

Course Descriptions

Course Description Key

Example: IDT 1214 TECHNICAL PHYSICS 3-2-4

- IDT -** Indicates the academic department that offers the course. For example, this particular course is being offered by UACCB's Industrial Technology Department.
- 1214 -** This is the course number. The first number indicates the level for the course. Level 1 courses are recommended freshman or entry-level courses. Level 2 courses are typically sophomore or advanced-level courses. The College uses the second and third numbers for record-keeping purposes. The last number in the sequence states the number of credit hours awarded for the course, with some exceptions, where the last two numbers indicate credit hours awarded.
- 3-2-4 -** These numbers represent the actual time spent in this course. The first number indicates how many hours per week the class meets for lectures. The second number designates how many hours per week the class meets for labs. The third and last number indicates how many credits are awarded for this course.

Prerequisites – A listing of courses a student must take before enrolling in this course.

Corequisites – A listing of courses a student must take prior to or at the same time as this course.

ACCOUNTING

ACC 1013 PRINCIPLES OF ACCOUNTING I **3-0-3**
Explores accounting principles and problems, primarily as they apply to the sole-proprietorship form of business. The course places special emphasis on the accounting cycle and its implementation.

ACC 1023 PRINCIPLES OF ACCOUNTING II **3-0-3**
A continuation of Accounting I. Students study partnerships, corporations, and the analysis of financial statements.
Prerequisite: ACC 1013 (Principles of Accounting I) with a grade of C or better.

ACC 1033 COMPUTERIZED ACCOUNTING **3-0-3**
This course involves the comprehensive use of a computerized accounting system. The course study includes accounting for service and merchandising businesses, payroll and company setup using Quickbooks. Spring only. **Pre-requisite:** ACC 1013 (Principles of Accounting I) with a grade of C or better.

ACC 2023 PAYROLL ACCOUNTING **3-0-3**
Introduces students to the major tasks of payroll accounting. Examines employment practices; federal, state, and local governmental laws and regulations; internal controls; and various payroll accounting forms and records. Spring only.
Prerequisite: ACC 1013 (Principles of Accounting I) with a grade of C or better.

ACC 2033 FEDERAL INCOME TAX **3-0-3**
Provides instruction in the basic income tax structure from the standpoint of the individual. Fall only. **Prerequisite:** ACC 1013 (Principles of Accounting I) with a grade of C or better.

ACC 2043 COST ACCOUNTING **3-0-3**
Explores principles and methods of accounting for materials, direct labor, and the distribution of overhead expenses, cost records, operating reports, and budgetary control. **Prerequisite:** ACC 1023 (Principles of Accounting II).

ACC 2053 ACCOUNTING APPLICATIONS **3-0-3**
This course will provide students with the opportunity to apply accounting principles to real-world simulations by completing manual and computerized practice sets and by using Excel to perform various accounting functions. Spring only.
Prerequisite: ACC 1023 (Principles of Accounting II) and CIS 1053 (Computer Software Applications).

AVIATION

AVG 1114 GENERAL AVIATION **25-5-14**
This course is a study of general aviation maintenance policies and procedures. Items to be covered are a technical core of mathematics, physics, and basic electricity and electronics. Basic instruction in aircraft drawings and interpretations, weight and balance calculations, aviation maintenance materials and processes, cleaning and corrosion control, and ground operations and servicing. An in depth study in the use of maintenance publications, maintenance forms and records, and mechanics privileges and limitations. (16 lecture hours/14 lab hours, special course fee) **Prerequisite:** MTH 0003 (Beginning Algebra) or equivalent placement score. **Recommended corequisites:** IDT 1114 (Introduction to Electronics) and IDT 1204 (Basic Electronics I).

AVA 1116 AIRFRAME I**5-25-16**

A study of metal structures of welded tube and riveted sheet, monocoque or semi monocoque. Topics include identification and installation of rivets and other mechanical fasteners in stressed skin construction. The principles of oxy-acetylene welding and inspection; the repair of honeycomb, laminated, and composition materials; and thermo-setting plastics. A survey of wood structures used in early aircraft and current home built aircraft. Other topics include fabric covering and various covering finishes, assembly of major components of the aircraft, rigging of the flight systems and controls, and airworthiness inspection procedures for mechanics. A study of the generation and distribution of hydraulic and pneumatic power throughout the aircraft structure. (14 lecture hours, 16 lab hours, special course fee.)

AVA 1216 AIRFRAME II**5-25-16**

A study of wheels, tires, brakes, fixed and retractable landing gear systems, and position indication and warning systems. A study of the heating, cooling, ventilation and pressurization of the aircraft interior, and protection of exterior surfaces from ice accumulation. Includes fire detection and extinguishing systems, fuel storage, transfer, distribution, and dump systems, and aircraft flight instrument systems. A study of circuit protection devices, switches, and ratings, proof of current requirements, determinations of wire requirements, inverter systems, alternators and AC current and frequency output, aircraft voltage systems, AC generators, and transformers-rectifier principles. Other topics include radio transmitter and receiver principles, and instrument landing systems. (14 lecture hours/16 lab hours, special course fee.)

AVP 1115 POWERPLANT I**5-25-15**

A study of turbine engine powerplants. Specific areas include background and development of turbine engines, turbine engine construction features, purpose, theory of operation, maintenance, inspection, repair, and troubleshooting. Piston engine theory and maintenance including development of air and water cooled aircraft engines. Other topics include power production, horsepower calculation, timing and valve overlap, displacement and volumetric efficiency. Procedures for total engine overhaul from disassembly to reassembly with new and/or serviceable parts to achieve acceptable overhaul tolerance. Included is the removal of and installation of the powerplant, rigging controls, test operation, and troubleshooting. A study of aircraft powerplant accessory systems. Specific areas include lubrication systems, induction systems, cooling systems, and exhaust systems. (14 lecture hours/16 lab hours, special fee)

AVP 1214 POWERPLANT II**5-25-14**

A study of electronic, loop, thermocouple, and thermal switch fire detection circuits, fire warning and extinguishing systems, and engine instrumentation. Other topics include magneto and capacitance discharge ignition systems, DC generators, and powerplant electrical accessories. A study of fuels as chemical mixtures, fuel air ratios, flame characteristics, ignition requirements, and properties such as volatility, anti knock value and vapor pressure tendencies. Other topics include units of a basic fuel system, carburetion, fuel controls, and factors affecting fuel metering. The fundamentals of powerplant inspection including hundred hour inspections. (14 lecture hours/16 lab hours, special fee)

BASIC SKILLS**PRE 0203 PREALGEBRA****3-0-3**

Provides instruction in basic mathematics, including topics such as fractions, decimals, proportions, percentages, metric measurements, word problems, and/or algebra. Enrollment is based on placement test scores. (Credit not applicable toward a degree or certificate.)

