to include necessary documentation to fit the needs of the travelers and their destination.
3. Demonstrate the proper attitude and commitment to excellence in marketing, selling and customer service through the use of variety of technologies.

HS265 ECO TOURISM (3)

This course will describe eco-tourism, as a form of tourism that fosters learning experiences and appreciation of the natural environment within a region or a culture. It will offer the student an insight to eco-tourism and how it supports a socio-cultural industry that is sustainable, enhances a destination and promotes businesses of an ecotourism nature. Course offering: Spring only

Student Learning Outcomes (SLOs):

Upon successful completion of this course, students will be able to:

1. Demonstrate eco-tourism as an environmentally focused, responsible and sustainable type of tourism.
2. Match the type of eco-tourism: nature based, cultural, adventure and/or alternative to the eco- traveler.
3. Explain career opportunities in the eco-tourism field and how best to use this training to become a travel professional of the new century.

HS292 HOSPITALITY INDUSTRY MANAGEMENT PRACTICUM (3)

This course provides students with the opportunity to apply their knowledge and skills while working in the Hospitality Industry. Course offering: As needed. Prerequisites: Completion of all technical requirements and area of concentration requirements or by permission

Student Learning Outcomes (SLOs):

Upon successful completion of this course, students will be able to:

1. Demonstrate their knowledge, skills, and attitudes by analyzing, solving, evaluating and completing the requirements set by their Practicum experience.
2. Demonstrate knowledge of the similarities and differences of domestic and international travel and its impact on the traveler.
3. Plan and execute an itinerary to include necessary documentation to fit the needs of the travelers and their destination.
4. Demonstrate the proper attitude and commitment to excellence in marketing, selling and customer service through the use of variety of technologies.

HS292A HOTEL OPERATIONS AND MANAGEMENT PRACTICUM (6)

This course provides students with the opportunity to apply their knowledge and skills in a 600 hours practicum in the Hospitality and Lodging industry. This course is divided into two, 300 hour, practicum sessions. The practicum will consist of practicum experience at the hotel's front of the house departments as well as experience the back of the house departments as an overview in hotel management. Course offering: Fall, Spring, & Summer Prerequisites: Completion of all core and technical requirements in area of concentration or by permission. This is a capstone course.

Student Learning Outcomes (SLOs):

Upon successful completion of this course, students will be able to:

1. Demonstrate knowledge, skills, and attitudes by applying the system approach method to analyze, evaluate, solve, and complete the requirements set by their Practicum experience.
2. Demonstrate the ability to complete a hotel standard operating procedure manual for a selected department approved by the Practicum instructor and Program advisor.
3. Apply the knowledge gained and skills achieved through Practicum experience.

HS292B FOOD & BEVERAGE MANAGEMENT PRACTICUM (6)

This course provides students with the opportunity to apply their knowledge and skills in a 600 hours practicum in the Food & Beverage industry. The Practicum is divided into four, 150 hour, work-site practicums. The practicum site include, but is not limited to, assignment in Fast Food, Fine Dining, Buffet and Banquet to experience and have actual hands on experience in a variety of F&B operations. Course offering: As needed Prerequisites: Completion of F&B Core and Technical Courses.

Student Learning Outcomes (SLOs):

Upon successful completion of this course, students will be able to:

1. Demonstrate knowledge, skills, and professionalism by applying the system approach method to analyze, evaluate, solve, and complete the requirements set by their Practicum experience.
2. Distinguish the role and importance of good management and supervision in the food & beverage worksite.
3. Demonstrate the aptitude to develop a comprehensive restaurant operating procedure manual.

HS293 CULINARY PRACTICUM (6)

This course provides students with the opportunity to implement their knowledge and skills through "hands-on" experiences. Allowing for experimentation and creative expression, the students will be placed for a minimum of 600 clock hours of work in a variety of culinary environments. Course offering: As needed. Prerequisite: Completion of all technical requirements and area of concentration requirements

Student Learning Outcomes (SLOs):

Upon successful completion of this course, students will be able to:

4. Demonstrate positive work ethic in a enthusiastic manner through team work in a professional kitchen, and to work at constant speed on tasks as time permits.
5. Perform skills and tasks with minimal supervision established through skill development and application of techniques under pressures associated with the demands in a professional kitchen.
6. Interpret the duties as assigned by the supervisor in charge relevant to the competency requirements adhering to all safety regulations. (Emphasis will be placed on the preparation and maintenance of a clean and neat work area at the end of the work schedule in a professional kitchen.)

HU - HUMANITIES

HU120 PACIFIC CULTURES (3)

A look at the emerging nations and territories of the Pacific, comparing and contrasting their cultures, economic problems, and political statuses with emphasis on the cross-cultural problems of Micronesians living on Guam. Course offering: As needed

Student Learning Outcomes (SLOs):

Upon successful completion of this course, students will be able to:

1. Demonstrate basic understanding of the culture, economy, and politics of the Pacific territories and emerging nations.
2. Discuss the cross cultural issues of Micronesians from various islands living on Guam.
3. Compare and contrast various Pacific island cultures.

HU220 GUAM CULTURES & LEGENDS (3)

This course covers Guam's cultural development and conflicts. Cultural environments both past and present are explored. Emphasis is made on the study of Chamorro culture through folklore. Students will learn the effect, cultural interchange that will enable them to answer specific questions from visitors with a more accurate and deeper explanation. Formerly HU125. Course offering: As needed

Student Learning Outcomes (SLOs):

Upon successful completion of this course, students will be able to:

1. Develop an understanding of the basic principles and theories of the origin of the Chamorro people and their culture.
2. Develop a deeper understanding and appreciation of the Chamorro people and their culture.

JA - JAPANESE LANGUAGE

JA108 SPEAK JAPANESE FOR TOURISM (3)

This course provides basic Japanese conversational skills for those who are interested in working in the tourism industry where direct contact is with Japanese tourists. Emphasis is on listening and speaking skills with language necessary for retail sales, hotel and restaurant environments. Altough geared for the tourism industry, this course is ideal for anyone interested in basic Japanese conversation. JA108 is taught using Romanization and does not include the Japanese writing systems of Hiragana and Katakana. Formerly JA112. Course offering: As needed.

Student Learning Outcomes (SLOs):

Upon successful completion of this course, students will be able to:

1. Comprehend simple spoken conversations related to shops, hotels and restaurants;
2. Communicate orally in simple Japanese information necessary for retail sales, hotel and restaurant environments.

JA110 BEGINNING JAPANESE I (4)

This course gives students basic Japanese language needed in real life situations for different communicative purposes. Based on various topics, language activities provide practice in listening, speaking reading and writing, and reinforce vocabulary, grammar and language functions. Students also learn to read and write the two Japanese writing systems of Hiragana and Katakana, and to identify selected Kanji (Chinese) characters. Cultural aspects of Japan are also discussed to better understand the target language. Course offering: Fall & Spring only

Student Learning Outcomes (SLOs):

Upon successful completion of this course, students will be able to:

1. Comprehend simple spoken conversations.
2. Communicate orally in a limited variety of everyday situations using basic Japanese.
3. Comprehend short, simple sentences written in Japanese.
4. Identify and write Hiragana, and identify Katakana and 24 Kanji characters.

JA111 BEGINNING JAPANESE II (4)

A continuation of Beginning Japanese I, this course provides learners with language necessary for meaningful communicative interaction. Language functions and structures are practiced and applied to real-life situations through role-play and pair/group tasks, and with a variety of audio/visual and computer activities. Listening and speaking skills are emphasized, with further practice in the reading and writing of Hiragana, Katakana and Kanji. Course offering: As needed

Student Learning Outcomes (SLOs):

Upon completion of this course, students will be able to:

1. Comprehend additional simple spoken conversations.
2. Communicate orally in a variety of everyday situations using basic Japanese.
3. Comprehend additional short, simple sentences written in Japanese.

4. Identify an additional 50 Kanji characters.

JA210 INTERMEDIATE JAPANESE I (3)

This second year Japanese language course teaches students intermediate language skills needed for real life situations, through meaningful, communicative, interactive activities. It expands on the language base created in Beginning Japanese I and II with complex language structures and additional functions. Learners experience the language and culture in a variety of activities as role-play and games, video-viewing and discussions, and through computer and Internet projects. Course offering: Fall only. Prerequisites: JA111

Student Learning Outcomes (SLOs):

Upon successful completion of this course, students will be able to:

1. Comprehend oral and written narrations and conversations in low-intermediate Japanese.
2. Communicate orally in everyday situations using low- intermediate Japanese.
3. Write short narrations and conversations using limited complex structures.
4. Identify approximately 150 Kanji characters.

JA211 INTERMEDIATE JAPANESE II (3)

A continuation of JA210, Intermediate Japanese II expands on the language base created in JA110, JA111, and JA210 through the addition of complex grammar patterns and different levels of politeness and formality. In concert with building oral/aural capability, limited focus is concentrated on the reading and writing of selected kanji. Course offering: Spring only.. Prerequisite: JA210

Student Learning Outcomes (SLOs):

Upon successful completion of this course, students will be able to:

1. Comprehend additional oral and written narrations and conversations in low-intermediate Japanese.
2. Communicate orally in additional everyday situations using low- intermediate Japanese.
3. Write short narrations and conversations using limited complex structures.
4. Identify approximately 170 Kanji characters.

KE - KOREAN LANGUAGE

KE110 BEGINNING KOREAN I (3)

This is a beginning course in conversational Korean. Students will learn correct pronunciation, basic grammar, and sufficient vocabulary to be able to engage in basic Korean conversation. Emphasis is on listening and speaking skills with language necessary for retail sales, hotel and restaurant environments. Although geared for the tourism industry, this course is ideal for anyone interested in basic Korean conversation. Course offering: As needed

Student Learning Outcomes (SLOs)

Upon successful completion of this course, students will be able to:

1. Ask simple questions, such as a person's name or the price of goods.
2. Count in Korean up to 100,000.
3. Order a meal in a Korean restaurant using Korean.
4. Give simple directions using Korean.

MA - MATHEMATICS

MA052 GENERAL MATHEMATICS (3)

This course is designed to be an overview of basic mathematical operations and concepts, measurements and converting units of measurement, ratios and proportions, basics of statistical graphs, and basic algebraic concepts. Course offering: As needed

Student Learning Outcomes (SLOs):

Upon successful completion of this course, students will be able to:

1. Perform basic operations involving whole numbers, fractions, decimals, and percents.
2. Solve ratios and proportion problems.
3. Perform basic operations involving measurements, including converting units of measurement
4. Summarize basic statistical tables, graphs, and charts.
5. Apply basic algebraic concepts.

MA057 APPLIED MATHEMATICS (3)

Applied Mathematics is a set of modular learning materials prepared to help the Adult High School student develop and refine job-related math skills. The course includes material that focuses on arithmetic operations, problem solving techniques, estimation of answers, measurement skills, geometry, data handling, simple statistics, and the use of algebraic formulas to solve problems. The emphasis is on the ability to understand and apply functional mathematics to solve problems, with the help of technology, in the world of work. Course offering: As needed

Student Learning Outcomes (SLOs):

Upon successful completion of this course, students will be able to:

1. Use technology to find solutions to given mathematical problems.
2. Apply ratios and proportions in problem solving.
3. Solve problems involving measurement.
4. Solve basic perimeter, area, and volume problems.

MA065 ADULT MATHEMATICS (3)

This course is designed to be an overview of several basic mathematical operations and concepts involving Real Numbers, Order of operation, Basic Algebra, Measurement, Word Problems, Basic Statistics, Geometry, and Graphing. This course prepares students for General Education Development Testing Program (G.E.D) and the further learning of Algebra. Course offering: As needed

Student Learning Outcomes (SLOs):

Upon successful completion of this course, students will be able to:

1. Perform basic operation involving whole numbers, fractions, decimals, and percents.
2. Solve ratios, rates, and proportion problems.
3. Perform conversions among Units of Measure.
4. Understand basic statistical terms, tables, and charts.
5. Learn and apply basic algebraic concepts.

MA070 ALGEBRA I (3)

This course is designed as a first course in Algebra. Emphasis on the following basic algebraic topics: working with real numbers, variable expression, general equations, polyomials, factoring, rational expressions, rectangular coordinates, linear equations and inequalities in two variables and graphs of linear equations and inequalities. The use of technology in the study of various topics is also emphasized. Course offering: As needed. Prerequisite: Pass with a B or better MA052 or equivalent high school coursse.

Student Learning Outcomes (SLOs):

Upon successful completion of this course, students will be able to:

1. Perform basic operations involving Integers, rational numbers, exponents and variable expressions.
2. Translate or solve literal equations and word problems.
3. Perform basic operations involving polynomial expressions including factoring
4. Simplify or solve expressions and equations involving rationals or radicals.
5. Understand and apply the concepts related to equations of lines and their graphs.

MA085 FUNDAMENTALS OF MATHEMATICS (3)

This course is designed to provide students with basic mathematical skills needed in the career and technical fields. This course will integrate computer technology with classroom instruction. Classroom instruction will comprise of tradition and active-learning strategies. Topics for this course include operations with whole numbers, fractions, decimals, ratios, proportions, and percents. Formerly MA100. Course offering: As needed. Prerequisite: Placement test.

Student Learning Outcomes (SLOs):

Upon successful completion of this course, students will be able to:

1. Compute whole numbers, fractions, decimals, and percentages.
2. Identify and set up a ratio or proportion.
3. Solve proportions, equations, and word problems.
4. Evaluate and simplify expressions.
5. Develop the prerequisite skills for post-secondary math courses.

MA095 PRE-COLLEGE MATHEMATICS (4)

This course is a continuation of MA085 and is designed to provide students with basic mathematical skills needed in the trade and technical fields. Topics include operations with fractions, percentage, units of measurement, basic geometry, basic statistics, real numbers, order of operations, simple algebraic expressions, solving equations, and inequalities in one variable, plotting

points on the Cartesian coordinate system, and problem solving. Course offering: As needed. Prerequisite: Placement test or satisfactory completion of MA085

Student Learning Outcomes (SLOs):

Upon successful completion of this course, students will be able to:

1. Work with operations involving real numbers both rational and irrational, even with units of measurement.
2. Simplify or solve elementary algebraic expressions, proportions, equations, and word-problems.
3. Identify and apply basic geometric properties and concepts.
4. Summarize a set of data by finding the mean, median, mode, and range.

MA107 MATHEMATICS FOR THE TRADES (4)

This course is especially designed for students seeking a Certificate in Automotive, Allied Health, and Construction Trades Programs, as well as other technical and occupational areas. This course focuses on fundamental concepts of Arithmetic, Algebra, Geometry, and Trigonometry supported with practical applications in a variety of technical and career vocations, included but not limited to automotive, allied health, and construction trades. It is especially for students who find math challenging and for adults who have been out of school for a time. The course helps students to master the needed on-the-job math skills by a wide variety of real problems and situations.

Student Learning Outcomes (SLOs):

Upon successful completion of this course, students will be able to:

1. Identify numbers and perform arithmetic operations accurately.
2. Perform mathematical computations with ratios and percentages.
3. Apply measurements with both US and Metric Systems.
4. Read and interpret information from basic statistical graphs.
5. Solve application problems with basic algebraic skills and equations.

MA108 INTRODUCTION TO COLLEGE ALGEBRA (3)

This course is a continuation of MA 095and is designed to provide students with basic Algebraic skills needed in the career and technical fields and the background necessary for advancement in mathematics. Topics include Real Number system and operation, fundamental operations and factorization of polynomials, introduction to equations and inequalities, rational expressions including exponents, radicals, quadratic equations and quadratic formula, and applications. Formerly MA110. Course offering: Fall and Spring. Prerequisite: Placement test or successful completion of MA095

Student Learning Outcomes (SLOs):

Upon successful completion of this course, students will be able to:

1. Solve and graph linear equations and inequalities.
2. Simplify and solve rational expressions and equations.
3. Solve quadratic equations using the following methods: factoring, completing the square, and the quadratic formula.

MA110A FINITE MATHEMATICS (3)

This is a continuation of the MA 108. Topics include: Elementary Functions, Linear Equations, Polynomial Functions, Quadratic Functions, Exponential and Logarithmic functions, Systems of Linear Equations and Inequalities, including Matrix Equations, Matrices and Determinants, and Mathematics of Finance. Course offering: Fall and Spring. Prerequisites: A grade of C or higher in MA108, placement test, or approval of Department Chair.

Student Learning Outcomes (SLOs):

Upon successful completion of this course, students will be able to:

1. Apply key theories and concepts to solve problems selected from functions and their graphs, linear and quadratic equations, matrices, linear programming, and financial mathematics.
2. Solve real-world problems in Finite Mathematics by using skills acquired from application problems in textbook exercises.
3. Solve problems using appropriate technology translating problem from one form to another, using various problem solving strategies.
4. Apply key theories, concepts, and methods of inquiry in finite Mathematics to novel problems, to other disciplines, and to situations that require understanding rather than rote memory.

MA161A COLLEGE ALGEBRA & TRIGONOMETRY I (4)

This course is the first of two courses designed to provide the mathematical tools needed by students enrolled in selected technical occupational programs. Topics included in this course are equations and inequalities, functions and graphs, polynomial and rational functions, exponential and logarithmic functions, and systems of linear equations and inequalities with matrices.

Formerly MA121. Course offering: As needed. Prerequisite: Successful completion of MA 110A with a grade of "C" or better, MA 108 with a grade of "B" or better, or placement.

Student Learning Outcomes (SLOs):

Upon successful completion of this course, students will be able to:

1. Identify and solve linear equations and inequalities.
2. Differentiate between polynomial, rational, exponential, logarithmic, and other functions and their graphs.
3. Solve systems of linear equations and linear inequalities with alternate methods.

MA161B COLLEGE ALGEBRA & TRIGONOMETRY II (4)

This course is a continuation of MA 161A and upon successful completion, a student will be calculus ready. Topics included in this course are trigonometric functions, trigonometric identities and equations, and applications of trigonometry and discrete algebra. Formerly MA122. Course offering: As needed. Prerequisite: Successful completion of MA161A with a "C" or better.

Student Learning Outcomes (SLOs):

Upon successful completion of this course, students will be able to:

1. Demonstrate understanding of the trigonometric concepts to solve trigonometry exercises and equations.
2. Determine which definition, concept, and identity should be implemented to find solutions to application problems.
3. Apply basic mathematical concepts and methods involving the concept of sequences, counting processes, probability and mathematical induction.

ME - AUTOMOTIVE

ME051 DRIVER'S EDUCATION (3)

Department of Motor Vehicle requires students to be in class for 32 hours and in the car for 8 hours of instruction covering driving procedures, vehicle code rules and laws, use of vehicle instruments and controls. The eight hours consist of 4 hours behind-the-wheel driving experience and 4 hours of in-car observation covering road driving skills as well as special skills such as backing, parallel parking, handling emergencies etc. Students must be rated as "competent" on all "required" driving skills in order to receive credit (CR) for the course. Course offering: As needed. Prerequisite: Students must be 15 years of age or older before the first day of the course

Student Learning Outcomes (SLOs):

Upon successful completion of this course, students will able to:

1. Demonstrate proper road driving skills.
2. Properly reverse a passenger car.
3. Parallel park a passenger car.
4. Perform passenger car emergency handling maneuvers.

ME161A INTRODUCTION TO AUTOBODY REPAIR (3)

This is an introductory course covering the basic concepts and practices in repairing damage to automobile bodies. Hand tools, power tools, materials, welding and their applications are stressed. Emphasis is on small dent repair and rust patching. Course offering: Fall only

Student Learning Outcomes (SLOs):

Upon successful completion of this course, students will be able to:

1. Follow shop safety procedures.
2. Prepare autobody components for repair.
3. Inspect, remove, replace and repair outer body panels.
4. Weld and cut various metals using GMAW (mig) and Gas welding equipment.

ME161B INTRODUCTION TO AUTOBODY PAINTING (3)

This course is an introductory course covering the basic concepts and practices in partial and complete refinishing of auto body paint surfaces. Application and trouble shooting are stressed. Emphasis is placed on preparing the automobile for proper refinishing. Course offering: As Needed

Student Learning Outcomes (SLOs):

Upon successful completion of this course, students will be able to:

1. Perform corrosion protection restoration, sound deadening restoration and panel bonding.
2. Perform metal finishing and body filling procedures.
3. Inspect, remove, reinstall or replace, and align movable glass and hardware.
4. Perform repairs involving plastics and adhesives.

ME171A AUTOBODY COLLISION REPAIR (3)

This is an advanced auto body course that deals with repairing damages due to collision. Frame straightening and auto body repairs will be covered. Power equipment usage, glass replacement, shop operations, management and refinement of skills learned in prior courses will be stressed. Emphasis is on collision damage repair. Course offering: As needed

Student Learning Outcomes (SLOs):

Upon successful completion of this course, students will be able to:

1. Follow painting and refinishing safety precautions.
2. Prepare surfaces for painting and refinishing.
3. Use a paint spray gun and related equipment.

ME171B AUTOBODY REFINISHING (3)

This is an advanced auto body course that deals with overall auto body painting. Refinement of skills learned in the prior course such as surface preparations and spot work will be stressed. Emphasis will be placed on complete paint jobs. Course offering: Fall only

Student Learning Outcomes (SLOs):

Upon successful completion of this course, students will be able to:

1. Mix, match, and apply paint.
2. Identify and correct paint defects.
3. Perform final detail procedures.

MHT – MEDIUM/HEAVY TRUCK

MHT100A INTRO TO DIESEL TECHNOLOGY AND PREVENTIVE MAINTENANCE PART I (3)

This is the first of a two part introductory course that prepares students for study within specific areas of Medium/Heavy Truck Diesel Technology. Topics covered include workshop safety practices, proper usage of hand tools, special tools and testing equipment, and preventive maintenance procedures on diesel engines, fuel systems, air induction and exhaust systems. Course offering: As needed

Student Learning Outcomes (SLOs):

Upon successful completion of this course, students will be able to:

1. Demonstrate proper workshop safety practices.
2. Identify, describe and demonstrate the proper usage of hand tools, special tools, and testing equipment.
3. Perform preventive maintenance procedures on diesel engines, fuel systems, air induction, and exhaust systems.

MHT100B INTRO TO DIESEL TECHNOLOGY AND PREVENTIVE MAINTENANCE PART II (3)

This is the second of a two part introductory course that prepares students for study within specific areas of Medium/Heavy Truck & Diesel Technology. The course focuses on preventive maintenance procedures involving the cooling system, lubrication systems, cab and hood, safety equipment, hardware, heating ventilation & air conditioning (HVAC), electrical/electronics, charging systems, lighting systems. frame and chassis, hydraulic brakes, drive trains, suspension & steering systems, tires & wheels, and frame with fifth wheel. Course offering: As needed. Prerequisite: MHT100A

Student Learning Outcomes (SLOs):

Upon successful completion of this course, students will be able to:

1. Execute preventive maintenance procedures on cooling systems, lubrication systems, cab and hood
2. Carry out preventive maintenance procedures on safety equipment, hardware, heating ventilation & air conditioning (11VAC), electrical/electronics, charging systems, lighting systems, frame and chassis
3. Perform preventive maintenance procedures on hydraulic brakes, drive trains, suspension & steering systems, tires & wheels, and frame with fifth wheel

MHT110 DIESEL ENGINES PART I (3)

This course introduces students to the theory and operation of diesel engines that includes general engine diagnostics, minor diagnosis and repair of cylinder head and valve train, engine block, lubrication system, and cooling system. Formerly ME196A. Course offering: As needed. Prerequisite: MHT100A & MHT100B

Student Learning Outcomes (SLOs):

Upon successful completion of this course, students will be able to:

1. Explain general diesel engine operation and perform basic engine troubleshooting and repair.
2. Demonstrate cylinder head and valve train diagnostics and repair
3. Expound engine block diagnostics and repair
4. Identify lubrication system components and diagnose and repair minor problems.

5. Name the major parts and explain the functions of the cooling system and execute minor diagnostic and repair procedures.

MHT120 MEDIUM/HEAVY TRUCK DRIVE TRAINS PART I (3)

This is an introductory course covering the functionality of diesel transmissions, fundamentals of diesel clutches, troubleshooting, and repair of basic transmission drivability faults. Formerly ME193. Course offering: As needed

Student Learning Outcomes (SLOs):

Upon successful completion of this course, students will be able to:

1. Describe clutch operation.
2. Discuss diesel transmission functionality.
3. Troubleshoot elemental transmission drivability problems and repair elemental faults.

MHT130 BRAKE SYSTEMS PART I (3)

This course provides instruction in Medium/Heavy Truck Brakes that includes basic diagnosis & repair of air supply and service systems, mechanical/foundation systems, and parking brakes. Course offering: As needed. Prerequisite: MHT100A & MHT100B

Student Learning Outcomes (SLOs):

Upon successful completion of this course, students will be able to:

1. Depict air supply and service systems operation
2. Identify mechanical/foundation system components and perform minor repairs.
3. Explain parking brake operation.

MHT140 SUSPENSION & STEERING PART I (3)

This is a study of elements in Medium/Heavy Truck Suspension & Steering that include introductory level steering system functions, diagnostics, and repair, suspension system functions, diagnostics, and repair, and wheel alignment diagnosis, adjustment, and repair. Formerly ME192. Course offering: As needed. Prerequisite: MHT100A & MHT100B

Student Learning Outcomes (SLOs):

Upon successful completion of this course, students will be able to:

1. Differentiate between different steering system designs and explain their functions.
2. Identify suspension system components and discuss basic functionality.
3. Perform wheel alignment diagnosis, adjustment, and repair.

MHT150 MEDIUM/HEAVY TRUCK HEATING, VENTILATION, & AIR CONDITIONING (3)

This course gives students basic instruction in Medium/Heavy Truck Heating Ventilation & Air Conditioning (HVAC) that include HVAC systems diagnosis, service, and repair, general A/C system diagnosis, service, and repair, A/C compressor and clutch, diagnosis, service, and repair, and evaporator, condenser. and related components, diagnosis, service, and repair. Course offering: As needed. Prerequisite: MHT100A & MHT100B

Student Learning Outcomes (SLOs):

Upon successful completion of this course, students will be able to:

1. Depict basic HVAC system operation.
2. Troubleshoot general A/C system malfunctions.
3. Explain A/C compressor and clutch operation and perform basic repairs.
4. Describe evaporator, condenser, and related components' functionality.

MHT160 HYDRAULICS (3)

This course provides students with fundamental instruction in Medium/Heavy Truck Hydraulic Systems that include entry level general hydraulic system diagnosis, service, and repair, hydraulic system pump diagnosis, service, and repair, and filtration/ reservoirs (tanks) diagnosis, service, and repair. Course offering: As needed. Prerequisite: MHT100A & MHT100B

Student Learning Outcomes (SLOs):

Upon successful completion of this course, students will be able to:

1. Recognize general hydraulic system components and carry out entry level diagnosis, service, and repair.
2. Ascertain basic hydraulic system failures and perform preliminary pump diagnosis, service, and repair.
3. Perform fundamental filtration/reservoirs (tanks) diagnosis, service, and repair.

MHT170 MEDIUM/HEAVY TRUCK ELECTRICAL/ELECTRONIC SYSTEMS PART I (3)

This course is designed to give students an elemental understanding of Medium/Heavy Truck Electrical/Electronic Systems that include general electrical systems diagnosis, battery diagnosis and repair, and starting system diagnosis and repair. Formerly ME194. Course offering: As needed

Student Learning Outcomes (SLOs):

Upon successful completion of this course, students will be able to:

1. Perform general electrical systems diagnosis.
2. Discuss battery construction and determine cause/s of battery failure.
3. Demonstrate fundamental starting system diagnosis and repair.

MHT210 DIESEL ENGINES PART II (3)

This course builds on MHT110; the course of study includes air induction and exhaust systems diagnosis and repair, fuel supply system diagnosis and repair, mechanical fuel injection diagnosis and repair, electronic fuel management system diagnosis and repair, and engine brakes diagnosis and repair. Course offering: As needed. Prerequisite: MHT110

Student Learning Outcomes (SLOs):

Upon successful completion of this course, students will be able to:

1. Troubleshoot intermediate level air induction and exhaust system failures and perform needed repairs.
2. Diagnose, intermediate level fuel supply system failures and perform needed repairs.
3. Ascertain intermediate level mechanical fuel injection faults and perform needed repairs.
4. Determine intermediate level electronic fuel management system problems and perform needed repairs.
5. Perform intermediate level engine brakes diagnosis and repair.

MHT230 BRAKE SYSTEMS PART II (3)

This course prepares students to perform complex diagnostics and repairs on hydraulic brakes, power assist units, and air and hydraulic antilock brake systems (ABS) and automatic traction Control (ATC). Course offering: As needed. Prerequisite: MHT130

Student Learning Outcomes (SLOs):

Upon successful completion of this course, students will be able to:

1. Ascertain hydraulic brake problem causes and rectify faults.
2. Demonstrate power assist unit failure analysis and take proper steps to correct failure.
3. Locate air and hydraulic Antilock Brake System (ABS) and Automatic Traction Control (ATC) faults and perform needed repairs.

MHT270 MEDIUM/HEAVY TRUCK ELECTRICAL/ELECTRONIC SYSTEMS PART II (3)

This course builds on MHT170; the course of study includes lighting systems diagnosis and repair, and the diagnosis and repair of warning devices, gauges, and related electrical systems. Course offering: As needed. Prerequisite: MHT170

Student Learning Outcomes (SLOs):

Upon successful completion of this course, students will be able to:

1. Locate faults in the lighting system and correct problems.
2. Pinpoint failure causes in gauges and warning devices and take proper action to correct situation.

MK - MARKETING

MK123 PRINCIPLES OF MARKETING (3)

This course is an overview of marketing concepts and applications in a competitive, global, and Internet-reliant world. Marketing opportunities are analyzed; product, pricing and distribution decisions are weighed; ethics are discussed; and an integrated marketing communications plan is constructed. Formerly SM210. Course offering: As needed

Student Learning Outcomes (SLOs):

Upon successful completion of this course, students will be able to:

1. Integrate the latest technology effectively in business and marketing communications.
2. Identify desirable personality traits important to business.
3. Demonstrate an understanding of the functions and foundations of marketing.

MK124 SELLING (3)

In today's highly competitive business environment when dealing with sophisticated buyers who demand correct answers to complex problems, it is the consultative or relationship-building style that spells success for a salesperson. In this course, students learn techniques of professional selling and reap financial rewards and gain self-esteem. Formerly MK220 & HS220. Course offering: As needed. Prerequisite: MK123 or permission from the Marketing Advisor

Student Learning Outcomes (SLOs):

Upon successful completion of this course, students will be able to:

1. Prepare and execute both a consumer oriented and a business-to-business oriented sales presentation.
2. Demonstrate an understanding of the importance and techniques of relationship marketing.
3. Exhibit ethical behavior in selling.
4. Describe sales management structures.

MK205 ENTREPRENEURSHIP (3)

Entrepreneurship is a practical "how to" approach to small business management from creation and finance to records systems and financial management. This course is ideal for those persons considering starting a business as well as those that are already in business. Formerly MK221 & HS230. Course offering: As needed. Prerequisite: MK123 or permission from the Marketing Advisor

Student Learning Outcomes (SLOs):

Upon successful completion of this course, students will be able to:

1. Understand the characteristics and skills of a successful entrepreneur.
2. Calculate the risks and rewards of an entrepreneurial venture.
3. Understand the advantages and disadvantages of a startup, a buyout, and a franchise arrangement.
4. Determine the factors necessary to gain a competitive advantage.
5. Develop a Business Plan.
6. Understand the legal organization of a small business.

MK206 RETAILING (3)

This career preparation course deals with the study of the processes of retailing and the dynamic role it plays within today's changing economy. The course examines retail planning, the retail environment, market selection and analysis, retail operation management, and retail administration among other vital elements of this constantly-changing field. Formerly MK223 & HS242. Course offering: As needed. Prerequisite: MK123 or permission from the Marketing Advisor

Student Learning Outcomes (SLOs):

Upon successful completion of this course, students will be able to:

1. List the major aspects of a retail career and the prerequisites for success in retailing.
2. Explain the importance of retail customers to the retail manager.
3. Discuss how the legal and ethical environment affects the retailer in making decisions.
4. Explain how retailers select and reach their target market through the location decision.
5. Explain a retailer's merchandise buying and handling.
6. Discuss the role of advertising and promotion in the operation of a retail business.