PRE 0303 READING IMPROVEMENT**3-0-3**

This course is designed for all students who seek to improve their reading skills. Enrollment is based on placement test scores. Reading Improvement must be successfully completed with a grade of C or better before enrolling in ENG1103 English Composition I when test scores require. (Credit not applicable toward a degree or certificate.)

PRE 0503 BASIC WRITING**3-0-3**

The focus of this course is intensive work on the basic strategy, organization, diction and grammar of the collegiate essay. Basic Writing must be successfully completed with a grade of C or better before enrolling in ENG 1103 English Composition I when test scores require. (Credit not applicable toward a degree or certification.) **Prerequisite:** Grade of C or better in PRE 0113 (Fundamentals of Writing); or equivalent placement score.

PRE 0113 FUNDAMENTALS OF WRITING**3-0-3**

The course focus is intensive work on the basic strategy, organization, diction, and grammar of the collegiate paragraph. This course must be taken before Basic Writing PRE 0503 when test scores require. It is also open to students whose test scores exceed the placement requirements but who desire a basic English refresher course and who can benefit from the course. The course is designed to strengthen students' writing skills from the sentence level through the paragraph level. The content of the course focuses on grammar, punctuation, and usage skills essential for effective writing. The course is not designed to teach collegiate essay development. Fundamentals of Writing must be successfully completed with a grade of C or better before enrolling in PRE 0503 Basic Writing when test scores require.

BIOLOGICAL SCIENCES**BIO 1033 BIOLOGY FOR GENERAL EDUCATION****3-0-3**

A survey of biology to include an introduction to the fundamental principles of living organisms including properties, organizations, function, evolutionary adaptation, and classification. Introductory study of concepts of reproduction, genetics, ecology and the scientific method are included. Not appropriate for biology or health science majors. Lab is required.

Corequisite: BIO 1101 (Biological Science Lab).

BIO 1101 BIOLOGICAL SCIENCE LAB**0-2-1**

Students will apply laboratory techniques in experimentation and observation to illustrate biological concepts.
Corequisite: BIO 1033 or 1103 (Biology for General Education or Biology for Majors)

BIO 1103 BIOLOGY FOR MAJORS**3-0-3**

Cellular and molecular biology are the main areas of focus. Basic concepts of ecology will also be covered.
Corequisite: BIO 1101 (Biological Science Lab)

BIO 1011 ESSENTIALS OF ANATOMY/PHYSIOLOGY LAB**0-2-1**

A laboratory experience emphasizing the anatomy of human organ systems and measurements of human physiology. *The course does not meet requirements for AS degree science majors.* **Corequisite:** BIO 1013 (Essentials of Anatomy and Physiology). **Prerequisite:** A grade of C or better in PRE 0303 (Reading Improvement); or enhanced ACT reading sub score of 19; or ASSET score of 43 or above in reading; or Compass score of 82 or above in reading.*

BIO 1013 ESSENTIALS OF ANATOMY AND PHYSIOLOGY**3-0-3**

Focuses on concepts of basic chemistry and human biology, including basic cellular biology and the structure and function of human organ systems. The course is designed for majors in EMT-P, Medical Office Management, Practical Nursing, and Surgical Technology, and as an AA degree general education or liberal arts focus elective. *It does not meet requirements for AS degree science majors.* **Corequisite:** BIO 1011 (Essentials of Anatomy and Physiology Laboratory). **Prerequisite:** a grade of C or better in PRE 0303 (Reading Improvement); or enhanced ACT reading sub score of 19; or ASSET score of 43 or above in reading; or Compass score of 82 or above in reading.*

BIO 1111 GENERAL BOTANY LAB**0-2-1**

This course will cover the structure and function of plants. Topics to be covered include cells, tissues, photosynthesis, survey of plant groups, and plant reproduction. Students will be required to use microscopes and other lab equipment as necessary. This course is designed for science majors. **Prerequisite:** BIO 1103 (Biology for Majors) & BIO 1101 (Biological Science Lab). **Corequisite:** BIO 1113 (General Botany).

BIO 1113 GENERAL BOTANY**3-0-3**

This course covers the fundamental principles of botany, including properties, structure and function, growth, and classification of plants. Concepts included are plant reproduction, photosynthesis, ecology, and genetics. This course is designed for science majors. **Corequisite:** BIO 1111 (General Botany Lab). **Prerequisites:** BIO 1103 and 1101 (Biology for Majors and Lab with a grade of C or better).

BIO 1121 PRINCIPLES OF ZOOLOGY LABORATORY**0-2-1**

Laboratory exercises illustrating animal structure, physiology, genetics, and ecology. **Corequisite:** BIO 1123 (Principles of Zoology).

BIO 1123 PRINCIPLES OF ZOOLOGY**3-0-3**

Principles governing all animals' forms and functions. This course will cover extensively the phylogenetic survey of the Kingdom Protista and Kingdom Animalia. **Corequisite:** BIO 1121 (Principles of Zoology Laboratory). **Prerequisite:** BIO 1103/1101 (Biology For Majors and Lab).