MK207 E-MARKETING (3)

E-Marketing introduces ways in which information technology can create a competitive advantage. Basic business models for making money on the Internet, insight to how companies manage global relationships with suppliers and customers, the growing importance of the Internet in business-to-business marketing, and how both large multinational firms and local companies can use data obtained from the Internet for market segmentation, targeting, and positioning are introduced. Course offering: As needed. Prerequisite: MK123 or permission from the Marketing Advisor

Student Learning Outcomes (SLOs):

Upon successful completion of this course, students will be able to:

1. Explain the basic models for engaging in commerce on the Internet.
2. Explain how information technology can create a competitive advantage.
3. Develop product strategies for global competition.
4. Learn techniques for relationship marketing and customer services on the Internet.
5. Understand why interactivity is a fundamental and vital aspect of an Internet retail strategy.
6. Explain how international channels of distribution have become key factors in determining competitive advantage.

MK208 INTERNATIONAL MARKETING (3)

International Marketing is ideal for students wishing to work for multi-national corporations, particularly those operating in Asia, or students interested in taking advantage of import/export opportunities in the Pacific Region. Students will be able to analyze the global marketing environment, formulate multinational marketing strategies, and understand how goods and services move between countries. Course offering: As needed. Prerequisite: MK123 or permission from the Marketing Advisor

Student Learning Outcomes (SLOs):

Upon successful completion of this course, students will be able to:

1. Gain a truly global perspective rather than just from the U.S. point of view by addressing, confronting, and analyzing the existence of different environments, expectations, and market conditions.
2. Describe export and import operations.
3. Explain how businesses work with governments and what role governmental considerations can play for the international marketer.
4. Develop marketing and management strategies for international companies.
5. Understand that there are different political and legal environments in which international companies must operate.

MK224 ADVERTISING (3)

Advertising is exciting and challenging. Using one's imagination and skills to convince people to purchase your product or service can be very satisfying and profitable. In this course, students learn how to entice people to buy through the application of time-proven advertising strategies and their own creativity. Great advertising campaigns are born from one "big idea" but are executed with an understanding of consumer behavior, techniques of communication, media planning, and teamwork. Formerly HS243. Course offering: As needed. Prerequisite: MK123 or permission from the Marketing Advisor

Student Learning Outcomes (SLOs):

Upon successful completion of this course, students will be able to:

1. Develop a comprehensive and effective Advertising Plan.
2. Think and plan strategically; gather and analyze research data; compute and evaluate the potential of alternate courses of action; cooperate with a team in developing creative solutions to a problem; analyze competitive proposals; understand why people be
3. Appreciate the effect of marketing and advertising on business, industry, and national economics.
4. Comprehend the strategic function of advertising within the broader context of business and marketing.
5. Discover what people in advertising do, how they do it, and the career opportunities these fields offer.

MK298 CO-OP/WORK-LEARN (3)

This course provides students a supervised work experience where they develop skills necessary to be successful in a marketing career. In lieu of MK298, Co-op/Work-Learn, students may, with postsecondary departmental approval, choose any of the equivalent courses: a 200 level Supervision and Management course, VC135, InDesign®, VC141, Web Design, VC161, Video I, or Special Project. Course offering: As needed

Student Learning Outcomes (SLOs):

Upon successful completion of this course, students will be able to:

1. Develop marketing skills in a dynamic environment.
2. Demonstrate appropriate work behavior with co-workers, clients, and supervisors.
3. Exhibit ethical behavior at work.
4. Communicate more effectively, follow directions, and handle business conflict.
5. Exhibit professionalism in the conduct of marketing.

MS - MEDICAL ASSISTING

MS101 INTRODUCTION TO MEDICAL ASSISTING (3)

This course provides an introduction to the Medical Assisting program. The roles of the Medical Assistant in the patient care facilities are defined as well as fundamental administrative and clinical concepts and skills. Introduction to ethical and legal considerations is also provided. Course offering: As needed

Student Learning Outcomes (SLOs):

Upon successful completion of this course, students will be able to:

1. Demonstrate basic knowledge of administration and clinical skills in the medical assisting field.
2. Discuss ethical legal considerations and theoretical concepts regarding patient care.

MS120 CLINICAL MEDICAL ASSISTING I (2)

Students will acquire knowledge of basic ambulatory care concepts and principles necessary for the performance of back office duties. Students are provided with the knowledge of routine patient care and diagnostic procedures used to assess the health status

of patients including vision testing, hearing testing, electrocardiography, and the knowledge to prepare the back office, equipment and supplies necessary to facilitate patient flow through the clinic and/or physician's office. Admission into Medical Assisting Program is required. Course offering: Fall only. Prerequisites: Admission into Medical Assisting Program, MS101 or concurrently, HL120 or concurrently. Co requisites: MS121, MS125

Student Learning Outcomes (SLOs):

Upon successful completion of this course, students will be able to:

1. Demonstrate knowledge of basic medical assistant procedures in a lab and clinical setting.
2. Demonstrate ability to assist with facilitating patient flow through the clinic and/or physicians office.

MS121 CLINICAL MEDICAL ASSISTING II (2)

This course provides students with the opportunity to practice the application of basic ambulatory care concepts and principles in the performance of back office duties. Students will practice applying routine patient care/ diagnostic procedures in assessing patient health care, including vision and hearing testing and electrocardiograph. Students will practice preparation of back office, equipment and supplies in a physician's office. Admission into the Medical Assisting program is required. Course offering: Fall only. Prerequisites: Admission into Medical Assisting Program, MS101 or concurrently, HL120 or concurrently. Corequisites: MS121, MS125

Student Learning Outcomes (SLOs):

Upon successful completion of this course, students will be able to:

1. Demonstrate the ability to function effectively as allied health team members in the delivery of quality patient care at entry level proficiency.
2. Demonstrate the ability to apply routine patient care/diagnostic procedures in assessing health care.
3. Demonstrate the ability to practice applying routine patient care/diagnostic procedures.

MS125 CLINICAL OFFICE EXPERIENCE (1)

This course provides students with the opportunity to apply in a physician's office or medical clinic the knowledge and skills gained in co-requisite courses, MS120 and MS121. Admission into the Medical Assisting Program or instructor's consent is required. Course offering: As needed. Prerequisites: Admission into the Medical Assisting Program, MS101 or concurrently, HL120 or concurrently. Co-requisites: MS120, MS121.

Student Learning Outcomes (SLOs):

Upon successful completion of this course, students will be able to:

1. Demonstrate in an office or clinical setting knowledge of basic medical assistant procedures.
2. Demonstrate use of interpersonal and communication skills in the clinical setting.

MS140 ADMINISTRATIVE MEDICAL ASSISTING (2)

This course provides the student with the theoretical concepts and principles of administrative medical office practices and procedures in the clinic and/or physician's office. The students are taught the basic skills necessary for "entry-level" proficiency in the performance of duties in the administrative or front office. Admission to the Medical Assisting Program or instructor's consent is required. Course offering: Spring only. Prerequisites: MS101 or concurrently. Corequisites: MS141 or MS145

Student Learning Outcomes (SLOs):

Upon successful completion of this course, students will be able to:

1. Demonstrate office procedures as performed by a medical assistant in an office setting.
2. Demonstrate knowledge of theoretical concepts and principles of medical office practice.

MS141 ADMINISTRATIVE MEDICAL ASSISTING LABORATORY (2)

This course provides students with the laboratory setting to practice performing administrative office procedures which includes administrative planning functions for an ambulatory care facility, demonstration of various routine office reception and oral communication techniques, role playing common administrative medical assistant/client situations, exercises in written communication, dictation and transcription, and completion of various forms related to patient records and office management of medical clinic or physician's office. Course offering: Spring only. Prerequisites: Admission to the Medical Assisting Program or instructor's consent is required. MS101 or concurrently Corequisites: MS140, MS145

Student Learning Outcomes (SLOs):

Upon successful completion of this course, students will be able to:

1. Demonstrate administrative office procedures in a lab setting.
2. Demonstrate use of professional oral communication techniques in the medical office or clinic setting.
3. Demonstrate use of professional written communication techniques in the medical office or clinic setting.

MS145 ADMINISTRATIVE MEDICAL ASSISTING CLINICAL (1)

This course is an application of the knowledge and skills gained in MS140 Administrative Medical Assisting I and MS141 Administrative Medical Assisting II. It requires the student to integrate knowledge and skills gained in MS140 and MS141 Administrative Medical Assisting and apply them in the medical office or clinic setting. Course offering: Spring only. Prerequisites: Admission to the Medical Assisting Program or instructor's consent is required. MS101 or concurrently. Corequisites: MS140, MS141

Student Learning Outcomes (SLOs):

Upon successful completion of this course, students will be able to:

1. Demonstrate administrative office procedures in a clinical setting.
2. Discuss with supervisor/instructor procedures used in clinical settings.

MS201 MEDICAL LAW AND ETHICS (2)

This course provides students with the basic knowledge of legal and ethical responsibilities in patient care and management, which includes laws that affect medical practice and the practice of medical assisting and the application of medical ethics in performance of duties. Course offering: Summer only

Student Learning Outcomes (SLOs):

Upon successful completion of this course, students will be able to:

1. Identify legal and ethical responsibilities in patient care and management.
2. Display knowledge of the medical ethics in performance of duties.

MS210 MEDICAL ASSISTING CRITIQUE (1)

This course is an analytical approach to correlate the basic patient care concepts and principles with the practical experience in the delivery of quality patient care. With the basic ambulatory patient care concepts and principles, students will analyze, synthesize and evaluate patient care management. Students will also review and prepare for examination as certified medical assistants. Course offering: Spring only. Prerequisites: MS120, MS121, MS125, MS140, MS141, MS145. Corequisite: MS292

Student Learning Outcomes (SLOs):

Upon successful completion of this course, students will be able to:

1. Analyze, synthesize, and evaluate patient care management.
2. Review and prepare for examination as certified Medical Assistants.

MS220 MEDICAL ASSISTING SPECIALTIES (2)

This course provides students with the principles of advanced medical assisting techniques and procedures in an ambulatory care facility. Students will learn the principles of assisting the physician in the appraisal of the health status of patients with prescribed medical office diagnostic tests and follow-up care. Course offering: Fall only. Prerequisites: MS120, MS121, MS125, SI130. Corequiste: MS221, MS225

Student Learning Outcomes (SLOs):

Upon successful completion of this course, students will be able to:

1. Assist the physician in the appraisal of the patient's health status.
2. Demonstrate the ability to use advanced medical assisting techniques and procedures.

MS221 MEDICAL ASSISTING SPECIALTIES LABORATORY (1)

This course provides students with a laboratory setting to practice advanced skills in clinical care procedures to assist the physician in an ambulatory care facility. Course Offering: Fall only. Prerequisite: MS120, MS121, MS125, S1130. Corequisites: MS220, MS225

Student Learning Outcomes (SLOs):

Upon successful completion of this course, students will be able to:

1. Demonstrate the ability to practice advanced medical techniques in a lab setting.
2. Demonstrate the ability to act as liaison between the patient and physician.

MS225 MEDICAL ASSISTING SPECIALTIES CLINICAL (1)

This course is an application in an ambulatory care setting of knowledge and specialty procedures gained in MS220 and MS221, which includes demonstrating professional characteristics expected of a beginning practicing medical assistant. Course offering: Fall only. Prerequisites: MS120, MS121, MS125, SI130. Corequisites: MS220, MS221

Student Learning Outcomes (SLOs):

Upon successful completion of this course, students will be able to:

1. Demonstrate the ability to use advanced Medical Assistant knowledge and techniques in an ambulatory setting.
2. Demonstrate professional characteristics expected of a beginning practicing Medical Assistant.

MS292 MEDICAL ASSISTING PRACTICUM (5)

This course provides settings for the application of knowledge and skills gained in the major courses of the Medical Assisting program. Students will apply basic ambulatory patient care concepts and principles with entry-level proficiency in the performance of their duties in the administrative and clinical areas. Course offering: Spring only. Prerequisite: Completion of all technical and related technical requirements in the Medical Assisting Program with a grade of "C" or better and advisor consent. Corequisites: MS210

Student Learning Outcomes (SLOs):

Upon successful completion of this course, students will be able to:

1. Demonstrate professional characteristics expected of a beginning practicing Medical Assistant.
2. Demonstrate ambulatory patient care concepts and principles with entry level proficiency in the administrative area.
3. Demonstrate ambulatory patient care concepts and principles with entry level proficiency in the clinical area.

NU - NURSING

NU101 NURSING ASSISTANT (8-12)

This course prepares students to function professionally and competently as Nursing Assistants under the supervision of the LPN, RN, or MD in such clinical areas as home health, community health, hospitals, clinics, private medical offices, and mental health. Graduates will be able to generate the knowledge and illustrate the skills required to pass the National Nurse Aide Assessment Program Exam which leads to becoming a Certified Nursing Assistant (CNA). Course offering: As needed. Prerequisites: Admission to the Certified Nursing Assistant program, current American Heart Association CPR card for health care providers and EN 100W , MA 095 , and HL 131. Corequisites: HL131

Student Learning Outcomes (SLOs):

Upon successful completion of this course, students will be able to:

1. Identify the principles of prevention, therapy, and rehabilitation for patients of all ages.
2. Distinguish the roles of a Nursing Assistant in a health care team
3. Apply the Nursing Assistant principles and skills learned in a class/lab to the clinical setting.
4. Demonstrate proficiency and knowledge of nursing assistant skills in preparation for the NNAAP (National Nurse Aide Assessment Program) written and practical exam.

NU110 NURSING FOUNDATIONS & BASIC SKILLS (8)

This course covers introductory concepts related to the nursing field. Topics covered are the nursing process, assessment, critical thinking, communication, ethical issues, and practical nursing standards. Students will have the opportunity to practice basic therapeutic nursing interventions that are required of practical nurses in laboratory and clinical settings. Students learn the role of the practical nurse as provider of care, and basic skills necessary to attain and maintain health. Course offering: As needed Prerequisite(s): SI130, PY120, ED220, HL120, HL131, HL150, HL202, SI150 Co-requisites: NU160

Student Learning Outcomes (SLOs):

Upon successful completion of this course, students will be able to:

1. Utilize the nursing process in assessment, planning, implementation, and evaluation.
2. Practice basic therapeutic nursing interventions in a laboratory and clinical setting.
3. Apply problem-solving and critical thinking skills.
4. Apply a variety of interpersonal and communication skills.

NU140 MENTAL HEALTH NURSING (2)

The goal of this course is to provide the student with knowledge in the nursing care of patients with mental health problems throughout the life cycle. The student is provided the opportunity to utilize critical thinking, the nursing process, nursing skills, and theoretical knowledge in a variety of health care settings. Course offering: As needed. Corequisite: PY120.

Student Learning Outcomes (SLOs):

Upon successful completion of this course, students will be able to:

1. Utilize the nursing process in the assessment, planning, implementation, and evaluation, as it relates to mental illness.
2. Practice therapeutic nursing interventions in a laboratory and clinical setting.
3. Apply problem-solving and critical thinking skills in nursing situations.
4. Apply a variety of interpersonal and communication skills as it relates to mental health.

NU160 PHARMACOLOGY FOR PRACTICAL NURSES (4)

The goal of this course is for practical nursing students to acquire pharmacological skills and concepts. The course includes material about the principles of pharmacology, administration of medications, drug classifications, and the effect of medications on each of the body systems. The course prepares the student to administer and monitor the effects of medications. The target populations are students who have been admitted to the Certificate in Practical Nursing program. Course offering: Spring only Prerequisite(s): EN110, MA108, SI130, PY120, ED220, HL120, HL131, HL150, HL202, SI150 Co-requisite: NU110

Student Learning Outcomes (SLOs):

Upon successful completion of this course, students will be able to:

1. Apply the nursing process in relation to administration and evaluation of the therapeutic use of drugs through case studies.
2. Apply problem solving and critical thinking skills.
3. Demonstrate with 100% accuracy methods to safely administer medications to adults and children.
4. Pass a comprehensive medical math calculation test with 85% accuracy.

NU220 ADULT MEDICAL-SURGICAL NURSING (8)

The emphasis of this course is on the application of the nursing process to the care of adult patients experiencing medical-surgical conditions in the health-illness continuum. Concepts covered include endocrine, gastrointestinal, sensory-neuron, cardiovascular, genitourinary, reproductive, musculoskeletal, and integumentary disorders. Special consideration will be given to the geriatric client. Skills include professional roles, critical thinking and guided application of research. Course offering: As needed. Prerequisite: NU110

Student Learning Outcomes (SLOs):

Upon successful completion of this course, students will be able to:

1. Utilize the nursing process in the assessment, planning, implementation, and evaluation of medical-surgical conditions.
2. Practice basic therapeutic nursing interventions in a laboratory and clinical setting as it relates to medical-surgical procedures.
3. Apply problem solving and critical thinking skills in nursing practice.
4. Apply a variety of interpersonal and communication skills in a nursing context.

NU230 MATERNAL/NEWBORN CONCEPTS & SKILLS (3)

This course provides students with the scope of obstetrics including care and assessment of newborns. This course covers theories of maternal health, the birthing process, physiology of pregnancy, maternal-infant bonding, and family dynamics including cultural considerations, ethics, and stress adaptation of children and their families. The focus is on basic health promotion, disease intervention and detection of high risk factors with childbearing families. Course offering: As needed. Prerequisites: ED220, HL120, NU110

Student Learning Outcomes (SLOs):

Upon successful completion of this course, students will be able to:

1. Utilize the nursing process in the assessment, planning, implementation, and evaluation of maternal and newborn care.
2. Practice basic therapeutic nursing interventions in a laboratory and clinical setting as it relates to maternal and newborn needs.
3. Apply problem solving and critical thinking skills as it related to maternal and newborn care.

NU240 PEDIATRIC NURSING CONCEPTS & SKILLS (3)

This course builds on child growth and development from infancy to adolescence. Health problems of each age group are explored in more detail. The role of the practical nurse in meeting the health needs of children in a variety of settings is included. This course focuses on promoting, maintaining, and restoring the health of children and their families. Course offering: As needed. Prerequisites: ED220, HL120, NU110

Student Learning Outcomes (SLOs):

Upon successful completion of this course, students will be able to:

1. Utilize the nursing process in the assessment, planning, implementation, and evaluation as it relates to pediatric care.
2. Practice therapeutic pediatric nursing interventions in a laboratory and clinical setting.
3. Apply problem solving and critical thinking skills in pediatric nursing.
4. Demonstrate a variety of interpersonal and communication skills used in pediatric care.

NU280 NURSING TRENDS (1)

This course focuses on issues and trends within the healthcare industry to include management and leadership styles. This course also covers professional development, employability skills, ethical problems, legal aspects, community resources, local and federal policies, and licensure. Course offering: As needed. Prerequisite: EN110

Student Learning Outcomes (SLOs):

Upon successful completion of this course, students will be able to:

1. Apply problem solving and critical thinking skills to current trends and issues in nursing.
2. Enhance communication and interpersonal skills in the context of the health care industry.

NU292 PRACTICAL NURSING CLINICAL (6)

This course provides students with a clinical setting to practice basic and advanced therapeutic nursing interventions within the scope of an LPN. Selected clinical skills will involve clients/patients/residents of all ages with simple, well-defined problems. Communication, critical thinking, interpersonal, management, and leadership skills and the nursing process will be practiced as students assess and meet the duties of a practical nurse. Students will also lead educational activities that involve adult clients/patients/residents of all ages. Course offering: As needed. Prerequisite: NU220

Student Learning Outcomes (SLOs):

Upon successful completion of this course, students will be able to:

1. Meet local and national standards for practical nurses in performing nursing care.
2. Display professionalism in performing duties of the LPN.
3. Be eligible and prepared to take the NCLEX-PN exam in order to become LPNs or to enter more advanced degree nursing programs.
4. Apply the clinical problem solving process (nursing process) and critical thinking skills within the scope of an LPN.
5. Apply a variety of interpersonal and communication skills used in the health care setting.

OA - OFFICE TECHNOLOGY

OA101 KEYBOARDING APPLICATIONS (3)

This is an introductory course in keyboarding that focuses on the mastery of the keyboard and using correct typing techniques. Basic word processing concepts and applications will be taught including an introduction to proper formatting of memorandums, business letters, reports, and tables. Course offering: As needed

Student Learning Outcomes (SLOs):

Upon successful completion of this course, students will be able to:

1. Demonstrate the ability to key memorandums, letters, reports, tables, and other related items in an acceptable manner.
2. Demonstrate good work habits, acceptable, typing techniques and skill in using the microcomputer and printer.
3. Demonstrate keyboard knowledge by completing a 3-minute timed-writing keying at least 40 words per minute with no more than 5 errors.

OA103 FILING SYSTEMS (3)

This course introduces the basic principles of a records and information management program. Four filing systems (alphabetic, numberic, subject, and geographic) will be emphasized using both manual and electronic methods for storage and retrieval of records. Prerequisite: EN100R Course offering: Fall only

Student Learning Outcomes (SLOs):

Upon successful completion of this course, students will be able to:

1. Index, code, cross-reference, and arrange personal names, business names, and organization names in correct filing order.
2. Store and retrieve records using alphabetic, subject, numeric, and/or geographic methods of filing.
3. Create, maintain, and access a computerized records management database.
4. Demonstrate the procedures for records control and retention, including charge-out systems, electronic files control, and transfer methods.

OA109 BUSINESS MATH USING EXCEL (3)

This course provides students with basic business math skills and the use of Excel software needed in today's jobs. Topics to be discussed are basic math functions, fractions, percent, bank services, payroll, purchasing merchandise, markup and markdown, interest, credit and mortgages, and depreciation. Formerly OA104. Course Offering: As needed

Student Learning Outcomes (SLOs):

Upon successful completion of this course, students will be able to:

1. Prepare bank statement reconciliations.
2. Calculate the components of payroll.
3. Solve simple interest and compound interest problems.
4. Use Excel to solve business problems.

OA130 INFORMATION PROCESSING (3)

This course provides students with basic skills and advanced concepts using word processing software for preparing of business letters, memos, tables, reports, and forms, (including meeting minutes, agendas, itineraries, articles). Speed and accuracy in the preparation of a mailable copy is emphasized. Course offering: Fall only. Prerequisite: OA101

Student Learning Outcomes (SLOs):

Upon successful completion of this course, students will be able to:

1. Demonstrate proper techniques for keying correspondence, including letters, memorandums, reports, tables, and forms.
2. Apply skills in completing projects.
3. Demonstrate proper work attitudes for business.
4. Demonstrate keyboarding knowledge by completing a 5-minute timed-writing keying at least 50 words a minute with no more than 5 errors.

OA210 DATABASE MANAGEMENT SYSTEMS (3)

This course introduces the basic concepts of a database management system. Topics include designing, creating, and using a database; querying a database; maintaining a database; sharing data among applications; and creating forms and reports. Course offering: Fall only. Prerequisites: CS151

Student Learning Outcomes (SLOs):

Upon successful completion of this course, students will be able to:

1. Design, create, and modify database.
2. Design, generate, and modify queries, forms, and/or reports for the input and/or extraction of data.
3. Integrate with other office applications and collaborate and secure data.

OA211 BUSINESS COMMUNICATION (3)

Students learn all the basics of business communication and are provided practice in applying them using many real-world writing forms of communication, to include composing letters, memorandums, emails, reports, proposals, employment communications, and oral presentations. This course teaches students how and when to be concise, in addition to communicating effectively. It prepares students for the job-interview process, writing resumes, and application letters. Formerly OA206, Business Correspondence. Course offering: As needed. Prerequisites: CS151, EN110

Student Learning Outcomes (SLOs):

Upon successful completion of this course, students will be able to:

1. Write effective business memos, letters, and reports.
2. Prepare and deliver effective oral presentations.
3. Demonstrate effective interpersonal communications skills.
4. Communicate orally in one-on-one, small group and large group situations.
5. Develop a practical job search strategy, including writing successful resumes.

OA220 SPREADSHEET SYSTEMS (3)

Spreadsheets, their roles, advantages, and limitations will be covered in this course. Microcomputer usage and standard spreadsheet software will be utilized to provide hands-on applications experience with creating, designing, and setting up, utilizing, and integrating spreadsheets. Course offering: Spring only

Student Learning Outcomes (SLOs):

Upon successful completion of this course, students will be able to:

1. Create, save, retrieve, edit, format, and print an electronic worksheet using formulas, built-in functions, and charts.
2. Create and manipulate electronic spreadsheets databases, templates, and macros.
3. Integrate spreadsheets with other office applications and secure the data.

OA230 ADVANCED INFORMATION PROCESSING (3)

This course provides the student with a review of basic word processing skills and introduces advanced word processing skills, such as macros, merging techniques, graphic capabilities, sorting, fonts, page numbering, headers and footers, tables, footnotes, newspaper and column formats. Course offering: Spring only. Prerequisite: OA130

Student Learning Outcomes (SLOs):

Upon successful completion of this course, students will be able to:

1. Create compound documents by integrating word processing, spreadsheet, database, and/or presentation applications.
2. Apply proper document formats when keying business correspondence--memorandums, letters, reports, tables, and forms.

3. Create and manage documents using teamwork.
4. Demonstrate keyboarding knowledge by completing a 5-minute timed-writing keying at least 60 words a minute with no more than 5 errors.

OA240 MACHINE TRANSCRIPTION (3)

This course provides students with basic legal transcription techniques, the formatting of legal documents, written communications, listening, and decision making skills, which are necessary to work in a legal environment. Course offering: As needed. Prerequisites: EN110, OA130

Student Learning Outcomes (SLOs):

Upon successful completion of this course, students will be able to:

1. Develop the ability to think and use judgment while keying correspondence.
2. Apply correct spelling, grammar usage, and style to documents.
3. Examine and use appropriate reference materials.

OA250 OFFICE PROCEDURES (3)

This is a finishing course for students in the Office Technology Program. It prepares students for work in today's modern office. Topics include: the work environment, workplace technologies, written communication, records, and presentations, customer and employee satisfaction, mail, travel, meetings and conferences, and career. Course offering: Spring only. Prerequisites: EN110, OA101

Student Learning Outcomes (SLOs):

Upon successful completion of this course, students will be able to:

1. Demonstrate professional image, appropriate job attitudes, and interpersonal relationships of the administrative assistant.
2. Work independently and as a member of an internal team.
3. Display skills in obtaining, organizing, evaluating, and managing information.

OA292 OFFICE TECHNOLOGY PRACTICUM (3)

This course provides students with the opportunity to apply their knowledge and skills while working in an office environment. Course offering: As needed. Prerequisite: Permission from advisor or department chairperson.

Student Learning Outcomes (SLOs):

Upon successful completion of this course, students will be able to:

1. Demonstrate appropriate worksite behavior.
2. Demonstrate competence using business office technology, electronic communication skills, software application, and organizational and time management skills.
3. Demonstrate appropriate professionalism, ethical conduct, disposition and communication in an office environment.

OA298 CO-OP/WORK LEARN (3)

Co-Op Work/Learn emphasizes individual skills, knowledge, and attitudes in the stenographic and clerical area through a cooperative arrangement between the school and the employer. Co-Op Work/Learn is an arrangement of bringing relevancy to formal training by providing on-the-job training which is planned and supervised by the school and the employer. The student is paid by the employer while in training. Course offering: As needed

Student Learning Outcomes (SLOs):

Upon successful completion of this course, students will be able to:

1. Develop administrative skills in a workplace environment.
2. Demonstrate competence using business office technology, electronic communication skills, software applications, time management and organizational skills.
3. Demonstrate professionalism and ethical conduct in the work environment.
4. Demonstrate effective human relations skills with co-workers and respect others' differences in culture, race, and ethnicity.

OR – ENGINEERING TECHNOLOGY

OR101 INTRODUCTION TO ENGINEERING TECHNOLOGY (3)

The primary intent of this course is to investigate the entire realm of engineering, its history, professional requirements, ethics, educational requirements, branches, functions and the roles of the engineering technician. This course will prepare students through the integration of technical problem solving, engineering design, ethical issues, teamwork, and communicating to diverse audiences. Course offering: As needed

Student Learning Outcomes (SLOs):

Upon successful completion of this course, students will be able to:

1. Gain an awareness of the connections between engineering and the impact of engineering solutions in a societal and global context.
2. Demonstrate basic knowledge of the techniques, skills, and modern engineering tools necessary in the current civil and mechanical engineering industry.
3. Describe various engineering careers to include skills needed, required educational background, and experience with a focus on architectural engineering.

PI - PHILOSOPHY

PI101 INTRODUCTION TO PHILOSOPHY (3)

This course will review the great philosophical traditions surrounding the eternal questions concerning nature and the human condition. Students will review the great philosophies from Asia and the west in order to understand knowledge, reason and faith. This will challenge students to become more active and engaged ethical citizens by working with their communities. Prerequisites: EN110

Student Learning Outcomes (SLOs):

Upon successful completion of this course, students will be able to:

1. Demonstrate knowledge of philosophical views.
2. Demonstrate a commitment to ethical behavior.
3. Foster respect for diversity.

PS - POLITICAL SCIENCE

PS140 AMERICAN GOVERNMENT (3)

This course provides students with fundamental knowledge about the history and principles of American government. Topics of study include citizenship, political parties, the creation of law and policy, and the functions of the three branches of government. This course also provides essential working knowledge for those seeking a career in government service. It is also appropriate for anyone seeking broader understanding of the relationships among the local, state, and federal governments. Course offering: As needed. Prerequisites: EN100R, EN100W

Student Learning Outcomes (SLOs):

Upon successful completion of this course, students will be able to:

1. Demonstrate an understanding of the basic framework and concepts which define the American system/style of democracy.
2. Explain the historical roots of American government and the events which have affected the development and course of American government.
3. Explain the three branches of government, their basic structure and functions, and how they are expected to change and interrelate with each other.
4. Develop an awareness of the factors and circumstances which may impact the direction and changes to the American system of government.
5. Demonstrate an understanding of Guam's system of government.

PV - PHOTOVOLTAICS

PV101 PHOTOVOLTAICS I (3)

This course will provide an overview of the three basic PV system applications. The course will give the student a basic knowledge of the core concepts necessary to work with all PV systems, including: solar photovoltaic (PV) cells, modules, and system components, load analysis, PV module criteria, and safety. The course will also cover the basics of battery sizing, wire sizing, overcurrent protection, and grounding. Course offering: As needed.

Student Learning Outcomes (SLOs):

Upon successful completion of this course, students will be able to:

1. Describe the basic components of a PV system.
2. Determine the size of a stand-alone inverter.
3. Calculate house load requirements.

PV102 PHOTOVOLTAICS II (3)

This course will review industry best practices to residential and commercial PV solar electric systems to ensure safe, code-compliant design and installation. Hands-on training will cover site analysis, design based on specific site conditions, site specific

safety issues and construction issues. This course will also cover the use of tools and testing equipment. Course offering: Fall only.

Student Learning Outcomes (SLOs):

Upon successful completion of this course, students will be able to:

1. Identify the types of (PV) photovoltaic systems.
2. Calculate the sizing requirements for a stand-alone PV system.
3. Perform installation of a PV system.

PY - PSYCHOLOGY

PY100 PERSONAL ADJUSTMENT (3)

Personal Adjustment invites students to engage in self-discovery and self-improvement in a supportive environment. Students should be willing to examine various personal and interpersonal issues such as self-concept, anger and violence, depression, happiness, love and intimacy, sexuality, moral and ethical development, gender roles, diversity, stress and other problems encountered throughout life. This course encourages students to think about their lives in a deeper and more meaningful way and to choose to live a deliberate life. "The unexamined life is not worth living."--Socrates Course offering: As needed

Student Learning Outcomes (SLOs):

Upon successful completion of this course, students will be able to:

1. Explain and evaluate the importance of personal adjustment and the benefits of self-awareness.
2. Evaluate emotions and the significance of their emotions on self-development.
3. Identify and demonstrate the skills necessary for healthy communication and relationships.
4. Demonstrate and understand the impact of societal expectations on human behavior.
5. Recognize and evaluate the factors affecting individual choices and their effects on one's self and adjustment within society.

PY120 GENERAL PSYCHOLOGY (3)

General Psychology provides an overview of the scientific study of human behavior and experience. Topics include history, methodology, neuroscience, perception, learning, motivation, abnormal behavior, personality theory and other relevant topics. Upon completion, students should be able to demonstrate a basic knowledge of the science of psychology. This course has a service learning component and has been approved as a general education social science elective. Course offering: As needed. Prerequisites: EN110

Student Learning Outcomes (SLOs):

Upon successful completion of this course, students will be able to:

1. State the general principles, theory, ethical considerations and contemporary approaches to psychology.
2. Apply psychology to daily experiences.
3. Achieve the relevant general education course goals.

PY125 INTERPERSONAL RELATIONS (3)

Success in people's lives depends on the interpersonal skills with which they manage their personal and professional relationships. Employers require that people cooperate as a team, work with diverse cultures, embrace change and communicate effectively to get the job done. Course offering: As needed.