BIO 2001 ANATOMY & PHYSIOLOGY I LAB**0-2-1**

Emphasizes cell structure; histology of human tissues; anatomy of the integument, human skeleton, muscles, and nervous system. **Corequisite:** BIO 2003 (Anatomy and Physiology I). **Prerequisite:** A grade of C or better in PRE 0303 (Reading Improvement); or enhanced ACT reading sub score of 19; or ASSET score of 43 or above in reading; or Compass score of 82 or above in reading.*

BIO 2003 ANATOMY & PHYSIOLOGY I**3-0-3**

The first course of a two-semester sequence. Topics include anatomical terminology, basic biochemistry, cellular biology, histology, the structure and function of the integumentary, skeletal, muscular, and nervous systems. **Corequisite:** BIO 2001 (Anatomy & Physiology Lab). **Prerequisite:** A grade of C or better in PRE 0303 (Reading Improvement) or in ENG 1103 (English Composition I); or enhanced ACT reading sub score of 19; or ASSET score of 43 or above in reading; or Compass score of 82 or above in reading.*

BIO 2011 ANATOMY & PHYSIOLOGY II LAB**0-2-1**

Emphasizes reflexes and sensation, special senses, hematology, anatomy of the heart, circulatory system, respiratory, digestive, urinary, and reproductive systems, ECGs, and urinalysis. **Prerequisite:** BIO 2003/2001 (Anatomy and Physiology I) or permission of instructor. **Corequisite:** BIO 2013 (Anatomy & Physiology II).

BIO 2013 ANATOMY & PHYSIOLOGY II**3-0-3**

The second course of a two-semester sequence. Covers the structure and functions of the following systems: special senses, endocrine, circulatory, lymphatic, immune, respiratory, digestive, urinary, and reproductive. Nutrition and metabolism are also covered. **Prerequisite:** BIO 2003/2001 (Anatomy and Physiology I) with C or better or permission of instructor. **Corequisite:** BIO 2011 (Anatomy & Physiology II Lab).

BIO 2103 PATHOPHYSIOLOGY FOR HEALTH CARE PROFESSIONALS **3-0-3**
Study of the pathology and general health management of diseases and injuries across the life span. Topics include etiology, symptoms, and the physical and psychological reactions to diseases and injury. **Prerequisites:** BIO 2003 and 2001 (Anatomy and Physiology I and Lab) and BIO 2013 and 2011 (Anatomy and Physiology II and Lab) with a C or better or BIO 1013 and 1011 (Essentials of Anatomy and Physiology and Lab) with a C or better.

BIO 2201 MICROBIOLOGY LABORATORY **0-3-1**
Provides experience with microbiological laboratory techniques. Emphasis placed on culturing and identifying medically important bacteria and human parasites. **Corequisite:** BIO 2203 (Microbiology).*

BIO 2203 MICROBIOLOGY **3-0-3**
Emphasizes the biology of medically important microorganisms. Topics include the history of microbiology, cellular and molecular biology of prokaryotes, epidemiology and pathogenicity, as well as surveys of bacterial, fungal and viral groups. **Prerequisite:** Any biology course with a four-hour combination of lecture and laboratory with a C or better, except BIO1033, (Biology for General Education). **Corequisite:** BIO 2201 (Microbiology Laboratory). *

BIO 2301 FIELD TECHNIQUES IN SCIENCE **0-2-1**
Field Techniques in Science is a course that is designed to introduce the student to standard techniques that are employed in various avenues of scientific investigation. This course will be the practical application of the ideas in the scientific curriculum (i.e., Biological Sciences, Zoology, Chemistry, and Statistics). Specifically, the students will learn standard methods for monitoring the environment (e.g., water chemistry and bio-monitoring), as well as techniques that are of interest to the students and/or instructor.

SSC 29-- SPECIAL TOPICS SCIENCE
Designation used for courses of current interest in various fields of science that are not included as a permanent part of our official course offerings. The title of the course will reflect the specific subject matter.

*To take a science course without the corequisite, you must have the written approval of the instructor.

BUSINESS

BUS 1013 INTRODUCTION TO BUSINESS **3-0-3**
A survey of the field of business administration with emphasis in the functional areas of marketing, production, business organizations and ownership, financial management, communication, taxation, and regulation.

BUS 1023 BUSINESS COMMUNICATIONS **3-0-3**
Provides a comprehensive study of correspondence used in the modern business. Emphasis is placed on writing effective business correspondence documents and reports. **Prerequisite:** ENG 1103 (English Composition I).

BUS 1033 INTRODUCTION TO INVESTMENT **3-0-3**
This course is an introduction to the study of investments and investing. Topics covered include individual debt and equity investments, mutual fund companies, the efficient market hypothesis, risk and return, and portfolio management.

BUS 2013 PRINCIPLES OF MANAGEMENT / BADM 2513 **3-0-3**
Students study and develop techniques and skills in the principal areas of management; planning and decision-making; organizing and human resources; leadership, including motivation and communications; and control. (Cross listed as BADM 2513) Spring only.

BUS 2033 LEGAL ENVIRONMENT OF BUSINESS **3-0-3**
Provides an introduction to the fundamental elements of the legal system including the use of the legal system in the remedy of business disputes, the development and operation of the court system, and the regulation of American business and industry.

BUS 2043 HUMAN RESOURCE MANAGEMENT **3-0-3**
This course is an introduction in the study of human resource management. Topic areas such as development of effective HRM programs, enhancing employee relations and productivity, compensation, benefits and labor relations are discussed.

BUS 2053 STATISTICS **3-0-3**
Descriptive and inferential statistical techniques and methods in business are taught. Topics include qualitative data analysis, frequency distributions, numerical methods, data dispersions, variance analysis, estimation theory, sampling distributions, discrete and continuous probability distributions, hypothesis testing and confidence interval estimation. **Prerequisites:** MTH 1023 (College Algebra) or equivalent. (Cross listed as MTH 2053.)

BUS 2063 QUANTITATIVE STATISTICS **3-0-3**
An introduction to quantitative methods frequently used in business. Topics include regression analysis, decision analysis and expected values, Chi Square, sampling techniques, forecasting, linear programming, simulation, transportation problems and queuing analysis.

BUS 2113 BUSINESS ETHICS / BLAW 2003 **3-0-3**
The focus of this course is primarily on the ethical issues that business decision maker's face in developing policies about employees, customers, and the general public.