Student Learning Outcomes (SLOs):

Upon successful completion of this course, students will be able to:

1. Develop interpersonal and critical thinking skills necessary to become productive members of the workforce in society.
2. Demonstrate the use of appropriate written and oral skills necessary for effective communication.
3. Demonstrate ethical, social, and environmental responsibility.

RE – RENEWABLE ENERGY

RE100 INTRODUCTION TO RENEWABLE ENERGY (3)

This module provides an outline and brief description, including fundamentals, of the different renewable energy technologies: wind, solar, bioenergy, and geothermal energy. It provides a general overview of the technologies and their applications. While these technologies are not fully proven yet, promising research and development is being conducted. The module also discusses common technical and non-technical barriers and issues limiting the wide spread use/dissemination of renewable energy in developing countries. The information in this module is of general interest to explain the basics of renewable energy technologies, to understand their strengths and weaknesses and hence to have a better grasp of the benefits available from, and the barriers faced by, these technologies. Course offering: As needed

Student Learning Outcomes (SLOs):

Upon successful completion of this course, students will be able to:

1. Define the different key renewable energy technologies.
2. Discuss the potential applications for renewable energy technologies.
3. Describe the strengths and weaknesses of the different renewable energy technologies.

SI - SCIENCE

SI051 EARTH SCIENCE (3)

This course is an overall view of the dynamics of our earth relating the cause and effect of the ongoing changes on and in the earth system. An examination of water properties and ocean currents, the earth's atmosphere and weather, the different periods of history of the earth and solar system, and a brief look at the other heavenly bodies in the sky constitute the major items of study. Course offering: As needed

Student Learning Outcomes (SLOs):

Upon successful completion of this course, students will be able to:

1. Demonstrate an understanding of the fundamental concepts of Earth's many systems.
2. Communicate about Earth Science in a meaningful way.
3. Make informed and responsible decisions regarding Earth and its resources.

SI101 INTRODUCTION TO CHEMISTRY (3)

Designed as a broad introduction to chemistry, topics include atomic structure, bonding, gas laws, interpreting the Periodic Table of Elements, stoichiometry, problem-solving, and concludes with an introduction to organic chemistry. This course satisfies science requirements for general education, liberal studies and nursing certification programs. Course offering: As needed. Prerequisites: Satisfactory completion of MA108 , equivalent or higher. Corequisite: SI101L

Student Learning Outcomes (SLOs):

Upon successful completion of this course, students will be able to:

1. Interpret the Periodic Table of Elements.
2. Identify types of chemical reactions.
3. Solve quantitative problems including unit conversions and balance chemical reactions.

SI101L INTRODUCTION TO CHEMISTRY LABORATORY (1)

This course is the laboratory co-requisite for SI101 Introduction to Chemistry. Laboratory sessions provide hands-on experiences with chemicals, equipment and instruments, that reinforce and extend concepts presented in lecture. Course offering: As needed. Prerequisites: Satisfactory completion of **MA108** , equivalent or higher. Corequisite: SI101

Student Learning Outcomes (SLOs):

Upon successful completion of this course, students will be able to:

1. Demonstrate safe conduct in the lab and use of basic chemistry lab equipment.
2. Apply concepts of chemical reactions and equations to experiments and perform qualitative and quantitative problem-solving.
3. Demonstrate ability to write lab reports.

SI102 GENERAL CHEMISTRY WITH LABORATORY (4)

This course is designed to be a general chemistry course for students. Topics covered include the theories, laws, and principles of chemistry including atomic structure, nature of the chemical bond, and stoichiometric considerations of all aspects of inorganic chemistry. This course has a 30 hour laboratory component. Course offering: As needed. Prerequisites: MA161A

Student Learning Outcomes (SLOs):

Upon successful completion of this course, students will be able to:

1. Demonstrate familiarity and basic use of the Periodic Table of the Elements.
2. Apply the scientific method through lab experiments and write lab reports.
3. Apply critical thinking skills to solve quantitative and qualitative chemistry problems.
4. Calculate conversions and balance chemical equations.
5. Identify various types of chemical reactions.

SI103 INTRODUCTION TO MARINE BIOLOGY (4)

This course provides students with an understanding of the general principles of marine ecology. Basic skills for the gathering of ecological data and identification of marine species will be acquired. Students are required to schedule additional field study with instructor. Course offering: Fall & Spring only. Prerequisites: EN100R, EN100W Co-requisite: SI103L

Student Learning Outcomes (SLOs):

Upon successful completion of this course, students will be able to:

1. Describe key chemical, biological, geological, and ecological processes.
2. Identify and classify common marine organisms.
3. Explain anthropogenic factors that affect the marine environment and organisms therein.

SI103L INTRODUCTION TO MARINE BIOLOGY LABORATORY (1)

This course is the laboratory co-requisite for SI103 Introduction to Marine Biology. Laboratory sessions and field trips reinforce and extend basic marine biology concepts, identification of marine organisms, and anthropogenic effects on the marine environment. Course offering: Fall & Spring only. Prerequisites: EN100R, EN100W Co-requisite: SI103

Student Learning Outcomes (SLOs):

Upon successful completion of this course, students will be able to:

1. Describe key chemical, biological, geological, and ecological processes.
2. Identify and classify common marine organisms.
3. Explain anthropogenic factors that affect the marine environment and organisms therein.

SI105 INTRODUCTION TO PHYSICAL GEOLOGY (3)

Introduction to Physical Geology is the science of the earth, the materials that make up the earth and the forces and processes that shape the earth. Topics for this course will include minerals, rocks, earth's internal structure, plate tectonics, geologic structures the rock cycle, and surface/subsurface processes. This course is to be taken concurrently with a laboratory/field course, SI 105L, where students will conduct laboratory and field investigation that will reinforce the course topics and expose students to Guam's complex geologic history. Course offering: As needed. Prerequisite: EN100R, EN100W Co-requisite: SI105L

Student Learning Outcomes (SLOs):

Upon successful completion of this course, students will be able to:

1. Explain how geologic processes shape the earth.
2. Identify basic rock and mineral samples.
3. Explain how geologic processes affect human activities and social economic welfare.

SI105L INTRODUCTION TO PHYSICAL GEOLOGY LABORATORY (1)

This course is the laboratory portion to the course SI 105, Introduction to Physical Geology. Topics for this course will include minerals, rocks, earth's internal structure, plate tectonics, geologic structures, the rock cycle, and surface/subsurface processes. This course is to be taken concurrently with the lecture course SI 105. In this course students will conduct laboratory and field investigation that will reinforce the lecture course topics and expose students to Guam's complex geologic hsitory. Course offering: As needed. Prerequisite: EN100R, EN100W Co-requisite: SI105

Student Learning Outcomes (SLOs):

Upon successful completion of this course, students will be able to:

1. Explain how geologic processes shape the earth.
2. Identify basic rock and mineral samples
3. Explain how geologic processes affect human activities and social economic welfare.

SI110 ENVIRONMENTAL BIOLOGY (4)

This is a comprehensive survey course, which focuses on local environmental issues and concepts. The main emphasis of the course deals with tropical ecosystems that are unique to the Pacific Island regions. In addition to lectures and laboratory work, students will be required to attend field trips on weekends that will reinforce the course topics and expose students to Guam's various ecosystems. This course is offered in a classroom or an online (Internet) format. Students are required to schedule additional field study with instructor. Course offering: As needed. Prerequisites: EN100R, EN100W

Student Learning Outcomes (SLOs):

Upon successful completion of this course, students will be able to:

1. Describe key chemical, biological, ecological, and atmospheric processes that affect organisms, with an emphasis on tropical island environments.
2. Explain the ecological, social and/or economical implications of climate change, conservation and sustainable use of resources, overpopulation, waste management and recycling, as well as reflect on their personal roles in these issues.
3. Demonstrate and integrate knowledge and observations obtained from lectures, labs and field trips in written reports, quizzes and exams.
4. Demonstrate the ability to gather and analyze data, present results graphically, interpret results and form conclusions.

SI122/CJ122 INTRODUCTION TO FORENSIC SCIENCE (4)

This course introduces students to the field of forensic science. Students will be able to identify the various principles, methods and procedures used in the preservation, collection, processing, and investigation of the crime scene as well as identify the various scientific techniques used to evaluate and analyze the evidence to resolve criminal matters. Students will also be familiar with some of the legal and ethical issues in forensic science. Course offering: As needed. Prerequisites: CJ100

Student Learning Outcomes (SLOs):

Upon successful completion of this course, students will be able to:

1. Describe the history and development of forensic science.
2. Identify the role of forensic science within the criminal justice system.
3. Identify the various analytical tools used to evaluate, process, investigate and adjudicate criminal cases.
4. Describe the various scientific techniques used to preserve, collect and analyze evidence.
5. Identify some of the legal and ethical issues in forensic science.

SI141 APPLIED PHYSICS I (4)

An Algebra-based course covering measurement, motion, forces in one (1) dimension, vectors, trigonometry, concurrent forces, work and energy, simple machines, rotational motion, nonconcurring forces, matter and fluids. The course emphasizes physical concepts as applied to an industrial technical field. Course offering: As needed. Prerequisite: MA161A

Student Learning Outcomes (SLOs):

Upon successful completion of this course, students will be able to:

1. Define key terminology used in the physics field.
2. Identify and classify common physical phenomena such as forces, friction, and center of gravity.
3. Summarize common laws and rules of physics from Newton and Kepler and their application to everyday circumstances.
4. Employ basic methods and observations to identify given data graphically or numerically and implement proper procedures to solve problems applying physical rules and formulas correctly.

SI142 APPLIED PHYSICS II (4)

A continuation of SI 141 covering temperature and heat, the gas laws, wave motion and sound, static electricity, direct current, DC sources, magnetism, alternating-current, light, and reflection and refraction. Course offering: As needed. Prerequisite: SI141, MA161A

Student Learning Outcomes (SLOs):

Upon successful completion of this course, students will be able to:

1. Calculate the momentum, impulse, force, and time of contact within a system.
2. Apply and analyze between rotational and translational quantities and equations.
3. Relate and apply density, specific gravity, mass and volume, pressure, area, pressure density, and depth concepts.
4. Identify, relate and apply amplitude, frequency, angular frequency, period, displacement, velocity and acceleration associated with oscillating system.

SI150 INTRODUCTION TO MICROBIOLOGY (4)

This course presents basic principles of microbiology, including the role of microbes in the transmission of disease, the environment and useful applications. Weekly laboratory sessions include training in compound microscopy, practice in aseptic techniques, the use of disinfectants and antimicrobial agents, identification of common microbes using staining and microscopy techniques. This course satisfies the Guam Board of Nursing Examiners' requirement for candidates seeking LPN licensure. This course can also apply toward general education science credits. Course offering: As needed. Prerequisites: SI130, HL120, EN110

Student Learning Outcomes (SLOs):

Upon successful completion of this course, students will be able to:

1. Summarize the historical events that led to development of the field and the taxonomic classification regarding microbial diversity.
2. Demonstrate knowledge of the basic chemistry in laboratory procedures, bright-field microscopy, aseptic techniques, and protocols for identification of microbes and basic microbial and molecular biology.
3. Demonstrate knowledge of microbial pathogenicity mechanisms, chemotherapeutics, drug resistance, disease prevention and the causes and consequences of mutations and genetic engineering on microbes.
4. Summarize the impact of microbes in the environment and useful applications of microbes.

SM - SUPERVISION & MANAGEMENT

SM108 INTRODUCTION TO BUSINESS (3)

This course provides foundational knowledge for students in supervision and management as well as students studying related disciplines in business and computer science. Students will study resume preparations, ethics and social responsibility, the private enterprise system, economic challenges in a global market, entrepreneurship, goods and services distribution, e-commerce transactions, basic management concepts A-Z, technology management, financial statements, federal reserve system, and career opportunities. The central theme in this course is technology and e-commerce: "Clicks and Mortar" business concepts and practices stressing real world, real time, and real interactive business applications on the Internet via student interactive exercises and supported by text-driven CD-ROM. Formerly OA108. Course offering: As needed

Student Learning Outcomes (SLOs):

Upon successful completion of this course, students will be able to:

1. Evaluate the private enterprise system and determine the roles of business, competitors, and entrepreneurs operating within the system.
2. Construct the stages in the development of management ethical standards.
3. Summarize in writing ideas and feelings about applied business concepts.

SM205 PURCHASING (3)

This course focuses on the broad spectrum of retailers, both large and small selling either merchandise or services and making key management decisions to provide value to their customers and developing a long-term advantage over their competitors. Key strategic issues are examined in developing a retail strategy with an emphasis on the financial considerations and store management issues. The entire course is organized around a model of strategic decision-making and subsequent chapters are related back to this strategic framework. The procurement cycle is studied with emphasis on vendor partnerships, negotiations, pricing analysis, and policy considerations. Course offering: Fall only

Student Learning Outcomes (SLOs):

Upon successful completion of this course, students will be able to:

1. Understand the impact of purchasing and supply chain management on the competitive success and profitability of modern organizations.
2. Gain an appreciation of the ethical, contractual, and legal issues faced by purchasing and supply chain professionals.
3. Demonstrate an understanding of the purchasing cycle, various types of purchasing documents, and types of purchases.

SM208 PERSONNEL SUPERVISION (3)

This course is designed to acquaint the student with the techniques involved in supervising people and the duties and responsibilities of a supervisor; the focus of the course is on the leading and directing function; this theme is studied throughout the course. Students will study and apply communication, motivational principles, critical thinking, and problem solving techniques. In addition, students will learn how to manage work groups and resolve employee conflicts and create a productive work climate. Formerly OA208. Course offering: As needed.

Student Learning Outcomes (SLOs):

Upon successful completion of this course, students will be able to:

1. Demonstrate knowledge and skills in the area of personnel supervision.
2. Identify employee needs and apply motivational skills to address them.
3. Summarize in writing ideas and feelings about applied supervision concepts.

SM211 E-COMMERCE MANAGEMENT (3)

This course is designed to help current and future managers better direct the E-commerce process by integrating business models, commerce, and Internet technology. The integration of text and cases will help students connect theory and real-world situations. Case study provides students with an in-depth analysis of well-known companies (i.e. Amazon.com, eBay and Boo.com) that have developed into e-successes or e-failures. Text and cases will present both the benefits and drawbacks of new ideas. Course offering: Spring only

Student Learning Outcomes (SLOs):

Upon successful completion of this course, students will be able to:

1. Assess “customer needs” business websites.

2. Differentiate four Internet business models-Business-to-Business (B2B), Business-to-Consumer (B2C), Consumer-to-Consumer (C2C), and Consumer-to-Business (C2B).
3. Summarize in writing ideas and feelings about applied e-commerce management concepts.

SM215 INTERNATIONAL MANAGEMENT (3)

This course teaches students the managerial process in a global context and illustrates how culture affects the managerial process. Students will study international strategic planning, organizing global structures, effective directing, leading, international human resources management, cross-cultural business practices, negotiations, leadership, decision making, motivation, communication process sensitive to verbal and non-verbal languages, and controlling operation results against international cross-cultural performance standards. Course offering: As needed

Student Learning Outcomes (SLOs):

Upon successful completion of this course, students will be able to:

1. Develop strategies for sustaining international business competition in a global setting.
2. Discuss cross-cultural business ethics and corporate social responsibility in subsidiary assignments.
3. Summarize in writing ideas and feelings about applied international management concepts.

SM220 MANAGEMENT SKILL DEVELOPMENT (3)

This is a course in the development and application of fundamental skills needed for the successful practice of management. The focus of the course is on the goals and objectives formulated from the firm's mission statement. The student will concentrate on the Planning and Organizing functions. In addition, the student will apply the control function on the firm's performance against its strategic plan. Policy considerations drive the theme of this course. Course offering: As needed

Student Learning Outcomes (SLOs):

Upon successful completion of this course, students will be able to:

1. Examine and interpret the traditional four functions of management: planning, organizing, leading, and controlling.
2. Construct and apply the eight-steps used in structured decision making process.
3. Summarize in writing ideas and feelings about applied management concepts.

SM225 LEADERSHIP (3)

This course uses a unique three-pronged approach of theory, application, and skill development. Students will cover all traditional theories A-Z along with cutting-edge leadership topics. Leadership study allows students to expand and focus their supervision and management skills by concentrating and emphasizing the importance of leadership. Applications develop critical thinking about the concepts—a much sought after learning outcome. In addition, proven skill-building exercises foster leadership skills that can be used in professional and personal lives. Course offering: Fall only

Student Learning Outcomes (SLOs):

Upon successful completion of this course, students will be able to:

1. Describe via reflective narratives their experiential learning in Service Learning.
2. Differentiate the four major stages of group development and the appropriate leadership style required at each stage.
3. Summarize in writing ideas and feelings about applied leadership concepts.

SM230 BUSINESS LAW APPLICATIONS (3)

This course is an introduction to the substantive law that governs American commerce, state and federal statutes and traditional Common Law principles. Uniform Commercial Code (UCC), and the Restatements of the Laws form the foundation upon which the following legal principles are presented: contract law, agency law, partnership and corporate law, real and personal property law, negotiable instruments, and secured transactions. Special emphasis, however, is placed on Cyber law (laws governing Internet transactions) as it applies to e-commerce transactions such as e-contracts; intellectual property rights; online issues relating to copyrights, trademarks, patents, and trade secrets; privacy rights in the online world; cyber law court jurisdictional issues; and cyber crimes (cyber theft, cyber identity theft, cyber stalking, cyber hacking, and cyber terrorism). This course is for anyone contemplating a career in business and anyone interested in the legal requirements governing business decisions and activities. Course offering: As needed

Student Learning Outcomes (SLOs):

Upon successful completion of this course, students will be able to:

1. Discuss the law of contracts as it relates to offers/acceptances, consideration, and competency.
2. Identify the key elements of intentional, negligence, and strict liability torts.
3. Summarize in writing ideas and feelings about applied business law concepts.

SM240 EMPLOYMENT & LABOR LAW (3)

This course introduces Employment and Labor Law for the non-legal professional in management and labor relations. The course emphasizes employment, labor, and social issues in the work environment as they cover federal and state law governing employer/union and employee/employer relationships. The student will learn how daily supervisory and management decisions made within the context of employment and labor law can have far-reaching consequences in their firm's legal liabilities. This course provides the knowledge and tools for SM graduates to make management decisions that eliminate or minimize their firm's liability. Course offering: Fall only

Student Learning Outcomes (SLOs):

Upon successful completion of this course, students will be able to:

1. Discuss the history of American labor unions and its impact on the enactment of federal labor laws.
2. Explain how Title VII of the Civil Rights Act protects covered employees prohibiting any discrimination based on race, color, religion, sex or national origin.
3. Summarize in writing ideas and feelings about applied labor and employment law concepts.

SM245 ETHICS & STAKEHOLDERS MANAGEMENT (3)

This course uses cutting-edge research along with case histories to help students understand the relationships between business and the society stakeholders. The managerial perspective of this course emphasizes the twin themes of stakeholders and ethics. Students are shown how to integrate ethical consideration into their entire decision-making. The course employs a stakeholder management framework that emphasizes the firm's social and ethical responsibilities to both internal and external stakeholders. Course offering: Spring only

Student Learning Outcomes (SLOs):

Upon successful completion of this course, students will be able to:

1. Describe and explain actions or strategies that management may take to improve a firm's ethical climate.
2. Describe ethical standards in management and identify its role in contemporary business practices.
3. Summarize in writing ideas and feelings about applied ethics and stakeholder concepts.

SM298 CO-OP/WORK-LEARN FOR SUPERVISION & MANAGEMENT (1-6)

The Cooperative Education program provides an opportunity to qualified associate degree seeking students to receive credit and paid work experience related to Supervision and Management. Prerequisites: SM108, SM208, & SM220. Course offering: As needed

Student Learning Outcomes (SLOs):

Upon successful completion of this course, students will be able to:

1. Obtain supervised work experience to develop skills necessary to succeed in supervision/management positions.
2. Develop and reinforce the knowledge of supervisory theory and management principles as applied to the challenges of a business position.
3. Train subordinates in supervision/management theory and practices.
4. Apply the practice of professional business ethics related to the moral and social responsibilities of a supervisory/management position.
5. Demonstrate effective human relations skills with co-workers and subordinates according to the expectations of a business supervisor/manager.
6. Demonstrate planning, organizing, directing, and controlling skills needed for success supervising/managing within a business environment.

SO - SOCIOLOGY

SO099 STUDENT SUCCESS WORKSHOP (3)

Student Success provides a strong educational component to the Adult High School Program. The course draws connections between students' academic environment and the students' future in the world of work. Students will learn basic study skills for academic success. The course will encourage students to conduct activities that enhance self-concept and that promote the development of goals. In addition, the students will develop employability skills. The course will allow students to explore career opportunities and to expand their knowledge of the workplace. All Adult High School students are required to complete this requirement through successful course participation or demonstrated mastery of the identified skills. Formerly SP099. Course offering: As needed.

Student Learning Outcomes (SLOs):

Upon successful completion of this course, students will be able to:

1. Evaluate current study skills and obtain study skill techniques for academic success.
2. Assess interests, values, abilities, and skills and apply results of occupational choices.

3. Develop educational and career goals.
4. Acquire skills necessary for locating, evaluating, and interpreting information about career opportunities for employment.
5. Understand and identify the elements of team-building, problem-solving decision-making, and personality dynamics as they relate to the workplace environment.

SO110 INTRODUCTION TO COLLEGE LIFE (3)

This course is designed to enhance students' ability to survive and prosper in the college environment. It includes a survey of academic rights and responsibilities, Guam Community College resources and organization program planning, study techniques, preparing for and taking tests, and interest inventories to assist in career planning. Formerly SP110. Course offering: As needed

Student Learning Outcomes (SLOs):

Upon successful completion of this course, students will be able to:

1. Explain the academic rights and responsibilities of a college student.
2. Demonstrate skills needed to successfully study and pass tests.
3. Demonstrate an understanding of various careers and which ones match interests and abilities.

SO130 INTRODUCTION TO SOCIOLOGY (3)

Sociology is the scientific study of how people behave in groups and the rules that guide group behavior. Everyone is a member of societal groups and people experience different kinds of relationships and play multiple roles in groups. This course examines those groups, people's individual roles, interpersonal relationships, cultures, and families. This knowledge is helpful to everyone including managers and professionals in any field. This course is a required general education core course for all associate degree programs. Course offering: As needed. Prerequisites: EN100R, EN100W

Student Learning Outcomes (SLOs):

Upon successful completion of this course, students will be able to:

1. Identify how societies instill values in individuals, families and groups.
2. Demonstrate familiarity with other societies objectively utilizing the sociological imagination.
3. Contrast the four primary theoretical sociological perspectives.
4. Explain various degrees of poverty and inequality to include why these patterns continue to exist generation after generation.

SS - SOCIAL SCIENCES

SS063 AMERICAN GOVERNMENT (3)

This course deals with the foundations of democracy in America, examining the operation of the legislative, executive, and judicial branches of government at the federal, state, and local levels. Topics covered include rights and responsibilities of citizenship, voting, political parties, interest groups, the US Constitutions (including the Bill of Rights), bureaucracy, national policies relating to foreign policy, taxation, spending priorities, government regulations, and entitlement. Course offering: As needed

Student Learning Outcomes (SLOs):

Upon successful completion of this course, students will be able to:

1. Explain the United States constitutional form of government.
2. Describe the political process to include voting, political parties, and interest groups.
3. Explain how laws are created within the United States.

SS078 WORLD GEOGRAPHY (3)

This course deals with the geography of the world. It encompasses a detailed examination and understanding of the location of the countries of the world, and the world's major geographical regions and landmarks. An understanding of the different climatic zones and weather regions is also covered in this course. Course offering: Spring only

Student Learning Outcomes (SLOs):

Upon successful completion of this course, students will be able to:

1. Locate and identify all countries and their capitals around the world.
2. Locate and identify all oceans, major rivers, mountain ranges and deserts.
3. Locate and identify major population groups around the world.

SS081 US HISTORY I (3)

This course traces the founding and development of the United States of America from early influences of Pre-Columbian Indians and European societies until the end of the Civil War Reconstruction era. The objective is to examine and evaluate the political, social and economic development of the United States. Course offering: Fall only

Student Learning Outcomes (SLOs):

Upon successful completion of this course, students will be able to:

1. Demonstrate knowledge of U.S. history from the foundation of the colonies ending with the Civil War Reconstruction.
2. Foster respect for the diverse cultures that make up the Unites States.
3. Demonstrate responsible civic behavior.

SS082 U.S. HISTORY II (3)

U.S. History II will analyze the causes and consequences of industrialization and America's growing role in the world. Students will study the goals and accomplishments of the Progressive movement and the New Deal. Students will also learn about the various factors that led to America's entry into world wars as well as their consequences on American life. Finally, students will study the important economic and political changes during the Cold War, including the Civil Rights movement, and recent events and trends that have shaped modern-day America. Course offering: Spring only

Student Learning Outcomes (SLOs):

Upon successful completion of this course, students will be able to:

1. Demonstrate knowledge of U.S. history from the time of westward expansion to the modern era.
2. Foster respect for the diverse cultures that make up the Untied States.
3. Demonstrate responsible civic behavior.

SS083 WORLD HISTORY I (3)

This course explores World History from a global perspective. After examining the rise of civilizations in the Middle East and in Asia, the course will cover the development of societies-traditional and modern-in Asia, the Middle East and Africa, Europe, and the Americas. Course offering: As needed

Student Learning Outcomes (SLOs):

Upon successful completion of this course, students will be able to:

1. Develop an understanding of the basic principles and theories involved with world civilizations in the Middle East, Asia, Africa, Europe, and the Americas.
2. Apply principles and theories to major events related to the rise and development of civilizations
3. Develop an appreciation of world civilizations.

SS084 WORLD HISTORY II (3)

This course is a continuation of World History I, covering the development of societies-traditional and modern-Europe and the Americas on the influence of great personalities on world history. Course offering: As needed

Student Learning Outcomes (SLOs):

Upon successful completion of this course, students will be able to:

1. Develop an understanding of the basic principles and theories involved with traditional and modern societies of Europe and the Americas.
2. Apply principles and theories to major events related to the influence of great personalities on world history.
3. Develop an appreciation of world civilizations.

SS091 MULTICULTURAL WORKPLACES (3)

This course is designed to prepare students to be successful through the development of interpersonal skills and cultural awareness to work productively with all people. Module One: Multicultural workplace, values, human relations, attitude and stress management. Module Two: Organizational chart, productivity, group development, Asian values and ethics. Module Three: Effective communication, cross-cultural communication, developing good relations with one's supervisor, conflict management. Course offering: As needed.

Student Learning Outcomes (SLOs):

Upon successful completion of this course, students will be able to:

1. Complete various types of job applications, produce a written resume, and practice interview skills.
2. Demonstrate appropriate workplace attire, positive attitude, work ethics, initiative, and assume responsibility.
3. Describe major local and regional cultural groups and their values.
4. Practice enhanced human relation skills related to the workplace.
5. Demonstrate effective communication and conflict resolution skills.

SU - SURVEYING

SU100 SURVEYING DRAFTING (3)

This course deals with typical job responsibilities of an office draftsperson or survey party chief in completing a graphic description of survey fieldwork. These descriptions/ plans result from a great variety of engineering fieldwork requiring diverse methods of graphic resolution. Course offering: As needed

Student Learning Outcomes (SLOs):

Upon successful completion of this course, students will be able to:

1. Discuss the roles of office draft persons or survey party chiefs.
2. Define common terminology in the surveying drafting career.
3. Explain the diverse engineering fieldwork and methods of graphic resolution used.

SU101 SURVEYING PROBLEMS I (3)

This is a mathematics course designed to give the student an understanding of the fundamentals of basic survey computation. Emphasis is placed on basic arithmetic, trigonometric and geometric operations pertaining to traverse, triangulation and general survey calculation. Course offering: As needed

Student Learning Outcomes (SLOs):

Upon successful completion of this course, students will be able to:

1. Demonstrate an understanding of basic mathematics needed for survey computations.
2. Apply basic arithmetic, trigonometry and geometric operations to given surveying problems.
3. Discuss and identify solutions to various surveying problems encountered in the work setting.

SU230 ADVANCED SURVEYING (3)

This course will cover advanced topics in surveying including highway and construction surveying, property and legal issues in boundary surveying, concepts of elementary geodetic surveying, and an overview of Global Positioning Systems (GPS) as applied to surveying for centimeter accuracy measurement. Course offering: As needed. Prerequisite: CE222

Student Learning Outcomes (SLOs):

Upon successful completion of this course, students will be able to:

1. Demonstrate proficiency in the mathematical computations of horizontal and vertical surveys including the process of laying out horizontal and vertical curves.
2. Apply proper survey processes in construction surveys and layouts.
3. Demonstrate an understanding of boundary surveying and the legal aspects of property surveying.
4. Analyze boundary and property survey problems using applicable survey methods.
5. Demonstrate understanding of concepts of geodetic and GPS surveying.

SU240 BOUNDARY LAW I (3)

This course introduces the concepts of boundary control and legal principles. Topics covered include proportionate measurement, rights in land, junior/senior title rights, retracement of original surveys, deed first/survey first, common and case law, ranking/prioritizing evidence, controlling monuments and corners, error in legal descriptions, and plats and case studies. Course offering: As needed

Student Learning Outcomes (SLOs):

Upon successful completion of this course, students will be able to:

1. Demonstrate an understanding of boundary control and legal principles to include identification of error in legal descriptions.
2. Discuss legal principles such as deed/first/survey first, common and case law.
3. Define the basic elements of a boundary survey and the proper sequence of events/actions.
4. Evaluate boundary evidence and make decisions based on this ranking.
5. Identify controlling corners and boundaries.

SU241 BOUNDARY LAW II (3)

This course is a continuation of Boundary Law I and covers the subjects of evidene and procedures for determining real property boundaries. Statutes and case law, conflicting evidence, proper methods and procedures for collecting evidence, riparian rights, surface and subsurface rights and eminent domain are studied in detail. Boundary agreements and legal instruments prepared by the land surveyor are introduced. The role of the land surveyor as an expert witness is presented. Course offering: As needed. Prerequisite: SU240 and permission of Advisor.

Student Learning Outcomes (SLOs):

Upon successful completion of this course, students will be able to:

1. Explain in detail the subjects of evidence and procedures used for determining real property boundaries.
2. Demonstrate proficiency of reading legal instruments prepared by land surveyors.
3. Describe the surveyor's role in court cases.
4. Write a legal and technical description and prepare a surveyor's report.

SU250 INTRODUCTION TO GEOGRAPHIC INFORMATION SYSTEMS (3)

This course will provide students with basic knowledge of Geographic Information Systems (GIS) (e.g., sources of GIS data, various data models). Special emphasis will be given to the manipulation of digital spatial vector data with application to cadastral surveys. One of the objectives of the course is to provide students with hands on experience with GIS software and hardware components. The course emphasizes practical GIS skills. Course offering: As needed

Student Learning Outcomes (SLOs):

Upon successful completion of this course, students will be able to:

1. Describe the fundamental concepts of GIS and the major functionality contained within the ArcGIS software.
2. Explain the GIS analytical process and be proficient with a variety of ArcGIS tools to solve realistic problems.
3. Demonstrate an understanding of the basics of geodatabase and the more advanced functionality that makes the geodatabase such a powerful data model.
4. Design presentation-quality maps and create a person geodatabase.

SU251 ADVANCED GEOGRAPHIC INFORMATION SYSTEMS (3)

This course is a more advanced study of Geographic Information Systems (GIS) with particular emphasis on manipulation and analysis of raster data. This course will also provide introduction to ArcGIS Spatial Analyst and 3D Analyst. Course offering: As needed. Prerequisite: SU250

Student Learning Outcomes (SLOs):

Upon successful completion of this course, students will be able to:

1. Produce and control raster data using ArcGIS Spatial Analyst.
2. Work within the new ArcGIS geoprocessing environment to create, execute, and automate spatial analysis work flows.
3. Analyze three-dimensional modeling using ArcGIS 3D Analyst software.
4. Create realistic models by draping aerial photographs over surfaces and displaying two-dimensional features in three dimensions.

SU280 SPECIAL TOPICS IN GEOGRAPHIC INFORMATION SYSTEMS (3)

This course will introduce students to the applications of Geographic Information Systems (GIS) in cadastral and land information systems and in land use planning. Geographic data is increasingly important in understanding society and the environment. Using advanced tools and software, students will have an opportunity to focus on local and global planning problems. Course offering: As needed. Prerequisite: SU250

Student Learning Outcomes (SLOs):

Upon successful completion of this course, students will be able to:

1. Produce and manipulate cadastral data and create parcel data using the Survey Analyst Extension and the Cadastral Editor tools in the ArcGIS software.
2. Apply Survey Analyst GIS tools on cadastral datasets and perform analysis of these datasets to ensure survey accuracy.
3. Use ArcGIS tools to address real-world social, economic, and environmental planning problems.

SU292 SURVEYING PRACTICUM (1)

This course covers the application of field and office techniques related to the lessons covered in the surveying and drafting courses. Students will do actual field and office survey work to learn proper use of surveying and related instruments including computers and data collectors. Course offering: As needed. Prerequisite: CE222

Student Learning Outcomes (SLOs):

Upon successful completion of this course, students will be able to:

1. Demonstrate proficiency in the operations of typical survey instruments including electronic total stations, levels, and data collectors.
2. Apply proper field operations in traversing, leveling, and topographic surveying.
3. Demonstrate proficiency in the preparation of survey drawings using computer aided surveying software.
4. Transfer data to and from survey instruments, data collectors, and computers.
5. Demonstrate an understanding of errors and error propagation field work.

TH – INTRODUCTION TO THE THEATER

TH101 INTRODUCTION TO THE THEATER (3)

This course is designed to provide a basic introduction to the study of theater. It explores theater as a fine art and how theater practitioners work. Course lectures include theater history and production practices. Attendance at a local theater production is required. Course offering: As needed.

Student Learning Outcomes (SLOs):

Upon successful completion of this course, students will be able to:

1. Demonstrate an appreciation for theater as a fine art.
2. Demonstrate a clear understanding of theater history.
3. Demonstrate knowledge of production practices.

VC - VISUAL COMMUNICATIONS

VC101 INTRODUCTION TO VISUAL COMMUNICATIONS (3)

This course introduces graphic media principles and concepts. The course emphasizes the historical development and current uses and applications of the various visual and audio processes in digital media production. Course offering: As needed

Student Learning Outcomes (SLOs):

Upon successful completion of this course, students will be able to:

1. Use the vocabulary of graphic design to demonstrate an understanding of standard graphic visual concepts, light and color, perception, trends, forms, and delivery of digital media.
2. Identify the six typeface families and demonstrate how each one expresses a mood.
3. Find and recognize reference art to demonstrate understanding of visual graphic concepts and uses.
4. Distinguish basic visual processes, physiological aspects and sensual and perceptual theories.
5. Develop an understanding of injurious imaging, including cartoons, prejudicial thinking, stereotyping.
6. Know the ethical and legal standards regarding the uses of graphic design and images and computer applications.

VC102 DESIGN PRINCIPLES AND ELEMENTS (3)

This course will provide graphic artist students with basic knowledge ability to create effective graphic design. Formerly VC101. Course offering: As needed. Prerequisites: VC125, VC126

Student Learning Outcomes (SLOs):

Upon successful completion of this course, students will be able to:

1. Apply procedures to solve design problems while considering the factors of materials, tools (computer, camera), style, choice and creative license.
2. Recognize and apply the elements of graphic design including space, line, shape, value, texture and color space and balance, contrast and variation.
3. Use basic analog (drawing) and digital (computer) methods to create graphic design projects.
4. Select effective typography and text composition in graphic design.
5. Think conceptually about the meaning of text and image in combination.
6. Demonstrate an understanding of three-dimensional design.

VC125 DIGITAL GRAPHICS: PHOTOSHOP® (3)

This course is designed to provide students with fundamental knowledge and skills with the industry-standard raster image editing tools of Adobe PhotoShop to produce graphics for print and for the Web. Formerly VC121. Course offering: Fall & Spring

Student Learning Outcomes (SLOs):

Upon successful completion of this course, students will be able to:

1. Understand and use the vocabulary of PhotoShop activity.
2. Apply the principles of good graphic design to computer graphic projects.
3. Navigate with the tools of Photoshop to create and edit graphics for print and for the web.
4. Employ basic photo and scan editing and corrections including cloning, healing and patching.
5. Use layers, masks paths and channels to produce graphic images.
6. Differentiate between vector and raster (bit-map) graphics.
7. Prepare images for two-color printing.
8. Produce and print consistent color.
9. Optimize web images and image maps.

VC126 DIGITAL GRAPHICS: ILLUSTRATOR® (3)

This course presents the use of the industry-standard vector image creation tools of Adobe Illustrator to produce graphics and typography for print and for the Web. Using Illustrator is profoundly necessary in digital graphics production. Formerly VC122. Course offering: Fall & Spring

Student Learning Outcomes (SLOs):

Upon successful completion of this course, students will be able to:

1. Apply the principles of good graphic design to create artwork required by computer graphic projects.
2. Work with type including creation of type, type masks, formatting and wrapping text.
3. Understand the tools and procedures of Illustrator and navigate to the proper tool to create and edit graphics for print and for the web.
4. Understand and use the common vocabulary of Illustrator.
5. Combine Illustrator graphics and PhotoShop images.
6. Draw cylinders and boxes and use gradients and brushes to draw shapes.
7. Create images for web publication including exporting in GIF and JPEG formats.

VC131 DESKTOP PUBLISHING (3)

This course is designed to provide students with the basic knowledge and skills for desktop publishing (DTP). The application used in the course is QuarkXpress, an industry standard. Course offering: Spring only. Prerequisite: VC102

Student Learning Outcomes (SLOs):

Upon successful completion of this course, students will be able to:

1. Understand the standard vocabulary of desktop and print publishing.
2. Use application tools and functions common to desktop publishing and page layout software.
3. Locate and choose fonts needed for DTP projects.
4. Employ palettes and apply functions common to DTP including color, layout style sheets and measurements.
5. Setup up documents using forms, rules and tables.
6. Distinguish between effective usage of inkjet and laser printers.
7. Use efficient digital project file management.
8. Practice efficient working techniques.

VC135 INDESIGN® (3)

Students will learn to use Adobe InDesign, a powerful desktop publishing tool that can be used with other professional graphics applications to produce professional-quality, full-color output on high-volume color printing presses or a wide range of output devices and formats, such as desktop printers, PDF files, and HTML files. Course offering: As needed. Prerequisites: VC102 and VC131

Student Learning Outcomes (SLOs):

Upon successful completion of this course, students will be able to:

1. Use Adobe InDesign® publishing software to complete page layouts and designs for a variety of professional publishing purposes.
2. Utilize professional graphic design, layout, and typography techniques.
3. Import existing files from word processing and raster and vector graphics programs into the publishing program.
4. Produce sophisticated layouts including text and graphic images.

VC141 WEB DESIGN (3)

Students learn the basics of planning, constructing, testing, publishing, marketing and maintaining a web site in this course. They also learn to use Dreamweaver to actually design a web site. Course offering: As needed. Prerequisite: VC102

Student Learning Outcomes (SLOs):

Upon successful completion of this course, students will be able to:

1. Produce a simple multi-page web site.
2. Use effective web typography.
3. Upload web sites and modifications to web servers.
4. Employ current practices of web site graphics.
5. Create Cascading Style Sheets.
6. Write simple HTML coding.
7. Create rollover buttons.

VC145 MACROMEDIA SUITE (3)

This course introduces Flash and advances skill with Fireworks and Dreamweaver to develop animations and interactive actions for web sites. Formerly VC142. Course offering: As needed. Prerequisites: VC102, VC141

Student Learning Outcomes (SLOs):

Upon successful completion of this course, students will be able to:

1. Create web site photo viewers.
2. Demonstrate advanced design techniques with Fireworks.
3. Include movies and filmstrips in web pages.
4. Design and create animations including animated maps with Flash.
5. Employ Computer-Generated Imagery (CGI) and other interactive actions.

VC161 VIDEO I (3)

This course introduces the basic video production process including conceptualization, storyboarding, shooting and editing. Course offering: As needed

Student Learning Outcomes (SLOs):

Upon successful completion of this course, students will be able to:

1. Produce simple video productions from planning through editing.
2. Plan and create storyboards for video productions and shoot video according to plans.
3. Operate a variety of video cameras and use a variety of camera moves with hand-held and studio cameras.
4. Understand and use the common vocabulary of video productions.
5. Use and control natural and artificial lighting.
6. Demonstrate use of a variety of industry-standard shots.
7. Employ a variety of microphones and audio mixers used in audio recording.
8. Employ simple computer digital editing including titling and audio dubbing.

VC165 DIGITAL EDITING: FINAL CUT PRO (3)

This course presents video editing using a powerful and well-accepted editing application. This course is advanced editing. Formerly VC162. Course offering: As needed

Student Learning Outcomes (SLOs):

Upon successful completion of this course, students will be able to:

1. Capture video and import audio into the computer to establish the content for the editing process.
2. Apply animation to incorporate motion to still images.
3. Add and edit voice and music tracks.
4. Understand and use the common vocabulary of digital video editing.
5. Use the tools, commands and procedures of Final Cut Pro.
6. Cut up shots and build video sequence of shots.
7. Create titles and credits in a variety of styles.
8. Convert video to various final export formats including DVD and Web.

VC172 IMAGING CONCEPTS AND ELEMENTS (3)

Because a picture is worth a thousand words, students learn what it takes to get the perfect picture in this course. This three-part course covers the tried-and-true techniques in capturing the right image from anyone's camera, the different processes in digitizing it into the computer, and the various methods in manipulating it to anyone's heart's desire. Course offering: As needed

Student Learning Outcomes (SLOs):

Upon successful completion of this course, students will be able to:

1. Understand and use the common vocabulary and terms of cameras, scanning and digital imaging.
2. Recognize and apply the elements of effective aesthetic composition to produce good photographs with cameras.
3. Use camera controls of focus, shutter speed and f-stop to vary light entering the camera for effective photography.
4. Utilize studio lighting principles for basic portraiture and small product photography.
5. Scan photos, negatives, slides and printed images, including text, to produce digital images.
6. Employ basic digital photo and image editing using the software included with scanners and other simple computer editing applications.

VC201 PROJECT MANAGEMENT AND MARKETING SOLUTIONS (3)

This course integrates all the skills and concepts acquired in the required 100 level courses. Course offering: As needed. Prerequisites: MK123, MK224, VC101, VC102, VC125, VC126, VC131, VC141, VC161

Student Learning Outcomes (SLOs):

Upon successful completion of this course, students will be able to:

1. Use cooperative teamwork for visual communications problem solving and production.
2. Research potential products identifying customers to be targeted.
3. Conceptualize and create visual messages for clients and customers using print, video and web media.

VC298 COOPERATIVE EDUCATION/WORK-LEARN (3)

The Work Experience program provides an opportunity for qualified students to receive credit and work experience in the Visual Communications field. Students serve under qualified professionals to practice skills and gain insights in the industry. Students will be employed in the private and/or government (non-education) arena. College regulations regarding Co-Op Work Learn apply. In the event Co-op/Work-Learn cannot be taken, the student, with postsecondary departmental approval, may take any 200 level Marketing course or a Special Project in lieu of Co-op/Work-Learn. Coure offering: As needed. Prerequisites: VC101, VC102, VC125, VC126, VC131, VC141, VC161, MK123, MK224, and permission of the Department Chair and the Work Experience Coordinator.

Student Learning Outcomes (SLOs):

Upon successful completion of this course, students will be able to:

1. Develop visual communications skills in a dynamic environment.
2. Work harmoniously with co-workers, clients, and supervisors.
3. Exhibit ethical behavior at work.
4. Communicate more effectively.
5. Exhibit professionalism.
6. Conceptualize and create visual messages for the host using print, video and web media.

WA - WATER

WA200 WATER SUPPLY AND HYDROLOGY (3)

This course is designed to prepare persons working in the waterworks sector to foresee, plan, and implement strategies for maintaining environmental and water quality as outlined in the United States Environmental Protection Agency (USEPA's) Safe Water Drinking Act, Water Pollution Control Act, and National Environmental Policy Act. Course offering: As needed. Prerequisites: WT100, MA095

Student Learning Outcomes (SLOs):

Upon successful completion of this course, students will be able to:

1. Demonstrate understanding of waterworks specific nomenclature, regulatory standards, and academic subject matter for operator licensing examinations.
2. Identify waterworks treatment modes and their methods for operation.
3. Predict the efficiency of treatment methods using waterworks problem solving and/or troubleshooting techniques.
4. Recognize and utilize safe practices for operating various equipment within a waterworks treatment facility, or its distribution or collections system.
5. Recognize and demonstrate understanding of the biological, chemical, microbial, and physical relationships within a waterworks treatment facility or its distribution or collections system.

WA210 TREATMENT PROCESSES AND PROCEDURES (3)

This course focuses on potable and waste water treatment processes using waterworks troubleshooting techniques. WA210 is designed to prepare persons working in the waterworks sector to foresee, plan, and implement strategies for maintaining environmental and water quality as outlined in the USEPA's Safe Water Drinking Act, Water Pollution Control Act, and National Environmental Policy Act. Course offering: As needed. Prerequisites: WT100, MA095

Student Learning Outcomes (SLOs):

Upon successful completion of this course, students will be able to:

1. Recognize and understand potable and waste water treatment processes, regulatory standards, and maintenance practices.
2. Indentify and select processes that yield the most effective treatment.
3. Predict the efficiency of treatment processes, using waterworks troubleshooting techniques.
4. Recognize and utilize safe practices for operating potable and waste water equipment and/or appurtenances.
5. Recognize and understand the biological, chemical, microbial, and physical relationships within waterworks treatment processes.

WA215 WATER DISTRIBUTION SYSTEMS (3)

This course prepares students with the knowledge and skills required for operator certification. WA215 is designed to prepare persons working in the waterworks sector to foresee, plan, and implement strategies for maintaining environmental and water

quality as outlined in the United States Environmental Protection Agency (USEPA's) Safe Water Drinking Act, the Water Pollution Control Act, and the National Environmental Policy Act (NEPA). Course offering: As needed. Prerequisites: WT100, MA095

Student Learning Outcomes (SLOs):

Upon successful completion of this course, students will be able to:

1. Recognize and understand water distribution system nomenclature, components, and NEPA standards.
2. Identify water distribution modes and their methods for operation.
3. Predict the efficiency of a water distribution system using waterworks problem solving and/or troubleshooting techniques.
4. Recognize and utilize safe practices for operating and managing a water distribution system and its appurtenances.
5. Recognize and understand the subject matter required for operator certification.

WE - WELDING

WE115 METAL FABRICATION (3)

Students develop fabrication knowledge and skills in cutting and assembling projects from given specifications using various hand tools, power tools and machines. Course offering: As needed. Corequisites: CT196A, CT197A

Student Learning Outcomes (SLOs):

Upon successful completion of this course, students will be able to:

1. Accurately cut a variety of metal structural shapes.
2. Accurately bend select types of metal.
3. Accurately fit select angles as determined by particular projects.

WE220 EQUIPMENT MAINTENANCE (2)

Training is given in equipment component nomenclature, cleaning and refurbishing of electrical and mechanical parts and safety procedures in maintaining equipment functions. Course offering: As needed

Student Learning Outcomes (SLOs):

Upon successful completion of this course, students will be able to:

1. Disassemble oxyfuel gages and electric arc welders
2. Determine which components need to be replaced or adjusted within a given unit.
3. Reassemble each electrical and mechanical component to a functioning level.

WE228 BASIC METALLURGY (3)

This course offers instruction in metals of classification and their manufacture. Joining methods and processes, structure of metals, mechanical properties, effects of alloying, fluxes, preheating, post heating and general head treatment are also examined. Course offering: As needed

Student Learning Outcomes (SLOs):

Upon successful completion of this course, students will be able to:

1. Demonstrate an understanding of basic terminology involved with metallurgy.
2. Demonstrate basic methods and processes involved in metallurgy.
3. Demonstrate knowledge of the elements that contribute to characteristics of ally steel.

WT - WATERWORKS TECHNOLOGY

WT100 INTRODUCTION TO WATERWORKS TECHNOLOGY (3)

Introduction to Waterworks Technology is a three credit course designed for a waterworks operator or prospective operator. This course provides basic knowledge of water and wastewater treatment, microbial, physical, and chemical analysis, a basic introduction to fluid transport and hydraulics and in-depth examination of water treatment operations. Course offering: As needed

Student Learning Outcomes (SLOs):

Upon successful completion of this course, students will be able to:

1. Recognize the sources, sinks, and potential contaminants of water.
2. Describe various water and wastewater treatment and distribution methods.
3. Apply physical concepts (e.g., fluid motion, hydraulics, etc.) to design or evaluate the soundness of a water or wastewater treatment system.
4. Identify physical, biological, and chemical parameters critical for operating a water or wastewater treatment facility.

5. Indicate appropriate tests to monitor water and wastewater quality.
6. Demonstrate an understanding of local and federal water quality regulations.

WT110 INTRODUCTION TO WATERWORKS SCIENCE (3)

This course is designed to prepare individuals working in the waterworks sector to foresee, plan, and implement strategies for maintaining environmental and water quality as outlined in the United States Environmental Protection Agency (USEPA's) Safe Water Drinking Act, Water Pollution Control Act, and National Environmental Policy Act. Course offering: As needed. Prerequisite: WT100, MA095

Student Learning Outcomes (SLOs):

Upon successful completion of this course, students will be able to:

1. Demonstrate understanding of waterworks specific nomenclature, regulatory standards, and academic subject matter for operator licensing examinations.
2. Identify waterworks treatment modes and their methods for operation.
3. Predict the efficiency of treatment methods using waterworks problem solving and/or troubleshooting techniques.
4. Recognize and utilize safe practices for operating various equipment within a waterworks treatment facility, or its distribution or collections system
5. Recognize and demonstrate understanding of the biological, chemical, microbial, and physical relationships within a waterworks treatment facility or its distribution or collections system.

WT140 MANAGEMENT OF WATER AND WASTEWATER SYSTEMS (3)

This course focuses on environmental and regulatory compliance using Best Methods and Practices (BMP) for potable water and domestic wastewater treatment, as well as their respective distribution and collection systems. WT140 is designed to prepare individuals working in waterworks to foresee, plan, and implement strategies for maintaining environmental compliance, as outlined in the United States Environmental Protection Agency's (USEPA) Clean Water Act, Safe Drinking Water Act, Water Pollution Control Act, and National Environmental Policy Act. Formerly WA200 & WW220. Course offering: As needed. Prerequisite: WT110, MA095 or higher

Student Learning Outcomes (SLOs):

Upon successful completion of this course, students will be able to:

1. Recognize and demonstrate understanding of water-based constituents (e.g., bacterial, chemical, microbiological, radiological, and viral) that are regulated within the waterworks industry.
2. Recognize and demonstrate understanding of potable water and domestic wastewater regulatory standards, and their respective sampling protocols.
3. Predict compliance by using *Standard Methods for the Examination of Water and Wastewater*.
4. Identify and apply "Best Methods and Practices" to ensure waterworks systems operate within regulatory compliance and/or standards.

WW - WASTEWATER TECHNOLOGY

WW200 PRIMARY TREATMENT (4)

This course focuses on the primary stages of treatment for domestic wastewater treatment systems, both its operations and mechanical components. WW200 is specifically designed to prepare individuals working within a domestic wastewater facility to foresee, plan, and implement straegies for operating and maintaining an efficient and safe facility, as regulated by the United Staes Environmental Protection Agency's (USEPA) Water Pollution Control Act and National Environmental Policy Act. Course offering: As needed. Prerequisite: WT110 and MA095 or higher

Student Learning Outcomes (SLOs):

Upon successful completion of this course, students will be able to:

1. Recognize the sources, sinks, and potential contaminants of water.
2. Describe various water and wastewater treatment and distribution methods.
3. Apply physical concepts (e.g., fluid motion, hydraulics, etc.) to design or evaluate the soundness of a water or wastewater treatment system.
4. Identify physical, biological, and chemical parameters critical for operating a water or wastewater treatment facility.
5. Indicate appropriate tests to monitor water and wastewater quality.
6. Demonstrate an understanding of local and federal water quality regulations.

Appendix A

Institutional Learning Outcomes (ILOs)
Program Level SLOs
Course Level SLOs

Program Level SLOs

CONSTRUCTION TECHNOLOGY/CERTIFICATE													
I = Introduced R = Reinforced E = Emphasized List course alpha and no. ⇨	CT100	CT140	CT153	CT173	CT183	CT193	CT165A	CT165B	CT165C	CT165D	CT185A	CT185B	CT185C
Student Learning Outcomes – Program Level Upon successful completion of this program, students will be able to:													
1. Demonstrate basic skills needed of function as an entry-level worker in at least one of seven disciplines in accordance with industry safety standards: carpentry, electricity, heating, ventilation, and air-conditioning (HVAC), masonry, plumbing, reinforcing metal worker, or welding.	**I**	**I**	**I**	**IR**	**R**	**RE**	**I**	**IR**	**R**	**E**	**I**	**R**	**E**
2. Exhibit entry-level knowledge in at least one of the seven construction trades concentration areas.		**I**	**I**	**IR**	**R**	**RE**	**I**	**IR**	**R**	**E**	**I**	**R**	**E**
3. Demonstrate professionalism as related to the construction trades industry.	**I**	**I**	**I**	**IR**	**R**	**RE**	**I**	**IR**	**R**	**E**	**I**	**R**	**E**

Course Level SLOs

CT100 Introduction to Construction Trades *Upon successful completion of this course, students will be able to:*	**Related to Program Level SLO#**
1. Describe basic knowledge and skills needed in various construction trades area.	1,2
2. Identify the proper names of tools and equipment used in the construction technology field.	1,2
3. Develop an appropriate work ethic and attitude necessary to succeed in the construction field.	3

CT140 Industrial Safety *Upon successful completion of this course, students will be able to:*	**Related to Program Level SLO#**
1. Identify accident prevention practices within the construction trades industry.	1,2
2. Demonstrate proficiency in recognizing safety hazards and corrective measures on a job site.	2
3. List national (international) and local agencies that provide safety standards and be familiar with available resources.	2

CT153 Introduction to Carpentry *Upon successful completion of this course, students will be able to:*	**Related to Program Level SLO#**
1. Identify commonly used tools, supplies, and equipment in the carpentry profession.	1
2. Explain the safe use and care of various carpentry tools, supplies and equipment.	1,2,3
3. Identify common terminology in the carpentry field.	2
4. Discuss the various local and global career opportunities for professional carpenters.	3

CT173 Rough Framing and Exterior Finishing *Upon successful completion of this course, students will be able to:*	**Related to Program Level SLO#**
1. Demonstrate the knowledge and skills needed to properly construct a structure.	1,2
2. Demonstrate basic skills needed to complete the framing of a given project.	1
3. Demonstrate the correct use of tools, supplies, and equipment needed in the framing and finishing of a project.	1

CT183 Finishing *Upon successful completion of this course, students will be able to:*	**Related to Program Level SLO#**
1. Dial in angles and make accurate cuts with a slide compound saw.	
2. Demonstrate skills needed to center windows, cabinets, and doors using wedges and levels.	
3. Install a variety of trims as specified in given blueprints.	

CT193 Cabinet Making and Millwork *Upon successful completion of this course, students will be able to:*	**Related to Program Level SLO#**
1. Correctly assemble cabinetry following a given set of plans.	1,2
2. Design and build a cabinetry project.	1
3. Discuss current practices and materials used in cabinetry design.	1,2

CT165A Electricity Level I *Upon successful completion of this course, students will be able to:*	**Related to Program Level SLO#**
1. Explain skills needed by a licensed electrician.	1,3
2. Demonstrate understanding of the safe operation and maintenance of electrical tools.	1,2
3. Develop an appropriate attitude related to professional electrical work.	3
4. Discuss the variety of electrical career paths.	3

CT165B Electricity Level II *Upon successful completion of this course, students will be able to:*	**Related to Program Level SLO#**
1. Demonstrate appropriate use and care of various hand and power tools used by professional electricians.	1,2
2. Develop the knowledge and skills related to National Electric Code (NEC), raceways, boxes and fittings, conductors, and electrical blue prints.	1,2
3. Demonstrate knowledge and skills needed in the electrical wiring of commercial, industrial, and residential areas.	1,2

CT165C Electrical Level III *Upon successful completion of this course, students will be able to:*	**Related to Program Level SLO#**
1. Acquire entry-level skills that are essential for success in the initial purist of a career as an electrician	1
2. Demonstrate knowledge and skills related to alternating current, motors, grounding, conduit, bendign, boxes and fittings.	1,2
3. Demonstrate knowledge of basic physics concepts related to electricity and identify common terminology	2

CT165D Electrical Level IV *Upon successful completion of this course, students will be able to:*	**Related to Program Level SLO#**
1. Demonstrate use and care of various hand and power tools used by professional electricians adhering to all industry safety standards.	1
2. Demonstrate the knowledge and skills related to conductor installations, cable trays, conductor terminators and splices, installation of electrical services, circuit breakers and fuses, contractors and relays, and electric lighting.	1,2
3. Demonstrate professionalism and an appropriate work ethic needed to succeed as an entry-level electrician.	3

CT185A Refrigeration and Air Con. Level I *Upon successful completion of this course, students will be able to:*	**Related to Program Level SLO#**
1. Demonstrate understanding of the core principles and terminology related to air conditioning and refrigeration.	2
2. Identify the safe use of equipment, supplies, and materials used in heating, ventilation and air-conditioning (HVAC) industry.	1,2
3. Explain the various careers associated with the HVAC industry both locally and globally.	3

CT185B Refrigeration and Air Con. Level II *Upon successful completion of this course, students will be able to:*	**Related to Program Level SLO#**
1. Explain the basic knowledge and skills necessary for more advanced study in the heating, ventilation, and air-conditioning (HVAC) industry.	1,2
2. Demonstrate basic mathematical skills needed in the HVAC industry.	1
3. Acquire skills needed for the HVAC service technician.	3

CT185C Refrigeration and Air Con. Level III *Upon successful completion of this course, students will be able to:*	**Related to Program Level SLO#**
1. Demonstrate the proper use, care, and safe operation and maintenance of equipment, supplies and materials used in the heating, ventilation, and air-conditioning (HVAC) industry.	1,2
2. Exhibit professionalism and work ethic deemed necessary to succeed as entry-level refrigeration and air-conditioning technician.	3

Program Level SLOs

COSMETOLOGY/CERTIFICATE										
I = Introduced R = Reinforced E = Emphasized **List course alpha and no.** ⇨	CM101	CM102L	CM201	CM202L	CM103L-a	CM203L-a	CM198	CM204L	CM118	CM117
Student Learning Outcomes – Program Level Upon successful completion of this program, students will be able to:										
1. Demonstrate and employ the skills needed to work in a variety of cosmetology-related occupations, such as an esthetician, solon owner, nail specialist, hair color specialist, and makeup artist.	**IRE**	**RE**	**RE**	**R**	**R**	**R**	**RE**	**R**	**I**	**I**
2. Generate the knowledge and illustrate the skills required to pass the National-Interstate Council of State Boards of Cosmetology Practical Examination.	**IRE**	**RE**	**RE**	**R**	**R**	**R**	**RE**	**R**	**I**	**I**
3. Apply affective interpersonal skills and practice professional ethics needed to succeed in this profession.	**IRE**	**RE**	**RE**	**R**	**R**	**R**	**RE**	**R**	**I**	**I**

Course Level SLOs

CM101 Concepts I *Upon successful completion of this course, students will be able to:*	**Related to Program Level SLO#**
1. Demonstrate the appropriate steps needed to control disinfection in order to combat bacterial infections.	
2. Describe the appropriate skills needed for the proper use and application of nail technology.	
3. Demonstrate the appropriate skills needed to properly perform esthetics.	

CM102L Salon I *Upon successful completion of this course, students will be able to:*	**Related to Program Level SLO#**
1. Demonstrate the ability to perform a basic manicure/pedicure procedure.	
2. Demonstrate the ability to perform basic facial/massage treatments.	
3. Demonstrate the ability to perform basic haircutting skills.	

CM103A Salon I Advanced *Upon successful completion of this course, students will be able to:*	**Related to Program Level SLO#**
1. Demonstrate the psychomotor skills needed for nail care services rendered at a mastery level.	1,2
2. Demonstrate the psychomotor skills needed for skin care services rendered at a mastery level.	1,2
3. Demonstrate the psychomotor skills needed for hair and cutting skills rendered at a mastery level.	1,2

CM204L Salon III *Upon successful completion of this course, students will be able to:*	**Related to Program Level SLO#**
1. Demonstrate the psychomotor skills needed for haircutting and haircoloring skills rendered at a mastery level.	1,2
2. Demonstrate the psychomotor skills needed for hair, chemical texture services skills rendered at a mastery level.	1,2
3. Demonstrate the psychomotor skills needed for hair design and styling rendered at a mastery level.	1,2

CM198 Clinical Co-op/Work-Learn *Upon successful completion of this course, students will be able to:*	**Related to Program Level SLO#**
1. Complete supervised work experience to develop skills necessary as a cosmetologist.	ALL
2. Enter the workforce by combining academic studies with practical, on-the-job training with work experience.	ALL

CM117 Esthetics *Upon successful completion of this course, students will be able to:*	**Related to Program Level SLO#**
1. Comply with the Guam Board of Cosmetology rules and regulations.	2
2. Plan and design a layout of a fully functional esthetician salon.	ALL
3. Provide records and documents that are in compliance with all laws.	ALL
4. Identify all types of bacterial infections and disinfection control.	ALL
5. Experience customer service relations for a fully operational salon.	ALL
6. Apply the theoretical knowledge needed to provide, skin, makeup and removal of unwanted hair	ALL

CM203L Salon II Advanced *Upon successful completion of this course, students will be able to:*	**Related to Program Level SLO#**
1. Demonstrate the psychomotor skills needed for nail care services rendered at a mastery level.	1,2
2. Demonstrate the psychomotor skills needed for skin care services rendered at a mastery level.	1,2
3. Demonstrate the psychomotor skills needed for hair and cutting skills rendered at a mastery level.	1,3

CM201 Concepts II *Upon successful completion of this course, students will be able to:*	**Related to Program Level SLO#**
1. Demonstrate the steps needed to properly perform chemical texture services.	
2. Demonstrate the steps needed to correctly apply hair coloring.	
3. Demonstrate the steps needed for properly cutting hair.	

services.	
CM118 Nail Technology *Upon successful completion of this course, students will be able to:*	**Related to Program Level SLO#**
1. Comply with the Guam Board of Cosmetology rules and regulations	2
2. Plan and design a layout of a fully functional nail salon.	ALL
3. Provide records and documents that are in compliance with all laws.	ALL
4. Identify all types of bacterial infections and disinfections control.	ALL
5. Experience customer service relations for a fully operational salon.	ALL
6. Apply the theoretical knowledge needed to provide nail care services.	ALL

CM202L Salon II *Upon successful completion of this course, students will be able to:*	**Related to Program Level SLO#**
1. Demonstrate the ability to correctly perform a chemical texture service.	
2. Demonstrate the ability to correctly apply hair color service.	
3. Demonstrate the ability to perform haircutting services to customer satisfaction.	

Institutional Learning Outcomes (ILOs)

Name of Program Criminal Justice Certificate **I = Introduced R = Reinforced E = Emphasized** **List course alpha and no.** ⇨	CJ100	CJ150	CJ200	CJ102	CJ126	CJ126L	CJ132	CJ135	CJ205				
Guam Community College students will acquire the highest quality education and job training that promotes workforce development and empowers them to serve as dynamic leaders within the local and international community. Students will demonstrate:													
Use of acquired skills in effective communication, and quantitative analysis with proper application of technology.	**I**												
Ability to access, assimilate and use information ethically and legally.	**I**	**R**	**R**	**R**	**R**	**R**	**R**	**R**	**E**				
Mastery of critical thinking and problem-solving techniques.	**I**												
Collaborative skills that develop professionalism, integrity, respect, and fairness.	**I**	**R**	**R**	**R**	**R**	**R**	**R**	**R**	**R**				
Civic responsibility that fosters respect and understanding of ethical, social, cultural, and environmental issues locally and globally.	**I**	**R**	**R**	**R**	**R**	**R**	**R**	**R**	**R**				

Program Level SLOs

CRIMINAL JUSTICE/CERTIFICATE **I = Introduced R = Reinforced E = Emphasized** **List course alpha and no.** ⇨	CJ100	CJ150	CJ200	CJ102	CJ126	CJ126L	CJ132	CJ135	CJ205				
Student Learning Outcomes – Program Level Upon successful completion of this program, students will be able to:													
Identify the legal procedures for gathering information about crimes, criminal procedure, and defendants' rights.	I	IRE	R	I	I	R			R				
Describe the process of the criminal justice system and the duties and responsibilities of the criminal justice professional.	I	IRE	RE	I	IR		IR	IR	RE				
Demonstrate the ability to understand the interrelations, ethics, and role expectations of the criminal justice professional in society.	I	I	R	I	I		RE	RE	R				

Course Level SLOs

CJ100 Intro to Criminal Justice *Upon successful completion of this course, students will be able to:*	**Related to Program Level SLO#**
1. Describe the history and development of the Criminal Justice System.	
2. Identify the role of the Criminal Justice System in contemporary society.	3
3. Describe the functions of law enforcement, courts and corrections.	2
4. Describe the functions of probation, parole and the Juvenile Justice System.	2

CJ150 Criminal Procedure *Upon successful completion of this course, students will be able to:*	**Related to Program Level SLO#**
1. Describe the history and development of the U.S. Court System, court cases and sources of rights.	1
2. Identify the procedural Criminal Law process.	2
3. Define how the courts intercept cases and the concept of stare decisis.	3
4. Understand and apply Title 8 Guam Code Annotated, Criminal Procedure Code, to hypothetical situations.	