- BUS 2203 SUPERVISION FOR INDUSTRY** **3-0-3**
 This course pays particular attention to the unique issues, ideas, and trends which affect the supervisor in an industrial setting. Discussion topics include technology and the supervisor; ethics and the supervisor; planning, scheduling, organizing, and controlling; productivity, problem solving, and legal issues. (Cross-listed with ITM 2203.)
- BUS 2253 PRINCIPLES OF FINANCE** **3-0-3**
 Provides an introduction to financial management techniques including the framework with which to analyze and make decisions regarding financial resources. Fall only. **Prerequisite:** ACC 1013 (Principles of Accounting I).
- BUS 2503 PERSONAL FINANCE** **3-0-3**
 This is a survey of personal finance and investment, focusing on topics which touch on the lives of everyone. Topics to be covered include: personal/family budgeting, banking services, income taxes, credit and credit cards, automobiles and other major purchases, insurance products (health, life, property, liability), investments and retirement planning, real estate, and estate planning.
- BUS 2513 PRINCIPLES OF MARKETING** **3-0-3**
 Provides a study of the business activities performed to direct the flow of goods and services from the producer to the consumer. Major topics include consumer behavior, market research, products, pricing, promotion, and distribution. Fall only.
- BUS 2533 INTERNSHIP – SUMMER** **3-0-3**
 A cooperative program between the student, the College, and business and industry to begin to develop the necessary skills needed to be successful in the job environment. Students spend two hours in class for a brief indoctrination and productive hours on-the-job training during the summer.
- BUS 2653 INTERNSHIP** **3-0-3**
 A cooperative program between the student, the College, and business and industry to begin to develop the necessary skills needed to be successful in the job environment. Students spend 4 weeks in class and productive hours on-the-job training during the semester. Students work with the instructor to develop meaningful learning objectives based on the job assignments. (Cross listed as IDT 2523.)
- BUS 2753 SMALL BUSINESS MANAGEMENT / BADM 2523** **3-0-3**
 Capstone course designed for students to apply what they have learned in other courses about the issues involved in organizing and operating a small business. Topics include personal qualifications, small business techniques, capital requirements, and forms of organizations, location, and sources of assistance. Spring only. **Prerequisite:** ACC 1013 (Principles of Accounting I).
- BUS 2893 CULTURAL DIMENSIONS OF INTERNATIONAL BUSINESS** **3-0-3**
 This course provides the students with an understanding of the impact that different elements have on doing business across international borders. Topics include verbal and non-verbal communication, religion, languages, the role of gender, and the role of government.
- SBU ---- SPECIAL TOPICS BUSINESS** **3-0-3**
 Designation used for courses of current interest in business that are not included as a permanent part of our official course offerings. The title of the course will reflect the specific subject matter.
- CHEMISTRY**
- CHM 1001 FUNDAMENTALS OF CHEMISTRY LAB** **0-3-1**
 Laboratory exercises to strengthen understanding in lecture. Topics include chemical measurements, separation of mixtures, identification of unknown liquids and solids, calculations of empirical formulas, calorimetry, Lewis dot modeling, specific heat, titration of acids and bases and pH. **Corequisite:** CHM 1003 (Fundamentals of Chemistry).
- CHM 1003 FUNDAMENTALS OF CHEMISTRY** **3-0-3**
 Fundamentals of chemical terms and the mathematical concepts needed to succeed in chemistry. Drills on problem solving skills. Recommended for students with no chemistry background. **Prerequisite:** A grade of C or better in MTH 0013 (Intermediate Algebra) or higher; or enhanced ACT math subscore of 19 or above; or ASSET score of 43 or above in Intermediate algebra; or Compass score of 66 or above in Intermediate Algebra. **Corequisite:** CHM 1001 (Fundamentals of Chemistry Laboratory).
- CHM 1101 COLLEGE CHEMISTRY I LABORATORY** **0-3-1**
 A laboratory experience to support CHM 1103. **Corequisite:** CHM 1103 (College Chemistry I). Fall only.
- CHM 1103 COLLEGE CHEMISTRY I** **3-0-3**
 The first course of a two-semester sequence. Concepts covered include fundamentals of chemistry, stoichiometry, atomic structure, chemical periodicity, bonding and orbital theory, chemical reactions, gases and nuclear chemistry. **Prerequisites:** A grade of C or better in MTH 0013 (Intermediate Algebra); or enhanced ACT math sub score of 19; or ASSET score of 43 or above in Intermediate Algebra; or Compass score of 66 or above in Intermediate Algebra; and high school chemistry or CHM 1003 / 1001 (Fundamentals of Chemistry / Laboratory). **Corequisite:** CHM 1101 (College Chemistry I Laboratory). Fall only.

CHM 1121 COLLEGE CHEMISTRY II LABORATORY **0-3-1**
A laboratory experience to support CHM 1123. **Corequisite:** CHM 1123 (College Chemistry II). Spring only.

CHM 1123 COLLEGE CHEMISTRY II **3-0-3**
The second course of a two-semester sequence for chemistry majors, other science majors and pre-professional students. Concepts covered include liquids, solutions, solids, acids, bases, salts, redox reactions, thermodynamics, kinetics, and equilibrium reactions. **Prerequisites:** MTH 1023 (College Algebra) and CHM 1101 / 1103 (College Chemistry I and Lab). **Corequisite:** CHM 1121 (College Chemistry II Laboratory). Spring only. *

CHM 2111 ORGANIC AND BIOCHEMISTRY LABORATORY **0-3-1**
This course is for students in allied health and agriculture programs. The lab meets three hours per week. The course will explore practical applications of compounds studied in the lecture section. **Prerequisite:** CHM 1101 (College Chemistry I Laboratory) and CHM 1103 (College Chemistry I). **Corequisite:** CHM 2113 (Organic and Biochemistry). Spring only.*

CHM 2113 ORGANIC AND BIOCHEMISTRY **3-0-3**
This course is for students in allied health and agriculture programs. The lecture class meets for three hours each week. Course will include an overview of types of organic compounds and biochemical processes. **Prerequisite:** CHM 1101 (College Chemistry I Laboratory) and CHM 1103 (College Chemistry I). **Corequisite:** CHM 2111 (Organic and Biochemistry Lab). Spring only.

*To take a science course without the corequisite or prerequisite, you must have the written approval of the instructor.

COMPUTER INFORMATION SYSTEMS

CIS 1003 INTRODUCTION TO COMPUTERS **3-0-3**
Provides a fundamental orientation regarding what computers are and what they can do. Topics include computer hardware, data input and output, data representation, auxiliary storage, data files, operating systems, and application of software. Students receive some hands-on experience in the computer lab with various microcomputer software.

CIS 1033 PC HARDWARE REPAIR I **3-0-3**
Provides instruction on PC hardware components including the system board, hard drives, floppy drives and memory chips. How software and hardware work together is discussed. A brief introduction to basic electricity and power supplies is provided. Students receive some hands-on experience in lab. Fall only.