CJ200 Criminal Law *Upon successful completion of this course, students will be able to:*	**Related to Program Level SLO#**
1. Describe the history and development of Criminal Justice and the U.S. court System.	2
2. Identify the substantive Criminal Law process.	2
3. Define the elements of a crime and probable cause.	1
4. Apply Title 9, the Criminal Code and 16, Vehicle Code 3, Guam Code Annotated, to hypothetical situations.	2

CJ102 First Responder *Upon successful completion of this course, students will be able to:*	**Related to Program Level SLO#**
1. Diagnose emergency situations and provide appropriate emergency treatment.	2
2. Explain and discuss the role of a First Responder.	2
3. Demonstrate the First Responder skills set at an acceptable level as required by local regulations.	2
4. Demonstrate proficiency in BLS and CPR by passing the final skills practical exams and written exam required by the DOT to become a certified First Responder.	2

CJ132 Emergency Vehicle Operator Course *Upon successful completion of this course, students will be able to:*	**Related to Program Level SLO#**
1. Identify safety skills during an emergency response.	2
2. Explain the proper operation of emergency vehicles.	2
3. Identify and properly deal with hazards involved with operating emergency vehicles.	2
4. Review the basics of defensive driving.	2
5. Understand the laws governing emergency vehicle operation.	

CJ135 Firearms Use/Safety/Care *Upon successful completion of this course, students will be able to:*	**Related to Program Level SLO#**
1. Understand the physical attributes and mechanics of a firearm.	2
2. Apply knowledge of firearm safety.	2
3. Demonstrate knowledge of firearm related laws.	2
4. Practice safe use of firearms within a controlled environment.	2
5. Demonstrate use of firearms at prevailing acceptable and passing levels.	2

CJ126 Officer Survival *Upon successful completion of this course, students will be able to:*	**Related to Program Level SLO#**
1. Identify the safety techniques to use when approaching a potentially dangerous or life threatening situation.	2
2. List street survival skills an officer should acquire while on duty.	2
3. Demonstrate the ability to apply officer safety and street survival skills at an acceptable level in mock situations.	2

CJ126L Officer Survival Lab *Upon successful completion of this course, students will be able to:*	**Related to Program Level SLO#**
1. Practice the various officer safety and street survival skills in mock situations.	2
2. Demonstrate proficiency in the use of the various officer safety and street survival skills at acceptable levels.	2

CJ205 Police Report Writing *Upon successful completion of this course, students will be able to:*	**Related to Program Level SLO#**
1. Identify the substantive Criminal Law process.	1
2. Define the elements of a crime and determine if probable cause exists to charge a defendant with a criminal act.	1
3. Demonstrate understanding of the various law enforcement forms and how to apply it to hypothetical situations.	2
4. Apply Title 9, the Criminal Code and 16, vehicle Code, Guam Code Annotated, to hypothetical situations.	3

Institutional Learning Outcomes (ILOs)

Name of Program Med/Heavy Truck Diesel Technology **Certificate** **I = Introduced R = Reinforced E = Emphasized** **List course alpha and no.** ⇨	MHT100A	MHT100B	MHT110	MHT120	MHT130	MHT140	MHT150	MHT160	MHT170	MHT210	MHT230	MHT270	
Guam Community College students will acquire the highest quality education and job training that promotes workforce development and empowers them to serve as dynamic leaders within the local and international community. Students will demonstrate:													
Use of acquired skills in effective communication, and quantitative analysis with proper application of technology.	**I**		**R**	**R**	**R**	**R**	**R**	**R**	**R**	**E**	**E**	**E**	
Ability to access, assimilate and use information ethically and legally.	**I**		**R**	**R**	**R**	**R**	**R**	**R**	**R**	**E**	**E**	**E**	
Mastery of critical thinking and problem-solving techniques.	**I**		**R**	**R**	**R**	**R**	**R**	**R**	**R**	**E**	**E**	**E**	
Collaborative skills that develop professionalism, integrity, respect, and fairness.	**I**		**R**	**R**	**R**	**R**	**R**	**R**	**R**	**E**	**E**	**E**	
Civic responsibility that fosters respect and understanding of ethical, social, cultural, and environmental issues locally and globally.	**I**		**R**	**R**	**R**	**R**	**R**	**R**	**R**	**E**	**E**	**E**	

Program Level SLOs

MEDIUM HEAVY TRUCK DIESEL TECHNOLOGY/CERTIFICATE													
I = Introduced R = Reinforced E = Emphasized **List course alpha and no.** ⇨	MHT100A	MHT100B	MHT110	MHT120	MHT130	MHT140	MHT150	MHT160	MHT170	MHT210	MHT230	MHT270	
Student Learning Outcomes – Program Level Upon successful completion of this program, students will be able to:													
1. Seek employment as a Heavy/Medium Truck Technician, Fleet Mechanic, Heavy Marine Diesel Technician, Generator Repair, Heavy Equipment Repair or Parts Counter person.	**I**		**R**	**R**	**R**	**R**	**R**	**R**	**R**	**E**	**E**	**E**	
2. Troubleshoot, maintain, and repair various heavy trucks and mobile equipment, including bulldozers, boats, cranes, road graders, farm tractors, and combines.	**I**		**R**	**R**	**R**	**R**	**R**	**R**	**R**	**E**	**E**	**E**	

Course Level SLOs

MHT100A Intro to Diesel Technology and Preventive Maintenance Part I *Upon successful completion of this course, students will be able to:*	**Related to Program Level SLO#**
1. Demonstrate proper workshop safety practices.	1,2
2. Identify, describe and demonstrate the proper usage of hand tools, special tools, and testing equipment.	1,2
3. Perform preventive maintenance procedures on diesel engines, fuel systems, air induction and exhaust systems.	1,2

MHT100B Intro to Diesel Technology and Preventive Maintenance Part II *Upon successful completion of this course, students will be able to:*	**Related to Program Level SLO#**
1. Execute preventive maintenance procedures on cooling systems, lubrication systems, cab and hood.	1,2
2. Carry out preventive maintenance procedures on safety equipment, hardware, heating ventilation & air conditioning (HVAC), electrical/electronics, charging systems, lighting systems, frame and chassis.	1,2
3. Perform preventive maintenance procedures on hydraulic brakes, drive trains, suspension & steering systems, tires & wheels, and frame with fifth wheel.	

MHT110 MHT Diesel Engines Part I *Upon successful completion of this course, students will be able to:*	**Related to Program Level SLO#**
1. Explain general diesel engine operation and perform basic engine troubleshooting and repair.	1,2
2. Demonstrate cylinder head and valve train diagnostics and repair.	1,2
3. Expound engine block diagnostics and repair.	1,2
4. Identify lubrication system components and diagnose and repair minor problems.	1,2
5. Name the major parts and explain the functions of the cooling system and execute minor diagnostic and repair procedures.	1,2

MHT120 MHT Drive Trains Part I *Upon successful completion of this course, students will be able to:*	**Related to Program Level SLO#**
1. Describe clutch operation.	1,2
2. Discuss diesel transmission functionality.	1,2
3. Troubleshoot elemental transmission drivability problems and repair elemental faults.	1,2

MHT130 MHT Brake Systems Part I *Upon successful completion of this course, students will be able to:*	**Related to Program Level SLO#**
1. Depict air supply and service systems operation.	1,2
2. Identify mechanical/foundation system components and perform minor repairs.	1,2
3. Explain parking brake operation.	1,2

MHT140 MHT Suspension and Steering Part I *Upon successful completion of this course, students will be able to:*	**Related to Program Level SLO#**
1. Differentiate between different steering system designs and explain their functions.	1,2
2. Identify suspension system components and discuss basic functionality.	1,2
3. Perform wheel alignment diagnosis, adjustment, and repair.	1,2

MHT150 MHT Heating, Ventilation, and Air conditioning (HVAC) Part I *Upon successful completion of this course, students will be able to:*	**Related to Program Level SLO#**
1. Depict basic HVAC system operation.	1,2
2. Troubleshoot general A/C system malfunctions.	1,2
3. Explain A/C compressor and clutch operation and perform basic repairs.	1,2
4. Describe evaporator, condenser, and related components' functionality.	1,2

MHT160 MHT Hydraulics Part I *Upon successful completion of this course, students will be able to:*	**Related to Program Level SLO#**
1. Recognize general hydraulic system components and carry out entry level diagnosis, service, and repair.	1,2
2. Ascertain basic hydraulic system failures and perform preliminary pump diagnosis, service, and repair.	1,2
3. Perform fundamental filtration/reservoirs (tanks) diagnosis, service, and repair.	1,2

MHT170 MHT electrical/Electronic Systems Part I *Upon successful completion of this course, students will be able to:*	**Related to Program Level SLO#**
1. Perform general electrical systems diagnosis.	1,2
2. Discuss battery construction and determine cause(s) of battery failure.	1,2
3. Demonstrate fundamental starting system diagnosis and repair	1,2

MHT210 MHT Diesel Engines Part II *Upon successful completion of this course, students will be able to:*	**Related to Program Level SLO#**
1. Troubleshoot, intermediate level, air induction and exhaust system failures and perform needed repairs.	1,2
2. Diagnosis, intermediate level, fuel supply system failures and perform needed repairs.	1,2
3. Ascertain, intermediate level, mechanical fuel injection faults and perform needed repairs.	1,2
4. Determine, intermediate level, electronic fuel management system problems and perform needed repairs.	1,2
5. Perform, intermediate level, engine brakes diagnosis and repair.	1,2

MHT230 MHT Brake Systems Part II *Upon successful completion of this course, students will be able to:*	**Related to Program Level SLO#**
1. Ascertain hydraulic brake problem causes and rectify faults.	1,2
2. Demonstrate power assist unit failure analysis and take proper steps to correct failure.	1,2
3. Locate air and hydraulic Antilock Brake System (ABS) and Automatic Traction Control (ATC) faults and perform needed repairs.	1,2

MHT270 MHT Electrical/Electronics Systems Part II *Upon successful completion of this course, students will be able to:*	**Related to Program Level SLO#**
1. Locate faults in the lighting system and correct problems.	1,2
2. Pinpoint failure causes in gauges and warning devices and take proper action to correct situation.	1,2

Program Level SLOs

NURSING ASSISTING/CERTIFICATE				
I = Introduced R = Reinforced E = Emphasized **List course alpha and no.** ⇨	NU101	NU101C	HL120	HL131
Student Learning Outcomes – Program Level Upon successful completion of this program, students will be able to:				
1. List correct terms for medical abbreviations.	**R**	**R**	**IRE**	**R**
2. Recognize, define, spell, pronoumce terms related to the diagnosis, pathology and treatment of the human body.	**R**	**R**	**IRE**	**R**
3. Achieve and American Heart Association BLS Certificate.				**IRE**
4. Demonstrate safe application of the nursing assistant skills learned in the laboratory to the clinical/hospital setting.	**IR**	**E**		
5. Apply the Nursing Assistant principles learned in class to the clinical setting.	**IR**	**E**		
6. Recognize the principles of prevention, therapy and rehabilitation for patients of all ages.	**IR**	**E**		
7. Distinguish roles of a Nursing Assistant in a health care team.	**IR**	**E**		

Course Level SLOs

NU101 Nursing Assistant & NU101C Nursing Assistant Clinical *Upon successful completion of this course, students will be able to:*	**Related to Program Level SLO#**
1. Identify the principles of prevention, therapy, and rehabilitation for patients of all ages.	
2. Distinguish the roles of a Nursing Assistant in a health care team.	5
3. Apply the nursing assistant principles studied to the clinical setting.	
4. Demonstrate proficiency and knowledge of nursing assistant skills in preparation for the NNAAP (National Nurse Aide Assessment Program) written and practical exam.	

HL120 Medical Terminology *Upon successful completion of this course, students will be able to:*	**Related to Program Level SLO#**
1. Demonstrate knowledge of medical terms.	
2. Define 350 medical words and elements.	
3. Define medical abbreviations and symbols.	

HL131 Basic Life Support for Health Care Providers *Upon successful completion of this course, students will be able to:*	**Related to Program Level SLO#**
1. Demonstrate knowledge and skills of cardiopulmonary resuscitation for adult, child and infant.	
2. Demonstrate the appropriate use of automated external defibrillator.	
3. Identify the warning signs for life threatening conditions such as stroke and heart attack.	
4. Identify and describe the Chain of Survival according to the American Heart Association.	

Program Level SLOs

PRACTICAL NURSING/CERTIFICATE								
I = Introduced R = Reinforced E = Emphasized **List course alpha and no.** ⇨	NU110	NU140	NU160	NU220	NU230	NU240	NU280	NU292
Student Learning Outcomes – Program Level Upon successful completion of this program, students will be able to:								
1. Meet local and national standards for practical nurses in performing nursing care.	**I**	**R**	**R**	**R**	**R**	**R**	**R**	**E**
2. Be eligible for and prepared to take the NCLEX-PN exam in order to become LPNs or to enter more advanced degree nursing programs.	**I**	**R**	**R**	**R**	**R**	**R**	**R**	**E**
3. Apply the clinical problem-solving process (Nursing Process) and critical thinking skills within the scope of an LPN.	**I**	**R**	**R**	**R**	**R**	**R**	**R**	**E**
4. Be proficient in a variety of interpersonal and communication skills used in health care settings.	**I**	**R**	**R**	**R**	**R**	**R**	**R**	**E**

Course Level SLOs

NU110 Nursing Foundations & Basic Skills *Upon successful completion of this course, students will be able to:*	**Related to Program Level SLO#**
1. Utilize the nursing process in the assessment, planning, implementation, and evaluation of nursing interventions.	1
2. Practice basic therapeutic nursing interventions in a laboratory and clinical setting.	5
3. Apply problem-solving and critical thinking skills in nursing situations.	3
4. Apply a variety of interpersonal and communication skills as it relates to nursing interventions.	4

NU140 Mental Health Nursing *Upon successful completion of this course, students will be able to:*	**Related to Program Level SLO#**
1. Utilize the nursing process in the assessment, planning, implementation, and evaluation as it relates to mental illness.	5
2. Practice therapeutic nursing interventions in a laboratory and clinical setting.	5
3. Apply problem-solving and critical thinking skills in nursing situations.	3
4. Apply a variety of interpersonal and communication skills as it relates to mental health as it relates to mental health.	4

NU160 Pharmacology for Practical Nurses *Upon successful completion of this course, students will be able to:*	**Related to Program Level SLO#**
1. Apply the nursing process in relation to administration and evaluation of the therapeutic use of drugs through case studies.	5
2. Apply problem-solving and critical thinking skills.	3
3. Demonstrate with 100% accuracy methods to safely administer medications to adults and children.	
4. Pass at 85% accuracy a comprehensive medical math calculation test.	

NU220 Adult Medical-Surgical Nursing *Upon successful completion of this course, students will be able to:*	**Related to Program Level SLO#**
1. Utilize the nursing process in the assessment, planning, implementation, and evaluation of medical-surgical conditions.	3
2. Practice basic therapeutic nursing interventions in a laboratory and clinical setting as it relates to medical-surgical procedures.	5
3. Apply problem-solving and critical thinking skills in nursing practice.	3
4. Apply a variety of interpersonal and communication skills in a nursing context.	4

NU240 Pediatric Nursing concepts & Skills *Upon successful completion of this course, students will be able to:*	**Related to Program Level SLO#**
1. Utilize the nursing process in the assessment, planning, implementation, and evaluation as it relates to pediatric care.	1
2. Practice basic therapeutic nursing interventions in a laboratory and clinical setting.	5
3. Apply problem-solving and critical thinking skills in pediatric nursing.	3
4. Apply a variety of interpersonal and communication skills used in pediatric care.	3

NU230 Maternal/Newborn concepts & Skills *Upon successful completion of this course, students will be able to:*	**Related to Program Level SLO#**
1. Utilize the nursing process in the assessment, planning, implementation, and evaluation of maternal and newborn care.	1
2. Practice basic therapeutic nursing interventions in a laboratory and clinical setting as it relates to maternal and newborn care.	1
3. Apply problem-solving critical thinking skills as it relates to maternal and newborn care.	3

NU280 Nursing Trends *Upon successful completion of this course, students will be able to:*	**Related to Program Level SLO#**
1. Apply problem-solving and critical thinking skills to current trends and issues in nursing.	3
2. Enhance communication and interpersonal skills in the context of the health care industry.	4

NU292 Practical Nursing Clinical *Upon successful completion of this course, students will be able to:*	**Related to Program Level SLO#**
1. Meet local and national standards for practical nurses in performing nursing care.	1
2. Display professionalism in performing duties of the LPN.	2
3. Be eligible and prepared to take the NCLEX-PN exam in order to become LPNs or to enter more advanced degree nursing programs.	2
4. Apply the clinical problem-solving process (Nursing Process) and critical thinking skills within the scope of an LPN.	3
5. Apply a variety of interpersonal and communication skills used in the health care setting.	4

Program Level SLOs

ACCOUNTING/A.S.											
I = Introduced R = Reinforced E = Emphasized **List course alpha and no. ⇨**	AC100	AC101	AC102	AC103	AC110	AC150	AC210	AC232/33	AC225	AC250	AC240
Student Learning Outcomes – Program Upon completion of this program, students will be able to:											
1. Apply accounting theory and principles to accounting procedures and practices for either financial and/or hospitality accounting systems.	**IR**	**IRE**	**IRE**	**IRE**	**IRE**		**IRE**	**RE**	**IRE**		**IRE**
2. Develop dispositions and values suitable to the practice of accounting in the real world.	**I**	**I**	**I**	**I**	**I**	**IRE**	**I**	**IR**	**R**	**IR**	**IRE**
3. Demonstrate computer-based knowledge of the accounting cycle and the ability to perform necessary procedures at each step of the cycle for various types of business.		**I**	**I**	**I**	**IR**			**IRE**			

Course Level SLOs

AC100 Fundamentals of Bookkeeping and Accounting *Upon successful completion of this course, students will be able to:*	**Related to Program Level SLO#**
1. Apply accounting procedures to properly record financial information about a business.	1,3
2. Apply generally accepted accounting theory and principles to perform all the steps of the accounting cycle for a service and retail type business.	1,2,3
3. Perform internal control procedures to protect and properly manage cash and other business assets.	2
4. Perform accounting procedures to journalize and post business transactions using special journals for a merchandise business.	1,3

AC210 Introduction to Financial Management *Upon successful completion of this course, students will be able to:*	**Related to Program Level SLO#**
1. Interpret and apply financial ratios to financial statements to evaluate future prospects of the business.	6
2. Define markets and determine the market interest rate using various universal tools.	6
3. Compare risk with the rate of return in a single investment and a portfolio investment.	8
4. Perform valuations of stocks and bonds.	5
5. Calculate present value and future value of a cash flow problem.	5
6. Explain the concept of working capital and its components in order to manage cash conversion cycles.	8

AC211 Accounting Principles I *Upon successful completion of this course, students will be able to:*	**Related to Program Level SLO#**
1. Interpret and apply accounting principles and concepts to record and report business financial data for effective management decision making.	15
2. Demonstrate the proper procedures to perform all the steps of the accounting cycle for a merchandise business.	15
3. Perform manual and computerized accounting tasks that use subsidiary ledgers and special journals.	5
4. Perform bank reconciliations for business records and maintain petty cash systems.	14
5. Demonstrate the ability to calculate inventory data using various types of inventory costing methods.	5

AC212 Accounting Principles II *Upon successful completion of this course, students will be able to:*	**Related to Program Level SLO#**
1. Analyze and record journal entries for corporations dealing with stockholder's equity of a corporation.	15
2. Apply financial statement analysis to assess the solvency and profitability of a business.	14
3. Analyze accounting issues related to bonds and perform the calculations to compute the present value of bonds payable.	6
4. Process payroll transactions and registers with related employee and employer taxes.	6
5. Demonstrate proficiency to prepare corporation financial statements including the statement of cash flow.	15

AC240 Certified Bookkeeper Review *Upon successful completion of this course, students will be able to:*	**Related to Program Level SLO#**
1. Develop mastery-level skills in selected areas of accounting: Payroll, Depreciation, Adjusting entries, Error Corrections, Inventory, Internal control and Fraud Prevention, to prepare for passing the AIPB national certification exam.	15
2. Obtain their CB certificate upon full completion of all AIPB requirements.	12
3. Discuss the universal Code of Ethics for bookkeepers and sign a code of ethics declaration.	8

AC225 Hospitality Industry Accounting *Upon successful completion of this course, students will be able to:*	**Related to Program Level SLO#**
1. Develop mastery-level skills in the fundamentals of financial accounting for the global hospitality industry.	15
2. Obtain the American Hotel & Motel Association certificate upon completion of all course requirements and successfully passing the national certification examination.	15
3. Perform analysis and interpretation of financial statements of the hospitality industry.	15
4. Discuss computerized accounting systems prevalent in hospitality businesses that use special journals and subsidiary ledgers.	8

AC250 Federal Income Tax II *Upon successful completion of this course, students will be able to:*	**Related to Program Level SLO#**
1. Discuss formation and operation of corporations related to corporate taxation.	9
2. Discuss corporate taxation regulations related to corporate distributions to shareholders.	8
3. Discuss taxation issues for stock redemptions treated as a sale or exchange or as a dividend.	8
4. Determine the tax treatment of the liquidating corporation including the recognition of gain or loss.	14
5. Identify the characteristics of the seven types of reorganization of a corporation.	15
6. Explore the nature of the accumulated earnings tax penalty imposed on a corporation that fails to distribute its earnings.	13

AC110 Payroll Accounting *Upon successful completion of this course, students will be able to:*	**Related to Program Level SLO#**
1. Develop an understanding of the personnel and payroll records that provide the information required under the numerous laws affecting the operations of a payroll system.	15
2. Calculate wages, employees earning records, and a payroll register applying all payroll laws that are applicable and current.	5
3. Perform all aspects of payroll operations, including payroll tax returns.	15
4. Process a four-month payroll period for a business using two methods: manual and computerized.	15

AC233 Accounting on the Computer using Quickbooks *Upon successful completion of this course, students will be able to:*	**Related to Program Level SLO#**
1. Demonstrate computer-based skills using a current software version of QuickBooks to perform necessary procedures at each step of the accounting cycle for service, nonprofit, and manufacturing businesses.	5
2. Apply appropriate procedures to analyze problems and make corrections to errors discovered in a company's books using QuickBooks.	15
3. Review basic accounting principles and theory during the process of recording business transactions using the accounting software QuickBooks.	14
4. Use appropriate accounting terminology and language to evaluate financial statements and other accounting documents generated by QuickBooks.	8

AC232 Accounting on the Computer Using Peachtree *Upon successful completion of this course, students will be able to:*	**Related to Program Level SLO#**
1. Demonstrate computer-based skills using a current software version of Peachtree to perform necessary procedures at each step of the accounting cycle for service, nonprofit, and manufacturing businesses.	5
2. Apply appropriate procedures to analyze problems and make corrections to errors discovered in a company's books using Peachtree.	15
3. Review basic accounting principles and theory during the process of recording business transactions using the accounting software Peachtree.	14
4. Use appropriate accounting terminology and language to evaluate financial statements and other accounting documents generated by Peachtree.	8

AC150 Federal Income Tax I *Upon successful completion of this course, students will be able to:*	**Related to Program Level SLO#**
1. Discuss what the federal income tax is and distinguish it from other types of federal taxes.	8
2. Distinguish between the regular income tax and the alternative minimum tax.	16
3. Discuss how congress derived its authority to impose the federal income tax.	8
4. List the objectives of the federal income tax laws.	13

Institutional Learning Outcomes (ILOs)

Name of Program Automotive Service Technology **Certificate AND Associate** **I = Introduced R = Reinforced E = Emphasized** **List course alpha and no.** ⇨	AST100	AST110	AST120	AST130	AST140	AST150	AST160	AST170	AST180A	AST180B
Guam Community College students will acquire the highest quality education and job training that promotes workforce development and empowers them to serve as dynamic leaders within the local and international community. Students will demonstrate:										
Use of acquired skills in effective communication, and quantitative analysis with proper application of technology.	**I**	**R**	**R**	**R**	**R**	**R**	**R**	**R**	**R**	**R**
Ability to access, assimilate and use information ethically and legally.	**I**	**R**	**R**	**R**	**R**	**R**	**R**	**R**	**R**	**R**
Mastery of critical thinking and problem-solving techniques.	**I**	**R**	**R**	**R**	**R**	**R**	**R**	**R**	**R**	**R**
Collaborative skills that develop professionalism, integrity, respect, and fairness.	**I**	**R**	**R**	**R**	**R**	**R**	**R**	**R**	**R**	**R**
Civic responsibility that fosters respect and understanding of ethical, social, cultural, and environmental issues locally and globally.	**I**	**R**	**R**	**R**	**R**	**R**	**R**	**R**	**R**	**R**

Name of Program Automotive Service Technology **Certificate AND Associate** **I = Introduced R = Reinforced E = Emphasized** **List course alpha and no.** ⇨	AST210	AST220	AST230	AST240	AST250	AST260	AST270	AST280		
Guam Community College students will acquire the highest quality education and job training that promotes workforce development and empowers them to serve as dynamic leaders within the local and international community. Students will demonstrate:										
Use of acquired skills in effective communication, and quantitative analysis with proper application of technology.	**E**	**E**	**E**	**E**	**E**	**E**	**E**	**E**		
Ability to access, assimilate and use information ethically and legally.	**E**	**E**	**E**	**E**	**E**	**E**	**E**	**E**		
Mastery of critical thinking and problem-solving techniques.	**E**	**E**	**E**	**E**	**E**	**E**	**E**	**E**		
Collaborative skills that develop professionalism, integrity, respect, and fairness.	**E**	**E**	**E**	**E**	**E**	**E**	**E**	**E**		
Civic responsibility that fosters respect and understanding of ethical, social, cultural, and environmental issues locally and globally.	**E**	**E**	**E**	**E**	**E**	**E**	**E**	**E**		

Program Level SLOs

AUTOMOTIVE SERVICE TECHNOLOGY/CERTIFICATE & A.S.								
I = Introduced R = Reinforced E = Emphasized **List course alpha and no.** ⇨	AST210	AST220	AST230	AST240	AST250	AST260	AST270	AST280
Student Learning Outcomes – Program Level Upon successful completion of this program, students will be able to:								
1. Identify the purposes and proper functioning of the core components of an automobile.	**E**							**E**
2. Perform a cylinder compression craking test.	**E**							**E**
3. Demonstrate the proper use of a digital multimeter (DMM) during diagnosis of electrical circuit problems.		**R**	**R**	**R**	**R**	**R**	**R**	**R**
4. Diagnose and repair automatic and manual transmission faults.		**E**	**E**					
5. Determine cause of failure in the Heating Ventilation and Air Conditioning (HVAC) System and perform required repairs.							**E**	

Course Level SLOs

AST100 Intro to Automotive Service *Upon successful completion of this course, students will be able to:*	**Related to Program Level SLO#**
1. Demonstrate shop safety concepts and practices.	1,2,3,4,5
2. Depict good customer relations.	1,2,3,4,5
3. Identify basic hand tools and shop equipment and demonstrate proper use.	1,2,3
4. Explain the basic functions and perform elemental service procedures on the engine, electrical, and ignition systems.	1,2,3
5. Perform basic automotive measurements and compare results to specifications.	1,2,3

AST110 Engine Repair *Upon successful completion of this course, students will be able to:*	**Related to Program Level SLO#**
1. Explain the basic functioning of the engine mechanical system.	1,2
2. Identify and interpret engine mechanical concerns and determine necessary action.	2
3. Perform basic service and repair procedures on an engine.	2
4. Inspect cylinder head, water and oil passage condition, and identify wear patterns, determine necessary action.	2

AST120 Automatic Transmission and Transaxle *Upon successful completion of this course, students will be able to:*	**Related to Program Level SLO#**
1. Diagnose general transmission and transaxle faults.	3,4
2. Perform maintenance and adjustment procedures on transmission and transaxle.	3
3. Explain in-vehicle transmission repair procedures.	3
4. Demonstrate basic off-vehicle transmission repair procedures.	3

AST130 Manual Drive Train & Axles *Upon successful completion of this course, students will be able to:*	**Related to Program Level SLO#**
1. Diagnose general drive train faults.	4
2. Diagnose clutch related problems and perform needed repairs.	4
3. Explain elemental manual transmission/transaxle and differential repair procedures.	4
4. Depict how to diagnose and repair four-wheel drive and all-wheel drive systems.	4

AST140 Suspension and Steering *Upon successful completion of this course, students will be able to:*	**Related to Program Level SLO#**
1. Identify and interpret short and long arm and strut suspension faults and determine necessary action.	1
2. Perform preventive maintenance procedures on power steering system.	1
3. Diagnose tire related concerns and determine necessary action.	1
4. Service and adjust parallelogram and rack and pinion steering systems.	1

AST150 Brakes *Upon successful completion of this course, students will be able to:*	**Related to Program Level SLO#**
1. Identify general brake-related concerns and recommend actions to be taken.	1
2. Diagnose hydraulic related faults in a vehicle's brake system.	1
3. Inspect the mechanical components of a vehicle's brake system and determine necessary action.	1
4. Ascertain the cause(s) of abnormal brake system noises, poor performance, and excessive wheel shimmy and vibration.	1

AST160 Electrical/Electronics Systems *Upon successful completion of this course, students will be able to:*	**Related to Program Level SLO#**
1. Perform general electrical system diagnosis.	1,3
2. Service battery and starting system.	1,3
3. Diagnosis and repair lighting system.	1,3
4. Determine cause of inoperative electronic gauges and accessories, determine required action.	1,3

AST170 Heating & Air-Conditioning *Upon successful completion of this course, students will be able to:*	**Related to Program Level SLO#**
1. Conduct performance check on A/C system and determine concern.	5
2. Recover and recycle refrigerant and charge A/C system.	5
3. Service A/C system components.	
4. Perform diagnostics on heating, ventilation, and engine cooling system and perform needed repairs.	5
5. Diagnosis and repair A/C and heating related controls.	5

AST180A Engine Performance I *Upon successful completion of this course, students will be able to:*	**Related to Program Level SLO#**
1. Perform general engine diagnosis.	1,2
2. Diagnose and repair computerized engine controls.	1,3
3. Ascertain fault causes in ignition system and perform needed repairs.	1,3
4. Perform engine related maintenance and service procedures.	1,3

AST180B Engine Performance II (Fuel & Emissions Systems) *Upon successful completion of this course, students will be able to:*	**Related to Program Level SLO#**
1. Perform intermediate level engine diagnostics.	1,2,3
2. Diagnose and repair faults in the fuel, air induction, and exhaust system.	1,3
3. Determine fault causes in the emission control system and perform need repairs.	1,3

AST210 Theory/Practicum: Engine Repair *Upon successful completion of this course, students will be able to:*	**Related to Program Level SLO#**
1. Remove and reinstall engine assemble with minimal supervision.	1
2. Repair problems related to the cylinder head and value train.	1
3. Diagnose and repair cylinder block related faults.	1
4. Service cooling and lubrication system.	1

AST220 Theory/Practicum: Automotive Transmission and Transaxle *Upon successful completion of this course, students will be able to:*	**Related to Program Level SLO#**
1. Perform general transmission and transaxle diagnostics with minimal supervision.	4
2. Demonstrate advance in-vehicle transmission and transaxle service and repairs.	4
3. Remove, disassemble, repair, and reinstall transmission and transaxle.	4

AST250 Theory/Practicum: Brakes *Upon successful completion of this course, students will be able to:*	**Related to Program Level SLO#**
1. Diagnose general brake system malfunctions.	1
2. Repair the hydraulic system.	1
3. Ascertain and remedy drum brake system failures.	1
4. Diagnose and repair disc brake system failures.	1
5. Diagnose and repair antilock brake and traction control systems.	1

AST260 Theory/Practicum: Electrical/Electronic *Upon successful completion of this course, students will be able to:*	**Related to Program Level SLO#**
1. Perform advance body electrical system diagnostics.	3
2. Test and service battery.	3
3. Diagnose and repair faults in the charging and starting system.	3

AST270 Theory/Practicum: Heating and Air Conditioning *Upon successful completion of this course, students will be able to:*	**Related to Program Level SLO#**
1. Perform advance diagnostic on air conditioning and heating systems.	5
2. Replace air conditioning and heating system components with minimal supervision.	5
3. Diagnose and repair operating and control system.	5

AST280 Theory/Practicum: engine Performance *Upon successful completion of this course, students will be able to:*	**Related to Program Level SLO#**
1. Perform advance engine performance diagnostics.	2
2. Locate faults in the computerized control system with minimal supervision.	2
3. Diagnose and repair ignition, fuel, air induction, and exhaust related problems with minimal supervision.	2

Program Level SLOs

COMPUTER NETWORKING/A.S.													
I = Introduced R = Reinforced E = Emphasized **List course alpha and no.** ⇨	EE103	EE104	EE112	EE116	EE211	EE215	EE241	EE243	EE265	EE266	EE267	EE268	
Student Learning Outcomes – Program Level Upon successful completion of this program, students will be able to:													
1. Be trained and certified in computer repair.	**E**	**E**	**I**	**I**	**IRE**	**IR**	**I**	**I**	**I**				
2. Install and configure Computer Network Systems.	**E**	**E**	**I**	**I**	**I**	**IR**	**IR**	**IR**	**I**	**RE**	**RE**	**RE**	
3. Be trained and certified in Networking.	**E**	**E**	**I**	**I**	**I**	**IR**	**IR**	**IR**	**I**	**RE**	**RE**	**RE**	

Course Level SLOs

EE103 Electricity I: Direct Current Circuits *Upon successful completion of this course, students will be able to:*	**Related to Program Level SLO#**
1. Describe how to measure voltage, current and resistance on electrical circuits.	3
2. Identify different types of conducting materials and electrical properties.	1
3. Describe and apply ohm's law formulas in solving electronic and electrical problems.	3
4. Use electronic and electrical hand tools properly.	1
5. Perform laboratory experiments in direct current circuits.	1

EE104 Electricity II: Alternating Current Circuits *Upon successful completion of this course, students will be able to:*	**Related to Program Level SLO#**
1. Identify and describe safety rules as applied to electricity and electronics.	3
2. Describe how to use laboratory oscilloscope to measure voltage, frequency, and period (time).	3
3. Illustrate and explain different transformers turn's ratio, voltage ratio, and current ratio.	1
4. Describe resonance and its effects in electronic communication circuits.	3
5. Perform laboratory experiments in alternative current circuits.	1

EE112 Electronic Devices *Upon successful completion of this course, students will be able to:*	**Related to Program Level SLO#**
1. Design a power supply circuit.	1
2. Identify each part of a power supply system.	1
3. Calculate the voltage gain for a transistor amplifier circuit.	1

EE116 Digital Technology *Upon successful completion of this course, students will be able to:*	**Related to Program Level SLO#**
1. Design a simple counter circuit.	1
2. Simplify logic circuits using k-map.	1,2
3. Identify different types of logic circuits.	1

EE211 IT Essentials I *Upon successful completion of this course, students will be able to:*	**Related to Program Level SLO#**
1. Describe the internal components of a computer.	
2. Assemble a computer system.	
3. Install an Operating System.	
4. Troubleshoot using system tools and diagnostic software.	

EE215 IT Essentials II *Upon successful completion of this course, students will be able to:*	**Related to Program Level SLO#**
1. Upgrade laptop components based on customer needs.	
2. Perform preventive maintenance and troubleshooting on components of a printer/scanner.	
3. Install a network; upgrade components based on customer needs and perform preventive maintenance and advanced trouble shooting.	

EE241 Category 5 Wire & Test Certification *Upon successful completion of this course, students will be able to:*	**Related to Program Level SLO#**
1. Define the TIA/EIA standards.	2,3
2. Do hands on training to install wore cable on cable tray.	1,2,3
3. Terminate cable onto jack and patch panels.	2,3
4. Test and certify cable installation as per TIA/EIA standards.	2,3

EE243 Fiber Optics Installation *Upon successful completion of this course, students will be able to:*	**Related to Program Level SLO#**
1. Install, terminate, and splice fiber optic cable.	2,3
2. Troubleshoot and repair fiber optic cable.	1,2,3
3. Use test equipments for troubleshooting (light source, power meter, optical time domain, reflectometer, & visible light source).	2,3

EE265 Computer Networking Academy I *Upon successful completion of this course, students will be able to:*	**Related to Program Level SLO#**
1. Recognize the devices and services that are used to support communications across an Internetwork.	2,3
2. Design, calculate, and apply subnet masks and addresses to fulfill given requirements.	2,3

EE266 Computer Networking II *Upon successful completion of this course, students will be able to:*	**Related to Program Level SLO#**
1. Install, configure, and troubleshoot Cisco IOS devices for Internet and server connectivity.	2,3
2. Describe the Open Systems Interconnect (OSI) model and the process of encapsulation.	2

EE267 Computer Networking III *Upon successful completion of this course, students will be able to:*	**Related to Program Level SLO#**
1. Configure a switch with VLANs and inter-switch communication.	2,3
2. Implement access lists to permit or deny specified traffic.	2,3
3. Configure routing protocols on Cisco devices.	2,3

EE268 Computer Networking IV *Upon successful completion of this course, students will be able to:*	**Related to Program Level SLO#**
1. Design a simple Interwork using Cisco technology.	2,3
2. Design an IP addressing scheme to meet LAN requirements.	2,3
3. Install and configure a prototype Internetwork.	2,3

Institutional Learning Outcomes (ILOs)

Name of Program Civil Engineering Technology **Associate of Science** **I = Introduced R = Reinforced E = Emphasized** **List course alpha and no.** ⇨	CE211	CE221	AE160	CE213	CE214	CE222	CE224			
Guam Community College students will acquire the highest quality education and job training that promotes workforce development and empowers them to serve as dynamic leaders within the local and international community. Students will demonstrate:										
Use of acquired skills in effective communication, and quantitative analysis with proper application of technology.	**IRE**	**IR**	**E**	**IRE**	**IRE**	**IRE**	**IRE**			
Ability to access, assimilate and use information ethically and legally.	**I**	**IR**		**I**	**IR**	**IR**	**IR**			
Mastery of critical thinking and problem-solving techniques.	**IRE**	**IRE**	**E**	**IRE**	**IRE**	**IRE**	**IRE**			
Collaborative skills that develop professionalism, integrity, respect, and fairness.	**IRE**	**IR**	**E**	**IR**	**IR**	**IR**	**IR**			
Civic responsibility that fosters respect and understanding of ethical, social, cultural, and environmental issues locally and globally.	**I**	**I**	**I**	**I**	**I**	**I**	**I**			

Program Level SLOS

CIVIL ENGINEERING TECHNOLOGY/A.S.													
I = Introduced R = Reinforced **E = Emphasized** **List course alpha and no.** ⇨	CE211	CE221	AE160	CE213	CE214	CE222	CE224						
Student Learning Outcomes – Program Level Upon successful completion of this program, students will be able to:													
1. Properly use surveying equipment and tools and perform applications accordingly.	**IRE**				**IR**	**IRE**	**IR**						
2. Create a construction drawing set consisting of at least six sheets from a design.		**I**	**IRE**		**IRE**	**I**	**I**						
3. Perform basic techniques and skills using modern engineering tools in the current civil engineering industry.	**IR**	**IRE**	**IR**	**IRE**	**IRE**	**IRE**	**IR**						
4. Sequence the steps related to the construction process in chronological order.		**IR**	**IR**	**IR**	**IRE**	**IR**	**IR**						

Course Level SLOs

CE211 Plane Surveying I *Upon successful completion of this course, students will be able to:*	**Related to Program Level SLO#**
1. Describe the fundamentals of chaining, leveling, and use of transit as it relates to plane surveying.	1, 3
2. Properly care, adjust, and use equipment in the plane surveying field.	1,3,4
3. Given a set of tasks, demonstrate proper use and application of surveying equipment and tools.	1,3,4

AE160 Computer Aided Design & Drafting (CADD) II *Upon successful completion of this course, students will be able to:*	**Related to Program Level SLO#**
1. Utilize a computer workstation to create a construction drawing set consisting of at least six sheets from a design.	2,3,4
2. Compile information about a building from architectural and engineering reference materials and produce an appropriate document that complies with codes and save it in an electronic medium.	3,4
3. Demonstrate intermediate two and three dimensional editing techniques.	3,4
4. Demonstrate how to prepare two and three dimensional drawings for architecture, interior design, mechanical and structural engineering, and other design fields.	2,3,4

CE221 Strength of Materials *Upon successful completion of this course, students will be able to:*	**Related to Program Level SLO#**
1. Describe the strengths and limitations of various types of building materials.	3,4
2. Discuss the testing process involved in determining stress, strains, deformations, and loads.	3,4
3. Explain typical applications for various types of construction materials.	2,3,4

CE213 Hydraulics *Upon successful completion of this course, students will be able to:*	**Related to Program Level SLO#**
1. Identify and describe basic fluid mechanics principles.	3,4
2. Apply knowledge gained to analyze water treatment operations.	3,4
3. Solve problems using appropriate tools including logic, models and applicable formulas.	3,4
4. Function as an aide to a civil engineer or a sanitary engineer in the design of ducts, piping and channels for irrigation systems.	3,4

CE214 Structural Design *Upon successful completion of this course, students will be able to:*	**Related to Program Level SLO#**
1. Successfully apply provisions of AISC and ACI publications in designing steel and concrete structural members.	2,3,4
2. Use tables and design aids as required.	3,4
3. Function as an aide to an architect or an engineer in the design of structural members.	2,3,4

CE222 Plane Surveying II *Upon successful completion of this course, students will be able to:*	**Related to Program Level SLO#**
1. Demonstrate a variety of surveying techniques.	1,3,4
2. Apply appropriate skills using proper surveying instruments given various tasks.	1,3,4
3. Discuss reconnaissance, preliminary, and construction surveys.	1,3,4

CE224 Highways *Upon successful completion of this course, students will be able to:*	**Related to Program Level SLO#**
1. Have a fundamental understanding of the current state of the art of Highway Engineering.	3,4
2. Comprehend and apply the concept of Level of Service in highways and intersections.	3,4
3. Solve problems of Signal Timing.	3,4
4. Solve problems relating to basic roadway design.	3,4
5. Solve problems involving pavement design.	3,4

Program Level SLOs

COMPUTER SCIENCE/CERTIFICATE & A.S.													
I = Introduced R = Reinforced E = Emphasized **List course alpha and no.** ⇨	CS101	CS102	CS110	CS203	CS205	CS252	CS103	CS104	CS202	CS204	CS151	CS298	
Student Learning Outcomes – Program Level Upon successful completion of this program, students will be able to:													
1. Demonstrate a solid foundation in the core areas of computer science, and knowledge of advance topics studied in appropriate elective courses.	**I**	**IR**	**IR**	**RE**	**IR**	**RE**	**IR**	**IR**	**IR**	**IR**	**I**	**RE**	
2. Apply the knowledge and skills gained from the courses to make an evaluation of which os possible options best meets the needs of a problem.	**I**	**IR**	**IR**	**RE**	**IR**	**RE**	**IR**	**IR**	**IR**	**IR**	**IE**	**RE**	
3. Deisgn and implement a computer-based solutiopn of a problem by writing code using an appropriae probramming language.	**I**	**IR**	**IR**	**RE**	**IR**	**RE**	**IR**	**IR**	**IR**	**IR**			

Course Level SLOs

CS101 Intro. to Computer Systems & Info Tech *Upon successful completion of this course, students will be able to:*	**Related to Program Level SLO#**
4. Demonstrate knowledge of computer hardware and software concepts.	1
5. Apply computer skills to navigate around a computer choose the proper application software to produce a desired result and access information on the World Wide Web.	1,2
6. State the social and ethical implications of computers in business and society.	1,2

CS110 Introduction to Internet *Upon successful completion of this course, students will be able to:*	**Related to Program Level SLO#**
5. Use the Internet to communicate, collaborate and retrieve information.	1
6. Identify positive social and ethical behaviors when using technology and the consequences of misuse.	1
7. Plan, design and publish a Website.	1,2

CS102 Computer Operations *Upon successful completion of this course, students will be able to:*	**Related to Program Level SLO#**
1. Contrast single user and multi-user operating systems.	1,2
2. Use system utilities at the basic level on AS/400.	1,2
3. Create a simple menu system using Command Language (CL) program and Screen Design Aid (SDA).	1,2,3

CS252 Advanced RPG II *Upon successful completion of this course, students will be able to:*	**Related to Program Level SLO#**
1. Comprehend basic syntax and command structure.	1
2. Properly use commands to create programs to solve problems.	2,3
3. Debug programs to find syntax and logical errors.	2,3
4. Integrate the previously covered material into a larger complex system (using RPG, CL, SEU, SDA, IDDU, etc.).	2,3

CS103 RPG II *Upon successful completion of this course, students will be able to:*	**Related to Program Level SLO#**
1. Comprehend basic syntax and command structure of RPG.	1
2. Properly use commands to create programs to solve problems.	2,3
3. Debug programs to find syntax and logical errors.	2,3

CS104 Visual Basic Programming *Upon successful completion of this course, students will be able to:*	**Related to Program Level SLO#**
1. Comprehend basic syntax and command structure of Visual Basic Programming.	1
2. Properly use commands to create programs to solve problems.	2,3
3. Debug programs to find syntax and logical errors.	2,3

CS202 COBOL *Upon successful completion of this course, students will be able to:*	**Related to Program Level SLO#**
1. Comprehend basic syntax and command structure of COBOL.	1
2. Properly use commands to create programs to solve problems.	2,3
3. Debug programs to find syntax and logical errors.	2,3

CS204 C Programming *Upon successful completion of this course, students will be able to:*	**Related to Program Level SLO#**
1. Comprehend basic syntax and command structure C language.	1
2. Properly use commands to create programs to solve problems.	2,3
3. Debug programs to find syntax and logical errors.	2,3

CS203 Systems Analysis & Design *Upon successful completion of this course, students will be able to:*	**Related to Program Level SLO#**
1. Investigate the initial system request.	1
2. Analyze various aspects of the system request, and produce system requirement documents.	1
3. Design the solution to meet the system requirement documents (virtual solution).	2
4. Develop program code to meet the system requirement (actual solution).	2,3
5. Implement the actual solution into the system and dine tune it to best meet the needs of the users.	2,3

CS205 Network Communications *Upon successful completion of this course, students will be able to:*	**Related to Program Level SLO#**
1. Identify the hardware and software components of a local area network	1
2. Describe various LAN topologies and communication standards.	1
3. Identify and perform LAN backup procedures.	2

CS151 Windows Applications *Upon successful completion of this course, students will be able to:*	**Related to Program Level SLO#**
1. Create, edit, format and print documents using Microsoft Word.	2
2. Create spreadsheets and charts to solve problems that involve numeric data using Microsoft Excel.	2
3. Create database to store, retrieve, analyze and print information using Microsoft Access.	2
4. Create, edit, and format professional presentations using Microsoft PowerPoint.	2

CS298 Co-op/Work Learn *Upon successful completion of this course, students will be able to:*	**Related to Program Level SLO#**
1. Obtain supervised work experience to develop skills necessary to succeed in information technology positions.	1
2. Demonstrate effective human relation skills with co-workers and subordinates according to the expectations of a supervisor.	2
3. Apply principles of personal responsibility and ethical behavior to the community and in the workplace.	2

Program Level SLOs

CRIMINAL JUSTICE/A.S.													
Yellow = Administration of Criminal Justice, Blue = Law Enforcement Administration, and Green = both **I = Introduced R = Reinforced** **E = Emphasized** **List course alpha and no.** ⇨	CJ100	CJ150	CJ200	CJ206	CJ101	CJ107	CJ204	CJ209	CJ205	CJ225	CJ250		
Student Learning Outcomes – Program Level Upon successful completion of this program, students will be able to:													
1. Identify the legal procedures for gathering information about crimes, criminal procedure, and defendants' rights.	**I**	**IRE**	**R**	**R**	**I**	**I**	**R**	**R**	**R**	**R**	**R**		
2. Describe the prcdess of the criminal justice system and the duties and responsibilities of the criminal justice professional.	**I**	**IRE**	**RE**	**R**	**I**	**I**	**IR**	**RE**	**RE**	**RE**	**RE**		
3. Demonstrate the ability to understand the interrelations, ethics and role expectations of the criminal jsutce professional in society.	**I**	**I**	**R**	**RE**	**I**	**I**	**RE**	**RE**	**R**	**R**	**RE**		

Course Level SLOs

CJ100 Introduction to Criminal Justice *Upon successful completion of this course, students will be able to:*	**Related to Program Level SLO#**
1. Describe the history and development of the Criminal Justice System.	
2. Indentify the role of the Criminal Justice System in contemporary society.	3
3. Describe the functions of law enforcement, courts and corrections.	2
4. Describe the functions of probation, parole and the Juvenile Justice System.	2

CJ150 Criminal Procedure *Upon successful completion of this course, students will be able to:*	**Related to Program Level SLO#**
1. Describe the history and development of the U.S. Court System, court cases and sources of rights.	1
2. Identify the procedural Criminal Law process.	2
3. Define how the courts intercept cases and the concept of stare decisis.	3
4. Understand and apply Title 8 Guam Code Annotated, Criminal Procedure Code, to hypothetical situations.	2

CJ200 Criminal Law *Upon successful completion of this course, students will be able to:*	**Related to Program Level SLO#**
1. Describe the history and development of Criminal Law and the U.S. Court System.	2
2. Identify the substantive Criminal law process.	2
3. Define the elements of a crime and probable cause.	1
4. Apply Title 9, the Criminal Code and 16, Vehicle Code 3, Guam Code Annotated, to hypothetical situations.	2

CJ206 Social Values & the Criminal Justice Process *Upon successful completion of this course, students will be able to:*	**Related to Program Level SLO#**
1. Explain and analyze community-based philosophy of policing.	3
2. Demonstrate understanding of the role of police and professionalism.	3
3. Identify the various ethical issues of policing.	3
4. Identify how political, social, and economics issues relate to law enforcement.	3

CJ101 Juvenile Justice Process *Upon successful completion of this course, students will be able to:*	**Related to Program Level SLO#**
1. Describe the history and development of the Juvenile Justice System.	2
2. Identify the roles of the Juvenile Justice System in contemporary society.	2
3. Define the concept of "parens patriae" and how the courts interpret its meaning.	2
4. Apply Title 19 Guam Code Annotated, Chapter 5, The Family Court Act to hypothetical situations.	2

CJ107 Introduction to Corrections *Upon successful completion of this course, students will be able to:*	**Related to Program Level SLO#**
1. Explain and analyze the correctional process, the correctional system, and the role of corrections in contemporary society.	1
2. Evaluate the history and evolution of the correctional process.	2
3. Identify the various correctional systems.	
4. Examine the administration and trends in corrections.	3

CJ204 Introduction to Criminology *Upon successful completion of this course, students will be able to:*	**Related to Program Level SLO#**
1. Explain and analyze crime, criminology, and the criminal justice system.	1
2. Evaluate the history and evolution of criminology.	1
3. Identify the various theories of crime causation.	1,3
4. Identify the various crime typologies.	1

CJ209 Concepts of Police Operations *Upon successful completion of this course, students will be able to:*	**Related to Program Level SLO#**
1. Explain and evaluate the structure, organization, and management of police or other law enforcement agency.	2,3
2. Explain and analyze the various types of police operations and the methods and strategies used to implement policies and other executive decisions.	2
3. Demonstrate understanding of the interrelations, role, conflict and trends of police and law enforcement in modern society.	3

CJ205 Police Report Writing *Upon successful completion of this course, students will be able to:*	**Related to Program Level SLO#**
1. Identify the substantive Criminal Law process.	1
2. Define the elements of a crime and determine if probable cause exists to charge a defendant with a criminal act.	1
3. Demonstrate understanding of the various law enforcement forms and how to apply it to hypothetical situations.	2
4. Apply Title 9, the Criminal Code and 16, Vehicle Code, Guam Code Annotated, to hypothetical situations.	3

CJ225 Criminal Investigation *Upon successful completion of this course, students will be able to:*	**Related to Program Level SLO#**
1. Apply the various methods used in investigating criminal cases to hypothetical situations.	1
2. Explain and evaluate the investigation, processing, and preservation of a crime scene.	1
3. Identify and analyze the various methods used to obtain information.	1

CJ250 Police Organizational Theory *Upon successful completion of this course, students will be able to:*	**Related to Program Level SLO#**
1. Apply the various management theories and styles.	3
2. Explain and evaluate the structure and organization of police and other law enforcement agencies.	3
3. Identify and analyze the concepts of leadership, decision making, accountability, responsibility, and liability.	3

Program Level SLOs

CULINARY ARTS/A.S.													
I = Introduced R = Reinforced E = Emphasized **List course alpha and no.** ⇨	HS237	HS238	HS244	HS245	HS246	HS247	HS248	HS249	HS293				
Student Learning Outcomes – Program Level Upon successful completion of this program, students will be able to:													
1. Demonstrate knowledge in culinary terms, methods, and applications.	**I**	**R**	**R**	**I**	**RE**	**R**	**R**	**RE**	**RE**				
2. Interpret the fundamentals of food servicdes as they apply to the work of a culinary practiontioner.	**I**	**R**	**R**	**I**	**RE**	**R**	**R**	**RE**	**RE**				
3. Demonstrate positive work ethic as required of students in the culinary arts field.	**I**	**R**	**R**	**I**	**RE**	**R**	**R**	**RE**	**RE**				

Course Level SLOs

HS237 Principles of European Cuisine *Upon successful completion of this course, students will be able to:*	**Related to Program Level SLO#**
1. Demonstrate positive work ethics required to use practical recipes in the preparation of European Cuisine in the traditional ways.	1
2. Perform skills and takes associated with the culinary field of European cuisine through skill development and the details of preparation associated with the demands that Escoffier has established in a professional kitchen.	2
3. Interpret the fundamentals of Escoffier to prepare and adapt new ideas of food service, as emphasis will be placed on classical cuisine, and presentation of the different varieties foods from the regions of Europe and the Mediterranean.	3

HS238 Garde Manager – The Art & Craft for the Cold Kitchen *Upon successful completion of this course, students will be able to:*	**Related to Program Level SLO#**
1. Demonstrate positive work ethics using practical recipes in garde manager for the production of cold food preparations, salads, dressings, appetizers and hor d' ouevers for impressive plate presentations that incorporate techniques that utilize the tools that are needed in garde manager.	1
2. Perform skills and tasks associated in garde manager through skill development and application of techniques under pressures associates with the demands in a professional garde manager kitchen.	2
3. Interpret the fundamentals of garde manager; emphasis will be placed on the preparation and presentation of the different varieties of cold food preparations, salads, dressings, appetizers and hors d' oeuvres, and application of the importance of Mise en place and culinary terms used in Garde Manager.	3

HS244 Baking – Fundamentals of Breads & Baking *Upon successful completion of this course, students will be able to:*	**Related to Program Level SLO#**
1. Demonstrate knowledge of the 12 steps in the baking process from scaling, mixing, bulk fermentation, folding, dividing, pre-shaping, bench resting, shaping, final fermentation, scoring, baking and cooling.	1
2. Discuss the importance of starters, structure, builders, tenderizers, moisteners, and driers used in bread making.	2
3. Demonstrate the production of flat breads, yeast breads & straight dough's, yeasted pre-ferments, levain breads, sourdough breads, braiding techniques and decorative breads using various	3

HS245 Food Production Principles *Upon successful completion of this course, students will be able to:*	**Related to Program Level SLO#**
1. Discuss the different types of jobs related to the culinary industry.	1
2. Demonstrate the proper use of various kitchen equipment, chemicals and cooking techniques in a professional and safe manner.	2
3. Understanding the importance of keeping the kitchen clean, proper chemical use and proper cooking techniques.	3

methods.	

HS246 Buffet Service/Catering *Upon successful completion of this course, students will be able to:*	**Related to Program Level SLO#**
1. Write a theme buffet menu, cost the menu, prepare the menu, serve the menu, clean up after the menu and submit an event closing report.	1
2. Evaluate problems that can arise in the kitchen and make appropriate decisions on how to resolve such problems.	2
3. Lead a team of cooks through production and service professionally and in a timely manner.	3

HS247 International Cuisine *Upon successful completion of this course, students will be able to:*	**Related to Program Level SLO#**
1. Discuss the cultural importance and the ingredients used in the countries studied.	1
2. Demonstrate the cooking techniques used in Asian cuisines and understand why they are used.	2
3. Demonstrate understanding of the importance of the foods used and eaten in Asian cultures.	3

HS248 Patissier Fundamentals of Patisserie *Upon successful completion of this course, students will be able to:*	**Related to Program Level SLO#**
1. Demonstrate positive work ethics using practical recipes in the pastery kitchen Pastisserie for the production of cakes, puff pastries, creams, and soufflés, for impressive plate presentations that incorporates techniques that utilize the tools needed to produce pastries.	1
2. Perform skills and tasks associated with the culinary field of patisserie through skills development and aaplication of techniques under pressures associated with the demands in a professional pastry production kitchen.	2
3. Interpret the fundamentals of Patisserie food service, as emphasis will be placed on the preparation and presentation of the different varieties of pastries.	3

HS249 Advanced food Preparation *Upon successful completion of this course, students will be able to:*	**Related to Program Level SLO#**
1. Demonstrate positive work ethics using practical recipes in Advanced Food Preparation for the production of soups, salads, cold foods, fish and sea food, poultry, and meats, for impressive plate presentations.	1
2. Perform skills and tasks associated with Advance Food Preparation through skill development an application of techniques under pressures associated with the demands in a professional kitchen after completion of this course.	2
3. Interpret the fundamentals of Advanced Food Preparation; emphasis will be placed on the preparation and presentation through mise en place, fabrication, grilling, broiling, roasting, baking, sauté, pan frying, deep frying, steaming, submersion cooking, braising, and stewing, remaining true to the principles that govern classical and contemporary cooking concepts in the world of culinary arts.	3

HS293 Culinary Practicum *Upon successful completion of this course, students will be able to:*	**Related to Program Level SLO#**
1. Demonstrate positive work ethics in a enthusiastic manner through team work in a professional kitchen and to work at constant speed at tasks as time permits.	1
2. Perform skills and tasks without continuous supervision established through skill development and application of techniques under pressures associated with the demands in a professional kitchen.	2
3. Interpret the duties as assigned by the supervisor in charge relevant to the competency requirements adhering to all safety regulations. (Emphasis will be placed on the preparation and maintenance of a clean and neat work area at the end of the work schedule in a professional kitchen.)	3

Program Level SLOs

EARLY CHILDHOOD EDUCATION/CERTIFICATE & A.S.													
I = Introduced R = Reinforced E = Emphasized **List course alpha and no.** ⇨	CD110	CD140	CD180	CD221	CD240	CD260	CD280	ED231	ED281	CD292			
Student Learning Outcomes – Program Level Upon successful completion of this program, students will be able to:													
Demonstrate the knowledge and skills needed to design an environment that is conducive to learning for infants, toddlers and young children.	**I**	**R**	**I**	**I**	**IR**	**R**	**R**	**R**	**R**	**E**			
Demonstrate developmentally and age-appropriate teaching strategies needed to effectively work with young children (ages birth through eight years).	**I**	**I**	**I**		**R**		**R**	**R**	**R**	**E**			
Demonstrate appropriate disposition and skills needed to effectively work with young children and families who come from different nationalities, cultures and ethnic groups and/or have special needs including those who speak languages other than English.		**I**	**I**	**I**		**R**	**R**	**E**	**E**	**E**			

Course Level SLOs

CD110 ECE Orientation *Upon successful completion of this course, students will be able to:*	**Related to Program Level SLO#**
1. Demonstrate basic knowledge of all developmental domains related to childhood.	2
2. Demonstrate basic knowledge and skills needed to create a developmentally appropriate learning environment for young children.	
3. Explore various careers in the early childhood education field and determine related future goals.	1

CD140 Environments for Young Children *Upon successful completion of this course, students will be able to:*	**Related to Program Level SLO#**
1. Demonstrate skills needed to design a safe environment for young children.	1
2. Demonstrate strategies for the promotion of good health in the early childhood environment.	2

CD180 Language Arts in Early Childhood *Upon successful completion of this course, students will be able to:*	**Related to Program Level SLO#**
1. Demonstrate knowledge in the language developmental domains as it relates to young children.	2
2. Plan and implement activities for young children which develop and enhance language skills, and promote literacy.	1

CD221 Child Growth & Development *Upon successful completion of this course, students will be able to:*	**Related to Program Level SLO#**
1. Describe the social, physical and cognitive development of infants and toddlers.	1
2. Describe the social, physical and cognitive development of preschoolers.	2

CD240 Cognitive & Creative Development *Upon successful completion of this course, students will be able to:*	**Related to Program Level SLO#**
1. Demonstrate the ability to incorporate creativity in all content areas of a developmentally appropriately early childhood learning environment.	2
2. Plan, write, and implement creative lessons and activities for young children that focus on math, science, art, imagination, and pre-literacy.	2
3. Demonstrate knowledge of current practices and methods for teaching mathematics, art, and science.	

CD260 Social & Emotional Development *Upon successful completion of this course, students will be able to:*	**Related to Program Level SLO#**
1. Demonstrate knowledge in the domains of social and emotional development in young children.	2
2. Demonstrate skills in child management techniques that foster self-concept, positive self-esteem, and social behaviors.	2
3. Apply skills in using positive guidance in an early childhood setting.	2

CD280 Program Development & the Family Partnership *Upon successful completion of this course, students will be able to:*	**Related to Program Level SLO#**
1. Discuss developmentally appropriate practices that meet the needs of young children and their families.	3
2. Demonstrate appropriate attitude and skills in working with parents and families.	3
3. Demonstrate knowledge of different early childhood programs.	2

ED231 Intro to Exceptional Children *Upon successful completion of this course, students will be able to:*	**Related to Program Level SLO#**
1. Describe ways to modify curriculum and provide accommodations for student with disabilities.	1
2. Demonstrate an understanding and respect for the family with a special needs child as well as develop strategies to empower families.	3
3. Demonstrate an understanding of the process of referral, screening, assessment, Individual Family Service Plan and Individual Educational Plan development including the major team members.	2

ED281 Bilingual/Bicultural Education *Upon successful completion of this course, students will be able to:*	**Related to Program Level SLO#**
1. Demonstrate ways of creating a multicultural environment.	1
2. Demonstrate an understanding of involving parents and families in creating and maintaining a multicultural classroom.	3
3. Demonstrate the ability to use multicultural learning materials and techniques with students in the classroom.	3

CD292 ECE Practicum *Upon successful completion of this course, students will be able to:*	**Related to Program Level SLO#**
1. Demonstrate professionalism and ethical conduct within the educational field.	1
2. Demonstrate appropriate knowledge, disposition, and skills needed to effectively work with students, including those from culturally and linguistically diverse backgrounds, and students with special needs.	2
3. Plan and demonstrate developmentally and age-appropriate teaching strategies needed to effectively work with students in a classroom setting.	2

Program Level SLOs

EDUCATION/CERTIFICATE & A.S.													
I = Introduced R = Reinforced E = Emphasized **List course alpha and no.** ⇨	ED100	ED150	ED180	ED200	ED220	ED231	ED281	ED292					
Student Learning Outcomes – Program Level Upon successful completion of this program, students will be able to:													
Demonstrate professionalism and ethical conduct within the educational field.	**I**	**IR**	**I**		**I**	**R**		**E**					
Demonstrate appropriate disposition and skills needed to effectively work with students who come from different nationalities, cultures and ethnic groups and/or have special needs including those who speak languages other than English.	**E**	**R**	**IR**			**RE**	**E**	**E**					
Demonstrate developmentally and age-appropriate teaching strategies needed to effectively work with students in a classroom setting.	**IRE**	**R**	**IR**	**IR**		**RE**	**E**	**E**					

Course Level SLOs

ED150 Introduction to Teaching *Upon successful completion of this course, students will be able to:*	**Related to Program Level SLO#**
1. Articulate a comprehensive academic plan to include goals and objectives towards a profession in education.	1
2. Develop a philosophy of education that includes personal efficacy.	3
3. Synthesize and apply diverse teaching/learning strategies towards a cohesive presentation on a topic.	3

ED180 Educational Methods *Upon successful completion of this course, students will be able to:*	**Related to Program Level SLO#**
1. Demonstrate basic knowledge of educational methods.	1
2. Plan and implement lesson plans, including the preparation of instructional materials that incorporate different methodologies and strategies.	2
3. Plan and implement educational games and activities.	2

ED200 Instructional Technology *Upon successful completion of this course, students will be able to:*	**Related to Program Level SLO#**
1. Use computers as a teaching tool and resource.	1
2. Develop computer-based instructional tools.	3
3. Operate basic technologies that support teaching and learning in the classroom.	3

ED180 Educational Methods *Upon successful completion of this course, students will be able to:*	**Related to Program Level SLO#**
1. Demonstrate basic knowledge of educational methods.	1
2. Plan and implement lesson plans, including the preparation of instructional materials that incorporate different methodologies and strategies.	2
3. Plan and implement educational games and activities.	2

ED220 Human Growth & Development *Upon successful completion of this course, students will be able to:*	**Related to Program Level SLO#**
1. Describe the social, physical and cognitive development of adolescent and adult learners.	3
2. Demonstrate an understanding of how society, culture, and family impact individuals at each stage of their development and growth.	2
3. Describe the social, physical, and cognitive development of school-age learners.	