CIS 1053 COMPUTER SOFTWARE APPLICATIONS (Word Processing, Electronic Spreadsheet, Database, Presentation) **3-0-3**
Provides instruction in the use of word processing, electronic spreadsheet, database and presentation software for microcomputers. Students will become more familiar with microcomputer operations, operating systems and ways of solving everyday problems with word processing, electronic spreadsheet, database and presentation software programs.

CIS 1103 COMPUTER GRAPHICS **3-0-3**
Provides instruction in the use of graphics application software for computers. Includes designing, creating, editing, and enhancing graphics using application software. Every spring, also fall even years only.

CIS 2013 APPLIED ELECTRONIC SPREADSHEETS **3-0-3**
Provides an advanced understanding of the popular business spreadsheet software program for Windows. Course content includes creating, modifying, and printing spreadsheets, using spreadsheets to solve problems, graphing, and database operations. **Prerequisite:** CIS 1053 (Computer Software Applications).

CIS 2034 PC HARDWARE REPAIR II **3-2-4**
This course is a follow-up to PC Hardware Repair I. Windows operating systems, modems and PCs on a network and on the Internet are all discussed. Notebook computers, printers and SCSI devices are covered. Troubleshooting and maintenance fundamentals are introduced. This is a preparatory course for the A+ Certification. Students receive hands-on experience in lab. Spring only. **Prerequisites:** CIS 1033 (PC Hardware Repair I).

CIS 2153 INTRODUCTION TO PROGRAMMING **3-0-3**
The course consists of programming software that introduces students to problem solving, design, coding, debugging, and documentation of programs. The course will use visual concepts to enhance this learning experience. Fall only. **Prerequisite:** CIS 1003 (Introduction to Computers).

CIS 2044 PC TROUBLESHOOTING **4-0-4**
This course is a follow-up course to PC Hardware II. Troubleshooting is a process that helps a user to find problems on a PC. An orderly process to troubleshooting should be used, based on the PC standards. Documentation is a very important part of the troubleshooting process. Students will develop the skill to document any PC problem. This course gives the student the fundamental knowledge needed to document and troubleshoot a PC. **Prerequisite:** CIS 1033 (PC Hardware Repair I). **Recommended Corequisite:** CIS 2034 (PC Hardware Repair II).

CIS 2063 DATABASE MANAGEMENT **3-0-3**
Provides instruction in database applications and the fundamentals of database design. Topics include database structure, database processing. Students receive hands-on experience with microcomputer application programs that access a database. Fall only. **Prerequisite:** CIS 1053 (Computer Software Applications).

CIS 2103 ADVANCED COMPUTER GRAPHICS**3-0-3**

This course will provide instruction in the use of Photoshop to enhance graphics. Topics covered will include designing, creating, editing, and enhancing graphics and/or photographs using Photoshop software. Fall only. **Prerequisites:** CIS 1103 (Computer Graphics) or permission of the instructor. This course is a learning community course and students must also be enrolled in Photography and Advanced Computer Graphics. Fall, odd years.

CIS 2214 NETWORKING HARDWARE I WITH LAB**3-2-4**

Provides the fundamental knowledge needed to design, configure and implement a Local Area Network. Emphasizes the integration of available software and hardware elements and provides a good understanding of network architecture and protocols. Uses CISCO curriculum. Fall only.

CIS 2223 NETWORKING SOFTWARE**3-0-3**

Explores basic and advanced Windows Operating System computer network administrative techniques valuable for network managers, PC support personnel, programmers, and system and network administrators. Students will install local area network software using PC compatible microcomputers and learn to administer a network utilizing Windows. Spring only. **Prerequisite:** CIS 1033 (PC Hardware).

CIS 2224 NETWORKING HARDWARE II WITH LAB**3-2-4**

Provides advanced knowledge of CISCO routers. Emphasis is placed on subnets, routing protocols and access list. Also developing systems from inception. Spring only. **Prerequisite:** CIS 2214 (Networking Hardware I).

CIS 2233 COMPUTER SECURITY**3-0-3**

Presents an in-depth orientation the fundamentals of computer system security. Topics include monitoring, incident response, forensic analysis, hardware and software security, network security and encryption. Students will receive hands-on experience with various security techniques in a lab setting. Spring only.

CIS 2253 INTERNET/WEBPAGES/SOFTWARE PLATFORM**3-0-3**

This course explores communication and web terminology via the Internet. Students will learn communications, internet essentials and applications along with skills necessary for designing WebPages.

CIS 2263 INTERNET BUSINESS FUNDAMENTALS**3-0-3**

This course teaches students how to access business information and resources on the Internet using a Web browser as a general purpose Internet application. Students will also use a variety of Web-based search engines to conduct advanced searches and learn the basics of electronic commerce and security issues. Spring, even years only. **Pre or Co requisites:** CIS 2253 Internet /Web Pages/ Software Platform

CIS 2303 DYNAMIC WEB DEVELOPMENT**3-0-3**

Introduces the basic elements of dynamic web design: database connectivity, data retrieval, data validation and data maintenance. Examine how these elements can be combined to create effective layouts. Teaches organization of data, concept development, site planning and methods of dynamic web page development. **Prerequisite:** CIS 2413 (Web Development) and CIS 2513 (Web Development Software).

CIS 2413 WEB DEVELOPMENT**3-0-3**

Introduces the basic elements of web page design: typography, imagery and color. Examines how these elements can be combined to create effective layouts. Teaches organization of materials, concept development, site planning, and various methods of web page construction. Spring, odd years only. **Prerequisites:** CIS 2253 (Internet/ Web Page/ Software Platform) and CIS 1103 (Computer Graphics).

CIS 2513 WEB DEVELOPMENT SOFTWARE**3-0-3**

An overview of Web Development Software. Topics include Web page creation and Web site management, and the creation, revision, and enhancement of Web pages with links, graphics, tables, and forms via a variety of authoring tools. This course will also cover planning, building, promoting and maintaining a professional Web site using the software packages available. Fall, even years only.

SCS ---- SPECIAL TOPICS/CIS**3-0-3**

Provides an opportunity for students to study topics of current and/or professional interest in the field of computer information systems. Topics studied must be approved by the Division Chair of Business, Technology and Public Service and should not duplicate material covered in the technical core.