ED231 Intro to Exceptional Children *Upon successful completion of this course, students will be able to:*	**Related to Program Level SLO#**
1. Describe ways to modify curriculum and provide accommodations for students with disabilities.	3
2. Demonstrate an understanding and respect for families who have children with disabilities, and develop strategies to empower families.	3
3. Demonstrate an understanding of the process of referral, screening, and assessment, including knowledge of the roles and responsibilities of primary team members.	2

ED270 Behavior Management *Upon successful completion of this course, students will be able to:*	**Related to Program Level SLO#**
1. Demonstrate knowledge and skills in the area of behavior management.	3
2. Demonstrate teaching strategies to promote and encourage positive classroom behaviors.	3
3. Develop various modification plans given different scenarios.	2,3

ED281 Bilingual/Bicultural Education *Upon successful completion of this course, students will be able to:*	**Related to Program Level SLO#**
1. Demonstrate ways of creating a multicultural environment.	1
2. Demonstrate an understanding of involving parents and families in creating and maintaining a multicultural classroom.	3
3. Demonstrate the ability to use multicultural learning materials and techniques with students in the classroom.	3

ED292 Education Practicum *Upon successful completion of this course, students will be able to:*	**Related to Program Level SLO#**
1. Demonstrate professionalism and ethical conduct within the educational field.	1
2. Demonstrate appropriate disposition and skills needed to effectively work with diverse students, including those from different cultural and linguistic backgrounds, and those with special needs.	2
3. Demonstrate developmentally and age-appropriate teaching strategies needed to effectively work with students in a classroom setting.	3

Institutional Learning Outcomes (ILOs)

Name of Program Food & Bevarge Management **Associate of Science** **I = Introduced R = Reinforced** **E = Emphasized** **List course alpha and no.** ⇨	HS150	HS155	HS160	HS203a	HS203b	HS206	HS208	HS222	HS245	HS294a,b	HS140		
Guam Community College students will acquire the highest quality education and job training that promotes workforce development and empowers them to serve as dynamic leaders within the local and international community. Students will demonstrate:													
Use of acquired skills in effective communication, and quantitative analysis with proper application of technology.	**I**		**I**			**R**			**E**	**RE**	**I**		
Ability to access, assimilate and use information ethically and legally.	**I**	**I**		**IR**	**IR**	**IR**	**IR**	**E**	**E**	**RE**	**I**		
Mastery of critical thinking and problem-solving techniques.	**I**			**IR**	**IR**	**IR**	**IRE**	**IRE**	**IRE**	**RE**	**IR**		
Collaborative skills that develop professionalism, integrity, respect, and fairness.	**I**	**I**		**IR**	**IR**	**IR**	**RE**	**RE**	**RE**	**RE**	**IR**		
Civic responsibility that fosters respect and understanding of ethical, social, cultural, and environmental issues locally and globally.	**I**					**I**		**R**		**RE**			

Program Level SLOs

FOOD & BEVERAGE MANAGEMENT/A.S.													
I = Introduced R = Reinforced **E = Emphasized** **List course alpha and no.** ⇨	HS150	HS155	HS160	HS203a	HS203b	HS206	HS208	HS222	HS245	HS294a,b	HS140		
Student Learning Outcomes – Program Level Upon successful completion of this program, students will be able to:													
1. Demonstrate competency in the skills needed to work as a professional in the Food & Beverage industry.	**I**	**IRE**	**IRE**	**IRE**	**IRE**	**IRE**	**IRE**	**IRE**	**IRE**	**R**	**I**		
2. Demonstrate preparedness to sucessfully pass one of several local and/or nationally recognized Food & Beverage Certification Exams.	**I**	**IRE**	**IRE**	**IRE**	**IRE**	**IRE**	**IRE**	**IRE**	**IRE**	**R**	**I**		
3. Apply an appropriate work ethic and professional demeanor as it relates to the Food & Beverage industry.	**IRE**	**IRE**	**IR**	**IR**	**IRE**	**RE**	**R**	**IRE**		**R**			

Course Level SLOs

HS150 Welcome to Hospitality *Upon successful completion of this course, students will be able to:*	**Related to Program Level SLO#**
1. Describe all facets and segments of tourism and hospitality industry.	1
2. Identify career opportunity in the tourism and hospitality industry.	1
3. Explain how tourism and hospitality segment work together to achieve objectives and goals.	1

HS155 Basic Hotel & Restaurant Accounting *Upon successful completion of this course, students will be able to:*	**Related to Program Level SLO#**
1. Define and describe bookkeeping and double entry accounting and identify common bookkeeping accounting tools.	1,2
2. Describe the income statement, identify the accounts used to prepare an income statement, define the revenue classification, and explain when a sale is recognized.	1
3. Describe the income statements and accounting procedures for full service and fast food restaurants in accordance with the uniform system of accounts for the lodging industry.	1
4. Discuss all budgeting and forecasting related competencies.	1

HS203A Food Safety & Sanitation ServSafe *Upon successful completion of this course, students will be able to:*	**Related to Program Level SLO#**
1. Identify food that is most likely to become unsafe, known as temperature control for safety (TCS) foods.	1
2. Identify the factors that affect the growth of food-borne bacteria in TCS foods.	2
3. Demonstrate proper hygienic procedures or processes that foodservice employees use to prevent the spread of food borne illness and cross contamination of food.	2
4. Identify how active managerial control can impact food safety.	2

HS203B Food Safety & Sanitation *Upon successful completion of this course, students will be able to:*	**Related to Program Level SLO#**
1. Identify the benefits of a food safety risk management program.	2
2. Explain why the temperature danger zone (TDZ) is important to food safety.	2
3. Identify the seven HACCP Principles and ten Critical Control Points.	2
4. Develop a SRM using the HACCP method.	2

HS206 Principles of Mixology & Beverage Management *Upon successful completion of this course, students will be able to:*	**Related to Program Level SLO#**
1. Describe and evaluate the effectiveness of front office (a) procedures, (b) operations, (c) human resource management, and (d) management.	1
2. Explain the history of popular beverages.	1
3. Demonstrate effective mixology techniques.	1

HS208 Food & Beverage Service *Upon successful completion of this course, students will be able to:*	**Related to Program Level SLO#**
1. Describe essential attitudes, knowledge and skills needed to become efficient and effective food and beverage employers, supervisors and managers.	1
2. Identify causes, assess potential solutions, and formulate a plan of action to address all negative moment of truth encountered by guests.	1
3. Develop an appropriate sequence of service for various food and beverage establishments.	1,3
4. Prepare a three day training program and outline training objectives for a fine dining restaurant.	1
5. Demonstrate knowledge and skills in providing American, English, Russian, and French service in various food and beverage establishments.	1
6. Evaluate if a food and beverage establishment's service procedure is properly implemented and managed.	1

HS222 Food & Beverage Cost Control *Upon successful completion of this course, students will be able to:*	**Related to Program Level SLO#**
1. Describe essential attitude, knowledge and skills needed to become efficient and effective food and beverage cost controller.	1,2
2. Develop food and beverage standards for various food and beverage establishments.	1,2,3
3. Formulate effective revenue control systems.	1
4. Design effective labor cost control systems.	1
5. Calculate and compare actual food and beverage costs to the budgeted food and beverage costs, and suggest plan of actions to address any variances.	1
6. Evaluate if a food and beverage establishment's food and beverage cost control function, systems and procedures are properly implemented and managed.	1

HS145 Culinary Math *Upon successful completion of this course, students will be able to:*	**Related to Program Level SLO#**
1. Convert units of measure of volume or weight.	1
2. Calculate yield percentages for food recipes.	1,3
3. Calculate kitchen ratios.	1,3
4. Calculate various costs including, As Purchased Cost vs. Edible Portion Cost.	

HS140 Menu Planning *Upon successful completion of this course, students will be able to:*	**Related to Program Level SLO#**
1. Demonstrate positive work ethic required of them in the field of Culinary Arts.	1
2. Demonstrate knowledge in culinary terms, methods, and application.	1
3. Interpret the fundamentals of food service as it applies to the work of a Culinarian.	1

Institutional Learning Outcomes (ILOs)

Name of Program Hotel Operations and Management **Associate of Science** **I = Introduced R = Reinforced** **E = Emphasized** **List course alpha and no.** ⇨	HS150	HS155	HS160	HS208	HS211	HS215	HS217	HS219	HS254	HS292a,b			
Guam Community College students will acquire the highest quality education and job training that promotes workforce development and empowers them to serve as dynamic leaders within the local and international community. Students will demonstrate:													
Use of acquired skills in effective communication, and quantitative analysis with proper application of technology.	**I**	**R**	**E**	**E**	**E**	**E**	**E**	**E**	**E**	**RE**			
Ability to access, assimilate and use information ethically and legally.	**I**	**IR**	**IR**	**R**	**R**	**R**	**R**	**R**	**R**	**RE**			
Mastery of critical thinking and problem-solving techniques.	**I**	**RE**	**RE**	**IRE**	**IRE**	**IRE**	**IRE**	**IRE**	**IRE**	**E**			
Collaborative skills that develop professionalism, integrity, respect, and fairness.	**I**	**R**	**RE**	**RE**	**RE**	**RE**	**RE**	**RE**	**RE**	**E**			
Civic responsibility that fosters respect and understanding of ethical, social, cultural, and environmental issues locally and globally.	**I**	**IR**	**IRE**	**IRE**	**IRE**	**IRE**	**IRE**	**IRE**	**IRE**	**RE**			

Program Level SLOs

HOTEL OPERATIONS & MANAGEMENT/A.S.													
I = Introduced R = Reinforced E = Emphasized **List course alpha and no.** ⇨	HS150	HS155	HS160	HS208	HS211	HS215	HS217	HS219	HS254	HS292a,b			
Student Learning Outcomes – Program Level Upon successful completion of this program, students will be able to:													
1. Apply the fundamentals of the requirements or the Hotel Operations and Management program and demonstrate competency in their choice of occupation within the industry.	**I**	**IRE**	**IRE**	**IRE**	**IRE**	**IRE**	**IRE**	**IRE**	**IRE**	**RE**			
2. Demonstrate knowledge, skills and attitudes by applying the system approach method to analyze, evaluate,solve, and complete the requirements set by their Practicum experience.	**I**	**IRE**	**IRE**	**IRE**	**IRE**	**IRE**	**IRE**	**IRE**	**IRE**	**RE**			

Course Level SLOs

HS150 Welcome to Hospitality *Upon successful completion of this course, students will be able to:*	**Related to Program Level SLO#**
1. Describe all facets and segments of tourism and hospitality industry.	1
2. Identify career opportunity in the tourism and hospitality industry.	1
3. Explain how tourism and hospitality segments work together to achieve objectives and goals.	1

HS155 Basic Hotel & Restaurant Accounting *Upon successful completion of this course, students will be able to:*	**Related to Program Level SLO#**
1. Define and describe bookkeeping and double entry accounting and identify common bookkeeping accounting tools.	1,2
2. Describe the income statement, identify the accounts used to prepare an income statement, define the revenue classification, and explain when a sale is recognized.	1
3. Describe the income statements and accounting procedures for full service and fast food restaurants in accordance with the uniform system of accounts for the lodging industry.	1,2
4. Discuss all budgeting and forecasting related competencies.	1,2

HS160 Hospitality Supervision *Upon successful completion of this course, students will be able to:*	**Related to Program Level SLO#**
1. Identify characteristics of a successful supervisor, and describe the general functions of a supervisor.	1,2
2. Identify and describe methods used to ensure high quality and productivity.	1,2
3. Describe workplace safety and health programs, including their benefits and the supervisor's role in them.	
4. Explain how supervisors can initiate conflict resolution, respond to a conflict, and mediate conflict resolution.	1,2
5. Propose feasible strategies to manage a hospitality department efficiently and effectively.	1,2

HS208 Food and Beverage Service *Upon successful completion of this course, students will be able to:*	**Related to Program Level SLO#**
1. Describe essential attitudes, knowledge and skills needed to become efficient and effective food and beverage employers, supervisors and managers.	1
2. Identify causes, assess potential solutions, and formulate a plan of action to address all negative moment of truth encountered by guests.	
3. Develop an appropriate sequence of service for various food and beverage establishments.	
4. Prepare a three day training program and outline training objectives for a fine dining restaurant.	
5. Demonstrate knowledge and skills in providing American, English, Russian, and French service in various food and beverage establishments.	
6. Evaluate if a food and beverage establishment's service procedure is properly implemented and managed.	

HS211 Front Office Management *Upon successful completion of this course, students will be able to:*	**Related to Program Level SLO#**
1. Describe and evaluate the effectiveness of various front officers.	1
2. Explain procedures, operations, and management of the front office to include human resource management.	1

HS215 Housekeeping Management *Upon successful completion of this course, students will be able to:*	**Related to Program Level SLO#**
1. Identify, describe and evaluate elements needed for effective housekeeping operations and management.	1
2. Explain the systematic approach to managing housekeeping operations.	

HS217 Hotel Security Management *Upon successful completion of this course, students will be able to:*	**Related to Program Level SLO#**
1. Explain the key issues in developing and setting up a security program.	1
2. Discuss techniques that promote hotel safety and security.	

HS219 Training & Development in the Hospitality Industry *Upon successful completion of this course, students will be able to:*	**Related to Program Level SLO#**
1. Identify and describe required techniques and knowledge to manage hospitality industry human resource efficiently and effectively.	1,2
2. Design and evaluate various training programs.	

HS254 Hospitality & Travel Marketing *Upon successful completion of this course, students will be able to:*	**Related to Program Level SLO#**
1. Explain the core principles of marketing and their application to the Hospitality and Travel components of the tourism industry.	
2. Conduct marketing research by developing a survey relevant to the chosen topic.	
3. Create and present a Marketing Plan of their choice.	

HS292 Hospitality Industry Management Practicum *Upon successful completion of this course, students will be able to:*	**Related to Program Level SLO#**
1. Demonstrate their knowledge, skills, and attitudes by analyzing, solving, evaluating and completing the requirements set by their Practicum experience.	
2. Demonstrate knowledge of the similarities and differences of domestic and international travel and its impact on the traveler.	
3. Plan and execute an itinerary to include necessary documentation to fit the needs of the travelers and their destination.	
4. Demonstrate the proper attitude and commitment to excellence in marketing, selling and customer service through the use of variety of technologies.	

Program Level SLOs

LIBERAL ARTS/A.S.													
I = Introduced R = Reinforced E = Emphasized **List course alpha and no.** ⇨	EN111	EN125	EN210	HI121	HI122	HL202	HU120	PI101	PS140	PY100	SI103	VC101	
Student Learning Outcomes – Program Level Upon successful completion of this program, students will be able to:													
1. Draw relationships between continuity and change in explaining human behavior and society.					**I**	**IR**		**IRE**	**R**	**IRE**	**IRE**		
2. Analyze the progress of one's self in life and study the impact it has had in relation to living in a democratic and global society.				**IR**	**IR**		**IR**	**R**	**E**	**E**	**I**		
3. Examine the relationships between past, present and future events in society.				**IRE**	**IRE**		**I**		**I**		**IE**		
4. Transfer to a four-year institution.	**R**	**R**		**I**	**I**		**I**	**IR**		**IR**			

Course Level SLOs

EN111 Writing for Research *Upon successful completion of this course, students will be able to:*	**Related to Program Level SLO#**
1. Generate a focused and mature thesis.	4
2. Engage in primary and secondary research	4
3. Report, analyze, argue, paraphrase and summarize.	3
4. Coherently synthesize information from multiple sources.	4
5. Evaluate sources intelligently and apply proper documentation.	4

EN125 Introduction to Speech *Upon successful completion of this course, students will be able to:*	**Related to Program Level SLO#**
1. Demonstrate listening and information gathering skills.	
2. Explain the differences in cultural communication patterns.	4
3. Apply oral communication skills through actual applications.	4
4. Develop and deliver speeches for a variety of purposes.	4

EN210 Introduction to Literature *Upon successful completion of this course, students will be able to:*	**Related to Program Level SLO#**
1. Analyze critically acclaimed poetry, fiction, and drama from diverse cultures.	1,2
2. Recognize and employ terminology for discussing literature.	
3. Demonstrate an understanding of drama through analysis and the performance of plays.	
4. Analyze film as literature.	
5. Identify different approaches to literary criticism.	4

HI121 History of World Civilization I *Upon successful completion of this course, students will be able to:*	**Related to Program Level SLO#**
1. Develop an understanding of the basic principles and theories involved with world civilizations.	1,2
2. Explain the development and evolution of ancient people and societies.	3
3. Develop an appreciation of world civilizations from pre-historic to 1500 A.D. from the Fertile Crescent to the medieval feudal states.	3

HI122 History of World Civilization II *Upon successful completion of this course, students will be able to:*	**Related to Program Level SLO#**
1. Develop an understanding of the basic principles and theories involved with world civilizations.	1-3
2. Apply principles and theories to major events related to world civilizations.	1-3
3. Develop an appreciation of world civilizations from the 1500's to modern day period.	1-3

HL202 Nutrition *Upon successful completion of this course, students will be able to:*	**Related to Program Level SLO#**
1. Identify and recognize the major food groups and importance of each group.	
2. Recognize factors in formulating good sources of nutrients.	
3. Demonstrate the correlation among health, nutrition, and food safety.	
4. Identify and recognize the Food and Drug Administration (FDA) guidelines for food and nutrition..	
5. Illustrate the impact of health and exercise in human body and lifestyle.	1
6. Design and tailor different diets to suit needs, requirements and diagnosis.	1

HU120 Pacific Cultures *Upon successful completion of this course, students will be able to:*	**Related to Program Level SLO#**
1. Demonstrate basic understanding of the culture, economy, and politics of the Pacific territories and emerging nations.	1-3
2. Discuss the cross cultural issues of Micronesians from various islands living on Guam.	1,2
3. Compare and contrast various Pacific island cultures.	1-3

PI101 Introduction to Philosophy *Upon successful completion of this course, students will be able to:*	**Related to Program Level SLO#**
1. Demonstrate knowledge of philosophical views.	
2. Demonstrate a commitment to ethical behavior.	1-4
3. Foster respect for diversity.	1-4

PS140 American Government *Upon successful completion of this course, students will be able to:*	**Related to Program Level SLO#**
1. Demonstrate an understanding of the basic framework and concepts which define the American system/style of democracy.	2
2. Explain the historical roots of American government and the events which have affected the development and course of American government.	2,3
3. Explain the three branches of government, their basic structure and functions, and how they are expected to change and interrelate with each other.	1-3
4. Develop an awareness of the factors and circumstances which may impact the direction and changes to the American system of government.	1-3
5. Demonstrate an understanding of Guam's system of government.	3,4

PY100 Personal Adjustment *Upon successful completion of this course, students will be able to:*	**Related to Program Level SLO#**
1. Explain and evaluate the importance of personal adjustment and the benefits of self-awareness.	1,2
2. Evaluate emotions and the significance of their emotions on self-development.	1,2
3. Identify and demonstrate the skills necessary for healthy communication and relationships.	4
4. Demonstrate and understand the impact of societal expectations on human behavior.	1
5. Recognize and evaluate the factors affecting individual choices and their effects on one's self and adjustment within society.	1,2

SI103 Introduction to Marine Biology *Upon successful completion of this course, students will be able to:*	**Related to Program Level SLO#**
1. Describe key chemical, biological, geological, and ecological processes.	2
2. Identify and classify common marine organisms.	1-3
3. Explain anthropogenic factors that affect the marine environment and organisms therein.	4

SI105 Introduction to Physical Geology *Upon successful completion of this course, students will be able to:*	**Related to Program Level SLO#**
1. Explain how geologic processes shape the earth.	
2. Identify basic rock and mineral samples.	
3. Explain how geologic processes affect human activities and social economic welfare.	

SI105L Introduction to Physical Geology *Upon successful completion of this course, students will be able to:*	**Related to Program Level SLO#**
1. Explain how geologic processes shape the earth.	
2. Identify basic rock and mineral samples.	
3. Explain how geologic processes affect human activities and social economic welfare.	

TH101 Introduction to the Theater *Upon successful completion of this course, students will be able to:*	**Related to Program Level SLO#**
1. Demonstrate an appreciation for theater as a fine art.	
2. Demonstrate a clear understanding of theater history.	
3. Demonstrate knowledge of production practices.	

EC110 Principles of Economics *Upon successful completion of this course, students will be able to:*	**Related to Program Level SLO#**
1. Discuss with understanding the basic principles and theories of economics.	
2. Apply economic principles and theories to decisions societies make (Micro)	
3. Demonstrate understanding of the relationships between various global markets and the impact those relationships have on the entire world economy (Macro).	

Program Level SLOs

MARKETING/A.S.													
I = Introduced R = Reinforced E = Emphasized **List course alpha and no.** ⇨	MK123	MK124	MK205	MK206	MK207	MK208	MK224						
Student Learning Outcomes – Program Level Upon successful completion of this program, students will be able to:													
1. Obtain career-sustaining employment in a marketing profession.	**I**	**R**	**E**	**R**	**R**	**R**	**E**						
2. Be successful in a marketing career that is increasingly reliant upon the use of technology in the performance of marketing functions.	**I**	**R**	**R**	**R**	**R**	**R**	**R**						
3. Broaden their academic background and improve their opportunities for advancement in the workplace through up-to-date technical instruction in marketing.	**I**	**R**	**R**	**R**	**E**	**R**	**R**						

Course Level SLOs

MK123 Principles of Marketing *Upon successful completion of this course, students will be able to:*	**Related to Program Level SLO#**
1. Integrate the latest technology effectively in business and marketing communications.	
2. Identify desirable personality traits important to business.	
3. Demonstrate an understanding of the functions and foundations of marketing.	

MK124 Selling *Upon successful completion of this course, students will be able to:*	**Related to Program Level SLO#**
1. Prepare and execute both a consumer oriented and a business-to-business oriented sales presentation.	
2. Demonstrate an understanding of the importance and techniques of relationship marketing.	
3. Exhibit ethical behavior in selling.	
4. Describe sales management structures.	

MK205 Entrepreneurship *Upon successful completion of this course, students will be able to:*	**Related to Program Level SLO#**
1. Understand the characteristics and skills of a successful entrepreneur.	1
2. Calculate the risks and rewards of an entrepreneurial venture.	1,2,3
3. Understand the advantages and disadvantages of a startup, a buyout, and a franchise arrangement.	1
4. Determine the factors necessary to gain a competitive advantage.	1
5. Develop a Business Plan.	1,3
6. Understand the legal organization of a small business.	1

MK206 Retailing *Upon successful completion of this course, students will be able to:*	**Related to Program Level SLO#**
1. List the major aspects of a retail career and the prerequisites for success in retailing.	1
2. Explain the importance of retail customers to the retail manager.	1
3. Discuss how the legal and ethical environment affects the retailer in making decisions.	1
4. Explain how retailers select and reach their target market through the location decision.	1,2,3
5. Explain a retailer's merchandise buying and handling.	1,2,3
6. Discuss the role of advertising and promotion in the operation of a retail business.	1

MK207 E-Marketing *Upon successful completion of this course, students will be able to:*	**Related to Program Level SLO#**
1. Explain the basic models for engaging in commerce on the Internet.	1,2,3
2. Explain how information technology can create a competitive advantage.	1,2,3
3. Develop product strategies for global competition.	1
4. Learn techniques for relationship marketing and customer services on the Internet.	1,2
5. Understand why interactivity is a fundamental and vital aspect of an Internet retail strategy.	1,2,3
6. Explain how international channels of distribution have become key factors in determining competitive advantage.	1

MK208 International Marketing *Upon successful completion of this course, students will be able to:*	**Related to Program Level SLO#**
1. Gain a truly global perspective rather than just from the U.S. point of view by addressing, confronting, and analyzing the existence of different environments, expectations, and market conditions.	1,2,3
2. Describe export and import operations.	1
3. Explain how businesses work with governments and what role governmental considerations can play for the international marketer.	1
4. Develop marketing and management strategies for international companies.	1,3
5. Understand that there are different political and legal environments in which international companies must operate.	1

MK224 Advertising *Upon successful completion of this course, students will be able to:*	**Related to Program Level SLO#**
1. Develop a comprehensive and effective Advertising Plan.	1,2,3
2. Think an plan strategically; gather and analyze research data; compute and evaluate the potential of alternate courses of action; cooperate with a team in developing creative solutions to a problem; analyze competitive proposals; understand why people behave the way they do; express themselves and their ideas with clarity; persuade others to their point of view; speak with knowledge, confidence and conviction.	1,2,3
3. Appreciate the effect of marketing and advertising on business, industry, and national economics.	1,3
4. Comprehend the strategic function of advertising within the broader context of business and marketing.	1,3
5. Discover what people in advertising do, how they do it, and the career opportunities these fields offer.	1,3

Program Level SLOs

MEDICAL ASSISTING/CERTIFICATE & A.S.													
I = Introduced R = Reinforced E = Emphasized **List course alpha and no.** ⇨	MS101	MS120	MS121	MS125	MS140	MS141	MS145	MS201	MS210	MS220	MS221	MS225	MS292
Student Learning Outcomes – Program Level Upon successful completion of this program, students will be able to:													
1. Meet national standards for medical assistants according to The American Association of Medical Assistants (AAMA).	**I**	**I**	**R**	**E**	**I**	**R**	**E**	**E**	**R**	**I**	**R**	**E**	**E**
2. Demonstrate knowledge of basic medical assistant procedures in a laborartory and clinical setting.	**I**	**I**	**R**	**E**	**I**	**R**	**E**	**E**	**R**	**I**	**R**	**E**	**E**
3. Demonstrate use of interpersonal and communication skills as it relates to the field of allied health.	**I**	**I**	**R**	**E**	**I**	**R**	**E**	**E**	**R**	**I**	**R**	**E**	**E**
4. Demonstrate office procedures as performed by a Medical Assistant in an office setting.	**I**	**I**	**R**	**E**	**I**	**R**	**E**	**E**	**R**	**I**	**R**	**E**	**E**

Course Level SLOs

MS101 Introduction to Medical Assisting *Upon successful completion of this course, students will be able to:*	**Related to Program Level SLO#**
1. Demonstrate basic knowledge of administration and clinical skills.	1
2. Discuss ethical legal considerations and theoretical concepts regarding patient care.	2

MS120 Clinical Medical Assisting I *Upon successful completion of this course, students will be able to:*	**Related to Program Level SLO#**
1. Demonstrate knowledge of basic medical assistant procedures in a lab and clinical setting.	1
2. Demonstrate ability to assist with facilitating patient flow through the clinic and/or physicians office.	3

MS121 Clinical Medical Assisting II *Upon successful completion of this course, students will be able to:*	**Related to Program Level SLO#**
1. Demonstrate the ability to function effectively as allied health team members in the delivery of quality patient care at entry level proficiency.	1
2. Demonstrate the ability to apply routine patient care/diagnostic procedures in assessing health care.	1
3. Demonstrate the ability to practice applying routine patient care/diagnostic procedures.	1

MS125 Clinical Office Experience *Upon successful completion of this course, students will be able to:*	**Related to Program Level SLO#**
1. Demonstrate in an office or clinical setting knowledge of basic medical assistant procedures.	1
2. Demonstrate use of interpersonal and communication skills in the clinical setting.	2

MS140 Administrative Medical Assisting *Upon successful completion of this course, students will be able to:*	**Related to Program Level SLO#**
1. Demonstrate office procedures as performed by a Medical Assistant in an office setting.	3
2. Demonstrate knowledge of theoretical concepts and principles of medical office practice.	3

MS141 Administrative Medical Assisting Laboratory *Upon successful completion of this course, students will be able to:*	**Related to Program Level SLO#**
1. Demonstrate administrative office procedures in a lab setting.	3
2. Demonstrate use of professional oral communication techniques in the medical office or clinical setting.	2
3. Demonstrate use of professional written communication techniques in the medical office or clinical setting.	2

MS145 Administrative Medical Assisting Clinical *Upon successful completion of this course, students will be able to:*	**Related to Program Level SLO#**
1. Demonstrate administrative office procedures in a clinical setting.	3
2. Discuss with supervisor/instructor procedures used in clinical settings.	3

MS201 Medical Law and Ethics *Upon successful completion of this course, students will be able to:*	**Related to Program Level SLO#**
1. Identify legal and ethical responsibilities in patient care and management.	2
2. Display knowledge of the medical ethics in performance of duties.	2

MS210 Medical Assisting Critique *Upon successful completion of this course, students will be able to:*	**Related to Program Level SLO#**
1. Analyze, synthesize, and evaluate patient care management.	1
2. Review and prepare for examination as certified Medical Assistants.	1

MS220 Medical Assisting Specialties *Upon successful completion of this course, students will be able to:*	**Related to Program Level SLO#**
1. Assist the physician in the appraisal of the patient's health status.	1
2. Demonstrate the ability to use advanced Medical Assisting techniques and procedures.	1

MS221 Medical Assisting Specialties Lab *Upon successful completion of this course, students will be able to:*	**Related to Program Level SLO#**
1. Demonstrate the ability to practice advanced medical techniques in a lab setting.	1
2. Demonstrate the ability to act as liaison between the patient and physician.	2

MS225 Medical Assisting Specialties Clinical *Upon successful completion of this course, students will be able to:*	**Related to Program Level SLO#**
1. Demonstrate the ability to use advance Medical Assistant knowledge and techniques in an ambulatory setting	1
2. Demonstrate the ability to use advanced Medical Assisting techniques and procedures.	1

MS292 Medical Assisting Practicum *Upon successful completion of this course, students will be able to:*	**Related to Program Level SLO#**
1. Demonstrate professional characteristic expectant of a beginning practicing Medical Assistant.	3
2. Demonstrate ambulatory patient care concept and principles with entry level proficiency in the administrative area.	
3. Demonstrate ambulatory patient care concepts and principles with entry level proficiency in the clinical area.	1

Program Level SLOs

OFFICE TECHNOLOGY/CERTIFICATE & A.S.													
***both Cert/AS, **elective for AS only I = Introduced R = Reinforced E = Emphasized List course alpha and no. ⇨	OA101*	OA103*	OA109	OA130*	OA210*	OA211	OA220*	OA230*	OA240	OA250*	OA298**		
Student Learning Outcomes – Program Level Upon successful completion of this program, students will be able to:													
1. **CERTIFICATE:** Obtain knowledge and skills in various computer applications to adapt to the technological needs of respective organizations.	**I**	**IR**	**IR**	**IR**	**IR**		**IR**	**IRE**		**IRE**			
2. **CERTIFICATE**: Use previously learned skills and information to format and produce various office documents.	**I**	**IR**	**IR**	**IR**	**IR**		**IR**	**RE**		**RE**			
3. **CERTIFICATE:** Express confidence in their ability to use and integrate several office applications**.**	**I**	**IR**	**IR**	**IR**	**IR**		**IR**	**RE**		**RE**			
1. **AS:** Obtain knowledge and skills in various computer applications to adapt to the technological needs of their respective organizations.	**I**	**IR**	**IR**	**R**	**IR**	**IR**	**IR**	**RE**	**RE**	**RE**	**E**		
2. **AS**: Use previously learned skills and information to format and produce various office documents.						**R**			**R**	**R**	**E**		
3. **AS:** Express confidence in their ability to use and integrate several office applications**.**									**E**	**E**	**E**		

Course Level SLOs

****Because the Associate's Program Level SLO was changed, the "A's" in the Related to Program Level SLO# have also changed**

OA101 Keyboard Applications *Upon successful completion of this course, students will be able to:*	**Related to Program Level SLO#**
1. Demonstrate the ability to key memorandums, letters, reports, tables, and other related items in an acceptable manner.	C1/A1
2. Demonstrate good work habits, acceptable, typing techniques and skill in using the microcomputer and printer.	C2/A1
3. Demonstrate keyboard knowledge by completing a 3-minute timed-writing keying at least 40 words per minute with no more than 5 errors.	C1/A1

OA103 Filing Systems *Upon successful completion of this course, students will be able to:*	**Related to Program Level SLO#**
1. Index, code, cross-reference, and arrange personal names, business names, and organization names in correct filing order.	C2/A1
2. Store and retrieve records using alphabetic, subject, numeric, and/or geographic methods of filing.	C2/A1
3. Create, maintain, and access a computerized records management database.	C1/A1
4. Demonstrate the procedures for records control and retention, including charge-out systems, electronic files control, and transfer methods.	C3/A1

OA109 Business Math using Excel *Upon successful completion of this course, students will be able to:*	**Related to Program Level SLO#**
1. Prepare bank statement reconciliations.	C2/A1
2. Calculate the components of payroll.	C2/A1
3. Solve simple interest and compound interest problems.	C2/A1
4. Use Excel to solve business problems.	C1/A1

OA130 Information Processing *Upon successful completion of this course, students will be able to:*	**Related to Program Level SLO#**
1. Demonstrate proper techniques for keying correspondence, including letters, memorandums, reports, tables, and forms.	C1/A1
2. Apply skills in completing projects.	C2/A1
3. Demonstrate proper work attitudes for business.	C3/A1
4. Demonstrate keyboarding knowledge by completing a 5-minute timed-writing keying at least 50 words a minute with no more than 5 errors.	C3/A1

OA210 Database Management Systems *Upon successful completion of this course, students will be able to:*	**Related to Program Level SLO#**
1. Design, create, and modify a database.	C1/A1
2. Design, generate, and modify queries, forms, and/or reports for the input and/or extraction of data.	C2/A1
3. Integrate with other office applications, and collaborate and secure data.	C3/A1

OA211 Business Communication *Upon successful completion of this course, students will be able to:*	**Related to Program Level SLO#**
1. Write effective business memos, letters, and reports.	A1
2. Prepare and deliver effective oral presentations.	A1
3. Demonstrate effective interpersonal communication skills.	A1
4. Communicate orally in one-on-one, small group and large group situations.	A1
5. Develop a practical job search strategy, including writing successful resumes.	A2

OA220 Spreadsheet Systems *Upon successful completion of this course, students will be able to:*	**Related to Program Level SLO#**
1. Create, save, retrieve, edit, format, and print an electronic worksheet using formulas, built-in functions, and charts.	C1/A1
2. Create and manipulate electronic spreadsheets, databases, templates, and macros.	C2/A1
3. Integrate spreadsheets with other office applications and secure the data.	C3/A1

OA230 Advanced Information Processing *Upon successful completion of this course, students will be able to:*	**Related to Program Level SLO#**
1. Create compound documents by integrating word processing, spreadsheet, database, and/or presentation applications.	C3/A1
2. Apply proper documents formats when keying business correspondence-memorandums, letters, reports, tables, and forms.	C/A1
3. Create and manage documents using teamwork.	C2/A1
4. Demonstrate keyboarding knowledge by completing a 5-minute timed-writing keying at least 60 words a minute with no more than 5 errors.	C3/A1

OA240 Machine Transcription *Upon successful completion of this course, students will be able to:*	**Related to Program Level SLO#**
1. Develop the ability to think and use judgment while keying correspondence.	A1
2. Apply correct spelling, grammar usage, and style to documents.	
3. Examine and use appropriate reference materials.	