NURSING ASSISTANT**CNA 1107 NURSING ASSISTANT****6-5-7**

A study of nurse assisting including communication and interpersonal skills; infection prevention and control; safety and emergency procedures; promoting independence and respecting resident rights; introduction to resident care; personal care; basic nursing skills; social, cognitive and behavioral skills.

COLLEGE SUCCESS

COL 1003 STRATEGIES FOR COLLEGE SUCCESS

3-0-3

This course is an orientation designed to assist students in developing strategies for meeting the demands of college life. Topics include making the transition to college, becoming motivated for success, managing one's time more effectively, reading a textbook, taking lecture notes and examinations, making decisions, seeking and selecting a career, and locating and using various campus resources.

COL 1011 INFORMATION LITERACY

0-2-1

The Information Literacy course is designed to help students become full participants in an Information Society. Primarily practical in scope, the course uses a mixture of lecture and hands-on assignments to give the technical skills and critical thinking abilities students need to use printed and electronic information resources in libraries and on the Internet. After successfully completing this course, students will be able to locate, critically evaluate and apply information in academic courses and in professional and personal life.

CRIMINAL JUSTICE

CRJ 1103 INTRODUCTION TO CRIMINAL JUSTICE

3-0-3

Introduces the student to the history, development, and philosophy of law enforcement, courts, and corrections in a democratic society. An overview of the United States Criminal Justice system is an integral part of this course.

CRJ 1203 LAW ENFORCEMENT ETHICS

3-0-3

An examination of ethical issues encountered by law enforcement. Includes the study of ethical decisions, physical force, discretion, misconduct, authority and responsibility, undercover operations, and privacy.

CRJ 1303 CRIMINAL PROCEDURES AND EVIDENCE

3-0-3

Focuses on the criminal process, legal problems associated with investigation of crime, acquisition and preservation of evidence, the rules of evidence, admissibility of evidence, exclusion of illegally seized evidence, hearsay evidence, opinion and expert testimony, commencement of criminal proceedings, prosecution and defense of charges, sentencing and appeal. Spring only.

CRJ 1403 CRIMINAL INVESTIGATIONS

3-0-3

A study of the fundamentals of criminal investigation, both theory and history; from crime scene to courtroom with an emphasis on techniques appropriate to specific crime scenes. Spring only.

CRJ 2103 POLICE COMMUNITY RELATIONS

3-0-3

A basic introductory course treating the broad field of Police and Community Relations. Focusing particularly on police and community response, the role of progressive police activity and the individual officer in achieving and maintaining positive public support, human relations and information relationships necessary in policing a complex society. Fall only.

Prerequisite: CRJ 1103 (Introduction to Criminal Justice), CRJ 1203 (Law Enforcement Ethics).

CRJ 2203 ARKANSAS CRIMINAL LAW

3-0-3

A study of the criminal statutory provisions in the State of Arkansas including the interpretation of the statutory criminal law as set forth by the Arkansas and U.S. Supreme Courts. **Prerequisite:** CRJ 1103 (Introduction to Criminal Justice).

CRJ 2303 INTRODUCTION TO FORENSIC SCIENCE

3-0-3

A study of physical evidence at the crime scene. Includes searching the crime scene, determining evidence, and the proper collection and packaging of evidence. Other areas of forensic evidence will be presented. Fall only.

CRJ 2403 JUVENILE JUSTICE

3-0-3

A comprehensive study of the juvenile justice system including the rights and responsibilities of parents and children, police authority, the social service system, and the juvenile court and corrections systems. **Prerequisite:** CRJ 1103 (Introduction to Criminal Justice). Fall only.

CRJ 2503 LEGAL WRITING

3-0-3

This course provides a working knowledge of the fundamentals of effective legal writing, analysis, and research. Topics include legal briefs and memoranda, case and fact analysis, citation forms, legal writing styles, field note taking techniques, and effective report writing. **Prerequisite:** CRJ 1303 (Criminal Procedure/Evidence) and ENG 1103 (English Composition I). Spring only.

SCJ ---- SPECIAL TOPICS / CRIMINAL JUSTICE

3-0-3

Provides an opportunity for students to study topics of current and/or professional interest in the field of criminal justice. Topics studied must be approved by the Division Chair of Business, Technology and Public Service and should not duplicate material covered in the technical core. Up to 6 hours equivalent credit in Special Topics will be given to persons for a combination of a certificate of completion from the Arkansas Law Enforcement Training Academy and other approved professional development hours.

EARLY CHILDHOOD EDUCATION

ECE 1003 FOUNDATIONS OF EARLY CHILDHOOD EDUCATION

9-1-3

This course is designed to acquaint the student with the historical roles of families in their child's development. The student will become familiar with the theories supporting early childhood education and learn how to develop an effective program designed uniquely for children (ages birth to eight). The students will also obtain knowledge of state and federal laws pertaining to the care and education of young children. (CDA Block Course, course fee assessed.)

ECE 1103 CHILD GROWTH AND DEVELOPMENT (AAT Statewide Syllabus)

9-1-3

This course is the study of environmental and hereditary effects on the cognitive, affective, psychomotor, and sociolinguistic development of typically and atypically developing children from conception to middle childhood (conception through age 8) with diverse cultural backgrounds within and outside of the United States. The students will be introduced to methods used to observe and evaluate children's development and recognize possible delays in development. Practical application of theory is provided through a variety of hands-on experiences and observations. (CDA Block Course except for AAT students.)

ECE 1203 ENVIRONMENTS FOR YOUNG CHILDREN

9-1-3

This course is designed to provide the student with a broad knowledge base on how to design a program for children developing both typically and atypically. The course provides the opportunity to plan environments that are physically and emotionally secure. Students plan and implement activities that are age, stage and culturally appropriate for children birth to five. (CDA Block Course.)

ECE 1303 FIELD EXPERIENCE

3-0-3

Students are required to demonstrate competency in the following areas: health and safety, interaction with children, implementation of curriculum, personal qualities, professionalism and working with staff. These are aligned to NAEYC Associate Degree Standards. Students are required to respond to weekly journals through the Blackboard Online System. Students are also required to complete a minimum of 96 clock hours of observation and working with young children. Of those 96 clock hours, 13 hours of observation are required in additional mandatory childcare sites. Students must have completed the required paperwork for these observations and be employed or volunteer in a licensed childcare facility in order to apply the skills learned in the previous three courses. Observation of the student's work and evaluation of student skills are conducted by instructors. **Prerequisites:** ECE 1003, ECE 1103, and ECE 1203, or instructor permission.