OA250 Office Procedures *Upon successful completion of this course, students will be able to:*	**Related to Program Level SLO#**
1. Demonstrate professional image, appropriate job attitudes, and interpersonal relationships of the administrative assistant.	
2. Work independently and as a member of an internal team.	
3. Displays skills in obtaining, organizing, evaluating, and managing information.	

OA298 CO-OP/Work Learn *Upon successful completion of this course, students will be able to:*	**Related to Program Level SLO#**
1. Develop administrative skills in a workplace environment.	A1
2. Demonstrate competence using business office technology, electronic communication skills, software applications, time management and organizational skills.	A1
3. Demonstrate professionalism and ethical conduct in the work environment.	
4. Demonstrate effective human relations skills with co-workers and respect others' differences in culture, race, and ethnicity.	A1

Institutional Learning Outcomes (ILOs)

Name of Program CADD and Pre-Architectural Engineering **Certificate AND Associate** **I = Introduced R = Reinforced** **E = Emphasized** **List course alpha and no.** ⇨	AE103	AE121	AE122	AE138	AE150	AE160	AE216						
Guam Community College students will acquire the highest quality education and job training that promotes workforce development and empowers them to serve as dynamic leaders within the local and international community. Students will demonstrate:													
Use of acquired skills in effective communication, and quantitative analysis with proper application of technology.	**I**	**I**	**R**	**I**	**R**	**E**	**E**						
Ability to access, assimilate and use information ethically and legally.	**I**		**I**	**E**	**R**		**E**						
Mastery of critical thinking and problem-solving techniques.		**I**	**R**	**E**	**R**	**E**	**E**						
Collaborative skills that develop professionalism, integrity, respect, and fairness.		**E**	**E**	**E**	**RE**	**E**	**E**						
Civic responsibility that fosters respect and understanding of ethical, social, cultural, and environmental issues locally and globally.				**I**	**I**	**I**	**IR**						

Program Level SLOs

COMPUTER AIDED DESIGN & DRAFTING/CERTIFICATE & PRE-ARCHITECTURAL DRAFTING/A.S.													
The yellow highlights are for A.S. only **I = Introduced R = Reinforced** **E = Emphasized** **List course alpha and no.** ⇨	AE103	AE121	AE122	AE138	AE150	AE160	AE216						
Student Learning Outcomes – Program Level Upon successful completion of this program, students will be able to:													
1. Demonstrate knowledge and skills needed to design and draft projects ranging from two to three dimensional designs for commercial and residential buildings.	**I**	**I**	**I**	**I**	**R**	**R**	**R**						
2. Demonstrate basic skills needed to view, print, edit, and creae variations of two and three dimensional electronic designs.				**I**	**I**	**R**	**E**						
3. Develop a professional work ethic needed in the architectural engineering industry.		**I**	**I**		**R**	**RE**							
4. Create an electronic portfolio that represents proficiency in the development of two and three dimensional computer aided designs. (AS ONLY).		**I**	**I**		**I**	**R**	**E**						

Course Level SLOs

AE121 Technical Engineering Drawing I *Upon successful completion of this course, students will be able to:*	**Related to Program Level SLO#**
1. Demonstrate proper use of drafting instruments to draw existing plans.	1
2. Accurately measure existing drawings.	1
3. Describe basic components of a blueprint.	1

AE122 Technical Engineering Drawing II *Upon successful completion of this course, students will be able to:*	**Related to Program Level SLO#**
1. Prepare a partial working drawing.	1
2. Accurately depict different elevation views.	1
3. Draw plumbing components found in a typical house plan.	1

AE138 Building Codes, Specifications & Construction Management *Upon successful completion of this course, students will be able to:*	**Related to Program Level SLO#**
1. Explain local and national building codes and standards.	1,3
2. Identify the process for acquiring a building permit.	1,3
3. Explain the various agencies functions in the permitting process.	1,3

AE103 Basic Blueprint Reading *Upon successful completion of this course, students will be able to:*	**Related to Program Level SLO#**
1. Identify basic specifications and codes of various trades related industries.	1
2. Recognize and sketch basic lines.	1
3. Apply symbols, notes, and conventions to the creation of drawings and sketches.	1

AE150 CADD I *Upon successful completion of this course, students will be able to:*	**Related to Program Level SLO#**
1. Produce line drawings using computer technology.	2,4
2. Demonstrate and explain basic equipment components and terminology used in the Computer Aided Design & Drafting (CADD) career.	2,4
3. Demonstrate basic proficiency using design software.	2,4

AE160 CADD II *Upon successful completion of this course, students will be able to:*	**Related to Program Level SLO#**
1. Utilize a computer workstation to create a construction drawing set consisting of at least six sheets from a design.	2,4
2. Compile information about a building from architectural and engineering reference materials and produce an appropriate document that compiles with building codes and save it in an electronic medium.	2,4
3. Demonstrate intermediate two and three dimensional editing techniques.	2,4
4. Demonstrate how to prepare two and three dimensional drawings for architecture, interior design, mechanical and structural engineering, and other design fields.	

AE216 Descriptive Geometry *Upon successful completion of this course, students will be able to:*	**Related to Program Level SLO#**
1. Apply graphical methods to solve three-dimensional space problems.	1,2,4
2. Set up projection planes to satisfy specific requirements.	2,4
3. Use computer drafting software such as AutoCad® to create a three-dimensional objet with integration of three dimensional shapes and save to an electronic medium.	

Program Level SLOs

SUPERVISION & MANAGEMENT/CERTIFICATE & A.S.													
I = Introduced R = Reinforced E = Emphasized **List course alpha and no.** ⇨	SM108	SM205	SM208	SM211	SM215	SM220	SM225	SM230	SM240	SM245			
Student Learning Outcomes – Program Level Upon successful completion of this program, students will be able to:													
1. Apply supervision and management theory and princples to business procedures and practices either in the public or private sector.	**I**	**IR**	**IRE**	**R**	**IRE**	**IRE**	**IRE**	**E**	**E**	**E**			
2. Qualify for employment in a variety of management related positions, such as personnel supervisors, managers, administrators, and government officials among others.	**I**	**RE**	**RE**	**R**	**RE**	**RE**	**RE**	**RE**	**RE**	**RE**			
3. Upgrade their knowledge and job skills in supervision and management within the Guam community and Pacific region.	**I**	**RE**	**RE**	**RE**	**RE**	**IRE**	**IRE**	**R**	**R**	**R**			

Course Level SLOs

SM108 Introduction to Business *Upon successful completion of this course, students will be able to:*	**Related to Program Level SLO#**
1. Evaluate the private enterprise system and determine the roles of business, competitors, and entrepreneurs operating within the system.	1,2,3
2. Construct the stages in the development of management ethical standards.	1,2
3. Summarize in writing their feelings about applied business concepts.	1,2

SM205 Purchasing *Upon successful completion of this course, students will be able to:*	**Related to Program Level SLO#**
1. Understand the impact of purchasing and supply chain management on the competitive success and profitability of modern organizations.	
2. Gain an appreciation of the ethical, contractual, and legal issues faced by purchasing and supply chain professionals.	
3. Demonstrate an understanding of the purchasing cycle, various types of purchasing documents, and types of purchases.	

SM230 Business Law Applications *Upon successful completion of this course, students will be able to:*	**Related to Program Level SLO#**
1. Discuss the law of contracts as it relates to offers/acceptances, consideration, and competency.	1,2,3
2. Identify the key elements of intentional, negligence, and strict liability torts.	1,2,3
3. Summarize in writing ideas and feelings about applied business law concepts.	1,2,3
4. Demonstrate how to prepare two and three dimensional drawings for architecture, interior design, mechanical and structural engineering, and other design fields.	

SM240 Employment & Labor Law *Upon successful completion of this course, students will be able to:*	**Related to Program Level SLO#**
1. Discuss the history of American labor unions and its impact on the enactment of federal labor laws.	
2. Explain how Title VII of the Civil Rights Act protects covered employees prohibiting any discrimination based on race, color, religion, sex or national origin.	1,2,3
3. Summarize in writing ideas and feelings about applied labor and employment law concepts.	

SM208 Personnel Supervision *Upon successful completion of this course, students will be able to:*	**Related to Program Level SLO#**
1. Demonstrate knowledge and skills in the area of personnel supervision.	1,2,3
2. Identify employee needs and apply motivational skills to address them.	1,2,3
3. Summarize in writing ideas and feelings about applied supervision concepts.	

SM211 E-Commerce *Upon successful completion of this course, students will be able to:*	**Related to Program Level SLO#**
1. Assess "customer needs" business websites.	1,2,3
2. Differentiate four Internet business models-Business-to-Business (B2B), Business-to-Consumer (B2C), Consumer-to-Consumer (C2C), and Consumer-to-Business (C2B).	2,3
3. Summarize in writing ideas and feelings about applied e-commerce management concepts.	

SM215 International Management *Upon successful completion of this course, students will be able to:*	**Related to Program Level SLO#**
1. Develop strategies for sustaining international business competition in a global setting.	
2. Discuss cross-cultural business ethics and corporate social responsibility in subsidiary assignments.	2,3
3. Summarize in writing ideas and feelings about applied international management concepts.	1,2,3

SM220 Management Skill Development *Upon successful completion of this course, students will be able to:*	**Related to Program Level SLO#**
1. Examine and interpret the traditional four functions of management; planning, organizing, leading, and controlling.	2,3
2. Construct and apply the eight-steps used in structured decision making process.	1,2,3
3. Summarize in writing ideas and feelings about applied management concepts.	1,2,3

SM245 Ethics & Stakeholder Management *Upon successful completion of this course, students will be able to:*	**Related to Program Level SLO#**
1. Describe and explain actions or strategies that management may take to improve a firm's ethical climate.	1
2. Describe ethical standards in management and identify its role in contemporary business practices.	1,2,3
3. Summarize in writing ideas and feelings about applied ethics and stakeholder concepts.	1,2,3

SM225 Leadership *Upon successful completion of this course, students will be able to:*	**Related to Program Level SLO#**
1. Describe via reflective narratives their experiential learning in Service Learning.	1,2,3
2. Differentiate the four major stages of group development and the appropriate leadership style required at each stage.	
3. Summarize in writing ideas and feelings about applied leadership concepts.	2,3

SM298 Co-Op/work-Learn for Supervision & Management *Upon successful completion of this course, students will be able to:*	**Related to Program Level SLO#**
1. Obtain supervised work experience to develop skills necessary to succeed in supervision/management positions.	1
2. Develop and reinforce the knowledge of supervisory theory and management principles as applied to the challenges of a business position.	
3. Train subordinates in supervision/management theory and practices.	
4. Apply the practice of professional business ethics related to the moral and social responsibilities of a supervisory/management position.	
5. Demonstrate effective human relations skills with co-workers and subordinates according to the expectations of a business supervisor/manager.	
6. Demonstrate planning, organizing, directing, and controlling skills needed for success supervising/managing within a business environment.	

Program Level SLOs

SURVEYING TECHNOLOGY/CERTIFICATE & A.S.													
Courses with an asterisk are for A.S. only. **I = Introduced R = Reinforced E = Emphasized** **List course alpha and no.** ⇨	AE150	SU100	SU101	CE211	CE222	SU230	SU250	SU292	SU240*	SU241*	SU251*	SU280*	
Student Learning Outcomes – Program Level Upon successful completion of this program, students will be able to:													
1. CERTIFICATE: Demonstrate preparedness to enter productive technical positions in the geospatial fields of surveying, mapping, and Geographic Information Systems.	**I**	**I**	**R**										
2. CERTIFICATE: Successfully pass the American Society on Surveying and Mapping National Society of Professional Surveyors (ACSM-NSPS) Level 1 Certified Survey Technician examination.				**E**	**R**	**I**							
3. CERTIFICATE: Develop a professional work ethic needed in the surveying industry.							**R**	**E**	**I**				
1. ASSOCIATE: Demonstrate preparedness for entry into mid-level technical postitions in the geospatial fields of surveying, mapping, and Geographic Information Systems (GIS).								**E**	**I**	**R**			
2. ASSOCIATE: Successfully pass the American Society on Surveying and Mapping National Society of Professional Surveyors (ACSM-NSPS) Level 3 Certified Survey Technician examination and pursue licensure as a Professional Land Surveyor through experience working under a Professional Land Surveyor.								**E**	**I**	**R**			
3. ASSOCIATE: Develop a professional work ethic needed in the surveying industry.								**IRE**					
4. ASSOCIATE: Demonstrate ability to utilize modern measurement technologies to acquire spatial data and employ industry-standard software to solve technical problems.								**IRE**					

Course Level SLOs

AE150 CADD I *Upon successful completion of this course, students will be able to:*	**Related to Program Level SLO#**
1. Produce line drawings using computer technology.	1,2
2. Demonstrate and explain basic equipment components and terminology used in the Computer Aided Design & Drafting (CADD) career.	1,2
3. Demonstrate basic proficiency using design software.	1

SU100 Surveying Drafting *Upon successful completion of this course, students will be able to:*	**Related to Program Level SLO#**
1. Discuss the roles of office draft persons or survey party chiefs.	1,2
2. Define common terminology in the surveying drafting career.	2
3. Explain the diverse engineering fieldwork and methods of graphic resolution used.	1,2

SU101 Surveying Problems I *Upon successful completion of this course, students will be able to:*	**Related to Program Level SLO#**
1. Demonstrate an understanding of basic mathematics needed for survey computations.	1,2
2. Apply basic arithmetic, trigonometry and geometric operations to given surveying problems.	1,2
3. Discuss and identify solutions to various surveying problems encountered in the work setting.	1,2,3

CE211 Plane Surveying I *Upon successful completion of this course, students will be able to:*	**Related to Program Level SLO#**
1. Describe the fundamentals of chaining, leveling, and use of transit as it relates to plane surveying.	1,2
2. Properly care, adjust, and use equipment in the plane surveying field.	1,2
3. Given a set of tasks, demonstrate proper use and application of surveying equipment and tools.	1,2

SU230 Advanced Surveying *Upon successful completion of this course, students will be able to:*	**Related to Program Level SLO#**
1. Demonstrate proficiency in the mathematical computation of horizontal and vertical surveys including the process of laying out horizontal and vertical curves.	1,2
2. Apply proper survey processes in construction surveys and layouts.	1,2
3. Demonstrate an understanding of boundary surveying and the legal aspects of property surveying.	1,2
4. Analyze boundary and property survey problems using applicable survey methods.	1,2
5. Demonstrate understanding of concepts of geodetic and GPS surveying.	1,2,4

SU250 Intro to Geographic Information Systems *Upon successful completion of this course, students will be able to:*	**Related to Program Level SLO#**
1. Describe the fundamental concepts of GIS and the major functionally contained within the ArcGIS software.	1,2,3
2. Explain the GIS analytical process and be proficient with a variety of ArcGIS tools to solve realistic problems.	1,2,4
3. Demonstrate understanding of the basics of the geodatabase and the more advanced functionality that makes the geodatabase such a powerful data model.	1,2
4. Design presentation-quality maps and create a person geodatabse.	1,2,4

SU292 Surveying Practicum *Upon successful completion of this course, students will be able to:*	**Related to Program Level SLO#**
1. Demonstrate proficiency in the operation of typical survey instruments including electronic total stations, levels, and data collectors.	1,2,3
2. Apply proper field operation in traversing, leveling, and topographic surveying.	1,2,3
3. Demonstrate proficiency in the preparation of survey drawings using computer aided surveying software.	1,3
4. Transfer data to and from survey instruments, data collectors, and computers.	1,3
5. Demonstrate an understanding of errors and error propagation field work.	1,2,3

SU240 Boundary Law I *Upon successful completion of this course, students will be able to:*	**Related to Program Level SLO#**
1. Demonstrate an understanding of boundary control and legal principles to include identification of error in legal descriptions.	1,2
2. Discuss legal principles such as deed/first/survey first, common and case law.	3
3. Define the basic elements of a boundary survey and the proper sequence of events/actions.	3
4. Evaluate boundary evidence and make decisions based on this ranking.	1,2,4
5. Identify controlling corners and boundaries.	1,2,4

SU241 Boundary Law II *Upon successful completion of this course, students will be able to:*	**Related to Program Level SLO#**
1. Explain in detail the subjects of evidence and procedures used for determining real property boundaries.	1,2
2. Demonstrate proficiency of reading legal instruments prepared by land surveyors.	1,2
3. Describe the surveyor's role in court cases.	1,2,3
4. Write a legal and technical description and prepare a surveyor's report.	1,2

SU251 Advanced Geographic Information Systems *Upon successful completion of this course, students will be able to:*	**Related to Program Level SLO#**
1. Produce and control raster data using ArcGIS Spatial Analyst.	1,2,4
2. Work within the new ArcGIS geoprocessing environment to create, execute, and automate spatial analysis work flows.	
3. Analyze three-dimensional modeling using ArcGIS 3D Analyst software.	
4. Create realistic models by draping aerial photographs over surfaces and displaying two-dimensional features in three dimensions.	

SU280 Special Topics in Geographic Information Systems *Upon successful completion of this course, students will be able to:*	**Related to Program Level SLO#**
1. Produce and manipulate cadastral data and create parcel data using the Survey Analyst Extension and the Cadastral Editor tools in the ArcGIS software.	1,2
2. Apply Survey analyst GIS tools on cadastral datasets and perform analysis of these datasets to ensure survey accuracy.	1,2
3. Use ArcGIS tools to address real-world social, economic, and environmental planning problems.	1,2,3,4

CE222 Plane Surveying II *Upon successful completion of this course, students will be able to:*	**Related to Program Level SLO#**
1. Demonstrate a variety of surveying techniques.	1,2
2. Apply appropriate skills using proper surveying instruments given various tasks.	1,2,4
3. Discuss reconnaissance, preliminary, and construction surveys.	1,2,4

Program Level SLOs

TOURISM & TRAVEL MANAGEMENT/A.S.								
I = Introduced R = Reinforced E = Emphasized **List course alpha and no.** ⇨	HS153	HS158	HS251A	HS251B	HS257	HS260	HS265	HS295a,b
Student Learning Outcomes – Program Level Upon successful completion of this program, students will be able to:								
1. Demonstrate competency in the skills needed to work as a professional in the tourism and travel industry.	I	I	IR	IR	IR	IR	IR	E
2. Demonstrate preparedness to successfully pass one of several local and/or nationally recognized tourism and travel tests.	I	I	I		IRE	R	R	E
3. Apply an appropriate work ethic and professional demeanor as it relates to the tourism and travel industry.	I	I	IR	IR	IRE	RE	R	E

Course Level SLOs

HS153 Destinations Geography *Upon successful completion of this course, students will be able to:*	**Related to Program Level SLO#**
1. Demonstrate knowledge in geographical terminology, landforms, weather, countries, and destinations, as it relates to the tourism industry with the use of industry accepted methods.	1,2
2. Demonstrate knowledge in researching, planning, and selling a destination by creating a travel itinerary with the required components.	1
3. Create and present a destination with a wide range of knowledge spotlighting the travel and tour activities found at that location	1

HS158 Intro to MICE *Upon successful completion of this course, students will be able to:*	**Related to Program Level SLO#**
1. Demonstrate knowledge of how to plan a meeting, incentive, convention, or exhibition.	1
2. Demonstrate basic skills and knowledge in the successful planning of a MICE.	1
3. Explain career opportunities within the MICE industry.	1

HS251A Ticketing and Travel Documents *Upon successful completion of this course, students will be able to:*	**Related to Program Level SLO#**
1. Demonstrate how to appropriately answer questions from clients regarding domestic and international airline travel.	
2. Demonstrate knowledge on reservations and ticketing information, security, baggage allowance, special in-flight services, medical assistance services, unaccompanied children and have basic knowledge of the American Society of Travel Agent's (ASTA) Air Traveler's Bill of Rights.	1,2

HS251B Internet Travel *Upon successful completion of this course, students will be able to:*	**Related to Program Level SLO#**
1. Demonstrate knowledge of how the Internet can be used as a tool for the travel and tourism industry.	1
2. Demonstrate the convergence of the Internet as an alternate and additional distribution channel for travel services for travel professionals and travelers alike.	1
3. Demonstrate knowledge by accessing and researching travel destinations and making a pseudo-reservation using the Internet.	1

HS257 Principles of Tour Guiding *Upon successful completion of this course, students will be able to:*	**Related to Program Level SLO#**
1. Demonstrate knowledge of the required rules and regulations, the historical, cultural, natural and government process on the island of Guam from the pre-contact time to today in an accelerated timeline.	1,2
2. Identify and describe duties and responsibilities of tour guides.	1
3. Complete a Practicum and additional training regarding tour guiding principles.	1,3

HS260 Travel Professionals *Upon successful completion of this course, students will be able to:*	**Related to Program Level SLO#**
1. Demonstrate knowledge of the similarities and differences of domestic and international travel and its impact on the traveler.	1
2. Plan and execute an itinerary to include necessary documentation to fit the needs of the travelers and their destination.	1
3. Demonstrate the proper attitude and commitment to excellence in marketing, selling and customer service through the use of variety of technologies.	1,3

HS265 Eco Tourism *Upon successful completion of this course, students will be able to:*	**Related to Program Level SLO#**
1. Demonstrate eco-tourism as an environmentally focused, responsible and sustainable type of tourism.	1
2. Match the type of eco-tourism; nature based, cultural, adventure and/or alternative to the eco-traveler.	1
3. Explain career opportunities in the eco-tourism field and how best to use this training to become a travel professional of the new century.	3

Program Level SLOs

VISUAL COMMUNICATIONS/A.S.													
I = Introduced R = Reinforced E = Emphasized **List course alpha and no.** ⇨	VC101	VC102	VC125	VC126	VC131	VC135	VC141	VC145	VC161	VC165	VC172	VC201	
Student Learning Outcomes – Program Level Upon successful completion of this program, students will be able to:													
1. Enter digital publishing, Internet web media design and video production industries.	**E**	**E**	**E**	**E**	**E**	**E**	**E**	**E**	**E**	**E**	**E**	**E**	
2. Apply the visual elements of line, shape, value, color, texture typography and space in the creation of visual products.	**I**	**R**	**E**	**E**	**R**	**E**	**R**	**R**				**R**	
3. Create materials using desktop publishing applications for print.					**I**	**E**		**R**				**R**	
4. Plan, record and edit video productions.							**R**	**R**	**I**	**R**		**R**	
5. Produce and edit photographic and scanned images.			**R**	**R**	**R**	**R**	**R**				**I**	**R**	
6. Work with customers and clients of visual production companies to develop visual advertising and public information products and programs.						**R**	**R**		**R**	**R**		**E**	

Course Level SLOs

VC101 Introduction to Visual Communications *Upon successful completion of this course, students will be able to:*	**Related to Program Level SLO#**
1. Use the vocabulary of graphic design to demonstrate an understanding of standard graphic visual concepts, light and color, perception, trends, forms, and delivery of digital media.	2
2. Identify the six typeface families and demonstrate how each one expresses a mood.	2
3. Find and recognize reference art to demonstrate understanding of visual graphic concepts and uses.	2
4. Distinguish basic visual processes, physiological aspects and sensual and perceptual theories.	2
5. Develop an understanding of injurious imaging, including cartoons, prejudicial thinking, stereotyping.	1
6. Know the ethical and legal standards regarding the uses of graphic design and images and computer applications.	

VC102 Design Principles and Elements *Upon successful completion of this course, students will be able to:*	**Related to Program Level SLO#**
1. Apply procedures to solve design problems while considering the factors of materials, tools (computer, camera), style, choice and creative license.	2
2. Recognize and apply the elements of graphic design including space, line, shape, value, texture and color space and balance, contrast and variation.	2
3. Use basic analog (drawing) and digital (computer) methods to create graphic design projects.	
4. Select effective typography and text composition in graphic design.	2
5. Develop an understanding of injurious imaging, including cartoons, prejudicial thinking, stereotyping.	
6. Know the ethical and legal standards regarding the uses of graphic design and images and computer applications.	

VC125 digital Graphics: Photoshop *Upon successful completion of this course, students will be able to:*	**Related to Program Level SLO#**
1. Understand and use the vocabulary of PhotoShop activity.	1
2. Apply the principles of good graphic design to computer graphic projects.	2
3. Navigate with the tools of PhotoShop to create and edit graphics for print and for the web.	1
4. Employ basic photo and scan editing and corrections including cloning, healing and patching.	5
5. Use layers, masks paths and channels to produce graphic images.	1
6. Differentiate between vector and raster (bit-map) graphics.	1
7. Prepare images for two-color printing.	1
8. Produce and print consistent color.	1
9. Optimize web images and image maps.	2

VC126 Digital Graphics: Illustrator® *Upon successful completion of this course, students will be able to:*	**Related to Program Level SLO#**
1. Apply the principles of good graphic design to create artwork required by computer graphic projects.	2
2. Work with type including creation of type, type masks, formatting and wrapping text.	2
3. Understand the tools and procedures of Illustrator and navigate to the proper tool to create and edit graphics for print and for the web.	1
4. Understand and use the common vocabulary of Illustrator.	1
5. Combine Illustrator graphics and PhotoShop images.	1
6. Draw cylinders and boxes and use gradients and brushes to draw shapes.	2
7. Create images for web publication including exporting in GIF and JPEG formats.	1

VC131 Desktop Publishing *Upon successful completion of this course, students will be able to:*	**Related to Program Level SLO#**
1. Understand the standard vocabulary of desktop and print publishing.	3
2. Use application tools and functions common to desktop publishing and page layout software.	3
3. Locate and choose fonts needed for DTP projects.	3
4. Employ palettes and apply functions common to DTP including color, layout style sheets and measurements.	3
5. Setup documents using forms, rules and tables.	3
6. Distinguish between effective usage of inkjet and laser printers.	3
7. Use efficient digital project file management.	3
8. Practice efficient working techniques.	6

VC135 InDesign® *Upon successful completion of this course, students will be able to:*	**Related to Program Level SLO#**
1. Use Adobe InDesign® publishing software to complete page layouts and designs for a variety of professional publishing purposes.	
2. Utilize professional graphic design, layout , and typography techniques.	
3. Import existing files from word processing and raster and vector graphics programs into the publishing program.	
4. Produce sophisticated layouts including text and graphic images.	

VC141 Web design *Upon successful completion of this course, students will be able to:*	**Related to Program Level SLO#**
1. Produce a simple multi-page web site.	1
2. Use effective web typography.	2
3. Upload web sites and modification to web servers.	1
4. Employ current practices of web site graphics.	1
5. Create Cascading Style Sheets.	1
6. Write simple HTML coding.	1
7. Create rollover buttons.	1

VC145 Macromedia Suite *Upon successful completion of this course, students will be able to:*	**Related to Program Level SLO#**
1. Create web site photo viewers.	1
2. Demonstrate advanced design techniques with Fireworks.	1
3. Include movies and filmstrips in web pages.	1
4. Design and create animations including animated maps with Flash.	1
5. Employ computer-Generated Imagery (CGI) and other interactive actions.	1

VC161 Video I *Upon successful completion of this course, students will be able to:*	**Related to Program Level SLO#**
1. Produce simple video productions from planning through editing.	4
2. Plan and create storyboards for video productions and shoot video according to plans.	4
3. Operate a variety of video camera and use a variety of camera moves with hand-held and studio camera.	4
4. Understand and use the common vocabulary of video productions.	4
5. Use and control natural and artificial lighting.	4
6. Demonstrate use of a variety of industry-standard shots.	4
7. Employ a variety of microphones and audio mixers used in audio recording.	4
8. Employ simple computer digital editing including titling and audio dubbing.	4

VC165 digital Editing: Final Cut Pro *Upon successful completion of this course, students will be able to:*	**Related to Program Level SLO#**
1. Capture video and import audio into the computer to establish the content for the editing process.	4
2. Apply animation to incorporate motion to still images.	4
3. Add and edit voice and music tracks.	4
4. Understand and use the common vocabulary of digital video editing.	4
5. Use the tools, commands and procedures of Final Cut Pro.	4
6. Cut up shots and build video sequence of shots.	4
7. Create titles and credits in a variety of styles.	4
8. Convert video to various final export formats including DVD and Web.	4

VC172 Imaging Concepts and Elements *Upon successful completion of this course, students will be able to:*	**Related to Program Level SLO#**
1. Understand and use the common vocabulary and terms of camera, scanning and digital imaging.	5
2. Recognize and apply the elements of effective aesthetic composition to produce good photographs with cameras.	5
3. Use camera controls of focus, shutter speed and f-stop to vary light entering the camera for effective photography.	5
4. Utilize studio lighting principles for basic portraiture and small product photography.	5
5. Scan photos, negatives, slides and printed images, including text, to produce digital images.	5
6. Employ basic digital photo and image editing using the software including with scanners and other simple computer editing applications.	5

VC201 Project Management and Marketing Solutions *Upon successful completion of this course, students will be able to:*	**Related to Program Level SLO#**
1. Use cooperative teamwork for visual communications problem solving and production.	6
2. Research potential products identifying customers to be targeted.	6
3. Conceptualize and create visual messages for clients and customers using print, video and web media.	1

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