ECE 2003 CHILD GUIDANCE

3-0-3

This course relates principles of child development to appropriate methods of guiding children's behavior for children Birth through pre-kindergarten, including children with special needs. Techniques for managing groups of children in the various childcare settings are practiced. **Prerequisite:** ECE 1003, 1103, 1203 or CDA. Spring only.

ECE 2103 PRESCHOOL CURRICULUM (B-Pre-K)

3-0-3

This course is based on the foundation of research in child development and focuses on planning and implementing enriching environments with appropriate interactions and activities for young children (ages 3 through 5) including those with special needs, to maximize physical, cognitive, communication, creative, language/ literacy, and social/emotional growth and development. Competencies are based on Standards developed by the National Association for the Education of Young Children for quality early childhood settings. Also covered:

- Information on the Quality Approval process and Accreditation for Early Childhood settings in Arkansas, now called Better Beginnings
- Arkansas Frameworks Handbook for Three and Four Year Olds

Prerequisite: ECE 1003, 1103, 1203 or CDA. Course fee assessed. Fall only

ECE 2203 INFANT/TODDLER CURRICULUM

3-0-3

This course is based on the foundation of research in child development and focuses on planning and implementing enriching environments with appropriate interactions and activities for young children (birth through 2 years) including those with special needs, to maximize physical, cognitive, communication, creative, language/ literacy, and social/emotional growth and development. Competencies are based on Standards developed by the National Association for the Education of Young Children for quality early childhood settings. Also covered:

- Information on the Quality Approval process and Accreditation for Early Childhood settings in Arkansas, now called Better Beginnings
- Arkansas Frameworks Handbook for Infants and Toddlers

Prerequisites: ECE 1003, 1103, 1203 or CDA. Spring only.

ECE 2303 PRACTICUM

3-0-3

Students must be employed or volunteer in a licensed childcare facility to apply the knowledge acquired and skills learned in previous coursework. Observation of the student's work and evaluation of student skills are conducted by instructors following the NAEYC Associate Standards. Students must demonstrate competency in all areas observed and complete a minimum number of clock hours, determined by the institution, of observation and work experience with children birth to five. An emphasis will be on the observation of physical, cognitive, language, social and emotional development in connection with previous courses. **Prerequisites:** ECE 1003, 1103, 1203 or CDA. If not currently working in a child care facility the student will be assigned a specific site to volunteer, observe and be observed by the early childhood instructor. The sites will be chosen by the instructor in relation to where the students live and the quality of the programs.

ECE 2503 PROGRAM ADMINISTRATION**3-0-3**

Provides instruction in topics pertinent to the current and future childcare director/owner. Students will plan all aspects of opening a childcare center including budgeting, personnel management, marketing and meeting state licensure requirements. Spring only. **Prerequisites:** ECE 1003, 1103 and 1203 or CDA. Spring only.

ECE 2603 SEMINAR FOR EARLY CHILDHOOD ADMINISTRATORS**3-0-3**

A study of administrative topics in early childhood education, which are of current and/or future interest to students in this degree program. A focus is placed upon the development of professionalism in the field of early childhood. Fall only. **Prerequisites:** ECE 1003, 1103 and 1203 or CDA. Fall only.

ECE 2903 ART, MUSIC AND CREATIVE MOVEMENT**3-0-3**

Students will receive training in developmentally and age appropriate areas of children's art, music and movement. Participants will be involved in real hands-on activities and learning experiences. NAEYC standards and practices will be followed. Summer only. **Prerequisites:** ECE 1003, 1103 and 1203 or CDA. Odd years.

ECE 2913 CHILDREN'S LITERATURE**3-0-3**

A study of children's literature for use with infants, toddlers and preschoolers. Students will plan and implement activities around major authors and develop creative projects using the Resource Center and library. Summer only. **Prerequisite:** ECE 1003, 1103, 1203 or CDA. Odd years.

ECE 2923 LITERACY AND LANGUAGE ARTS FOR EARLY CHILDHOOD**3-0-3**

This course is designed to make the early childhood educator aware of the acquisition of language and how to provide children birth through pre-kindergarten, including children with special needs with language rich environments by incorporating the four areas of language: speaking, listening, writing and reading. Summer, odd years only. **Prerequisites:** ECE 1003, 1103 and 1203 or CDA.

ECE 2933 SOCIAL STUDIES AND MULTICULTURAL EDUCATION FOR PRESCHOOL CHILDREN**3-0-3**

This course covers the skills needed by preschool teachers to plan, develop, and present developmentally appropriate multicultural and social studies curriculum and activities for preschool children. Includes skills and attitudes young children need to develop in our world today. **Prerequisites:** ECE 1003, 1103 and 1203 or CDA. Even years.

ECE 2943 MATH AND SCIENCE FOR EARLY CHILDHOOD**3-0-3**

Students will become familiar with a variety of ways to introduce children Birth through pre-kindergarten, including children with special needs to ideas and concepts related to math and science. Students will create activities; plan and practice developmentally appropriate experiences that would meet recognized standards (NAEYC, NCTM, etc.) for these areas. Summer only. **Prerequisites:** ECE 1003, 1103 and 1203 or CDA. Summer, even years.

ECE 2953 SPECIAL NEEDS**3-0-3**

This course relates principles of child development to appropriate methods of guiding children's behavior for children Birth through pre-kindergarten, including children with special needs. Techniques for managing groups of children in the various childcare settings are practiced. Summer, even years only.

ECE 2963 HEALTH SAFETY AND NUTRITION**3-0-3**

This course focuses on the health, safety and nutritional guidelines for children, birth through eight years of age, child care licensing requirements and activity planning. Emphasis is placed on establishing safe, quality learning environments and practices that respect the diversity of settings, families and teachers who care for young children. Summer, odd years only.

ECE 2993 FUTURE PERSPECTIVES IN EARLY CHILDHOOD (capstone course)**3-0-3**

This course introduces students to current research in the field of Early Childhood education. Students will develop a knowledge base of the NAEYC Code of Conduct through analyzing case studies designed to demonstrate competencies compatible with current research and practice, development of a professional portfolio to demonstrate competencies in the skills relating to the NAEYC Associate Degree Standards. Spring of last semester only.

SEC ---- SPECIAL TOPICS / EARLY CHILDHOOD EDUCATION**3-0-3**

Provides an opportunity for students to study topics of current and/or professional interest in the field of Early Childhood Education. Topics studied must be approved by the Division Chair of Business, Technology and Public Service and should not duplicate material covered in the technical core.

ECONOMICS**ECN 2013 MACROECONOMICS****3-0-3**

Provides an overall view of how economic systems operate. Topics include aggregate production, income, and expenditures, fiscal and monetary policy, inflation and unemployment, and money and banking. Students gain an awareness of economic problems and analyze alternative solutions. **Prerequisite:** Any one of the following: A grade of C or better in MTH 0003 (Beginning Algebra), with study in MTH 0013 (Intermediate Algebra) highly recommended; Enhanced ACT Math subscore of 17-18; or an ASSET score of 37 or above in Intermediate Algebra; or a Compass score of 47 or above in Intermediate Algebra.

ECN 2023 MICROECONOMICS**3-0-3**

Will examine individual behavior in the economy as well as look at the components of the larger economy. Microeconomic analysis, including market structure, supply and demand, production costs and price and output. **Prerequisites:** Any one of the following: A grade of C or better in MTH 0003 with study in MTH 0013 highly recommended; enhanced ACT math score of 17 to 18; or an ASSET score of 37 or above in Intermediate Algebra; or a Compass score of 47 or above in Intermediate Algebra.

EDUCATION**EDU 2003 INTRODUCTION TO TEACHING****2-1-3**

This course is designed to provide students with an overview of teaching as a profession, providing them with an opportunity to observe the educational process in three settings – elementary, middle school and secondary. Thirty classroom observation hours are required. Students will also be required to take the Praxis I exam. Fall only.

EDU 2103 INTRO TO K12 EDUCATIONAL TECHNOLOGY**3-0-3**

This course is designed to provide students with an overview of the technologies that can enhance teaching and learning. Students will use the computer as a tool to design educational materials, perform classroom management tasks, enhance instruction, communicate and research. Spring only.

SGE ---- SPECIAL TOPICS GENERAL EDUCATION**3-0-3**

Designation used for courses of current interest in various fields of general education that are not included as a permanent part of our official course offerings. The title of the course will reflect the specific subject matter.

EMERGENCY MEDICAL TECHNICIAN**EMT 1107 BASIC EMERGENCY MEDICAL TECHNOLOGY****6-3-7**

An introduction to the study of emergency medical services and the basic principles, procedures and techniques of emergency care. Successful completion of this course prepares students to apply for the National Registry EMT-B Examination.

EMT 2099 PARAMEDIC I**9-0-9**

Designed to prepare the Emergency Medical student to perform advance life support skills; specifically, the recognition of Dysthythmias and Advance Cardiac Life Support Certification. The class will prepare the student for the skills needed to properly start and administer intravenous medications. Endotracheal intubations will be taught in this section with the use of emergency meds administered via the endotracheal airway. Students will be prepared for the clinical portion after completion of the Paramedic I program. It is mandatory for the paramedic to pass this portion of the program in order to continue with the clinical portion of the program. **Prerequisite:** EMT 1107 (Basic Emergency Medical Technology) with a grade of C or better.

EMT 2217 PARAMEDIC II**0-21-7**

An eight-week course designed to prepare the student with both the clinical experience in the hospital setting and field internship experience in the pre-hospital setting. The student will be scheduled clinical rotations in the emergency room, coronary care units, mental health, pediatric units, and labor and delivery. Field internship will be scheduled with local and surrounding county paramedic services. Lecture as well as clinical will be involved in the Paramedic II program. The completion hours for this portion are 250 hours of field internship. Completion of Paramedic I is mandatory in order to participate in this portion of the program.

EMT 2218 PARAMEDIC III**9-27-18**

A 16-week course designed to prepare the student with the skills needed to treat the critically ill and injured patient. The semester will focus on the recognition of medical, trauma, pediatrics, geriatrics, and ob/gyn emergencies. The student will be prepared for the practical portion as well as the written portion of the National Registry Exam. The student will complete 400 hours in the hospital setting during this portion of the program.

ENGLISH**ENG 1103 ENGLISH COMPOSITION I****3-0-3**

Students improve their writing skills through study and practice of fundamentals of written communication, including principles of grammar, punctuation, spelling, organization, and careful analytical reading. **Prerequisite:** College level placement scores in English or writing and reading or completion of PRE 0503 (Basic Writing) and PRE 0303 (Reading Improvement) with at least a C average when placement test scores require.

ENG 1203 ENGLISH COMPOSITION II**3-0-3**

Students continue the practice of ENG 1103 (English Composition I) to develop further the skills learned in that course. Using readings and discussion of various types of writing, students will practice different kinds of rhetorical development, including research and documentation. **Prerequisite:** ENG 1103 (English Composition I) with a C or better.

ENG 1303 TECHNICAL WRITING**3-0-3**

Students learn the basic principles of technical report research, organization, and writing. Assignments include writing proposals, progress reports, and technical articles. **Prerequisite:** ENG 1103 (English Composition I) with a grade of C or better).

ENG 2113 WORLD LITERATURE I	3-0-3
Students analyze and interpret literary works from several historical periods ranging from early civilizations through the Renaissance. English Composition I strongly recommended.	
ENG 2213 WORLD LITERATURE II	3-0-3
Students analyze and interpret literary works from several historical periods ranging from the Renaissance to the present. English Composition I strongly recommended.	
ENG 2313 INTRODUCTION TO FICTION	3-0-3
Students survey short fiction and the novel with emphasis on analytical reading and writing skills.	
ENG 2413 CREATIVE WRITING	3-0-3
Students develop creative perception, thinking, and imagination in writing fiction and poetry. Students will have their work read and critiqued in a workshop format as well as in conference with the instructor. Prerequisite: ENG 1103 (English Composition I).	
ENG 2503 AMERICAN LITERATURE I	3-0-3
American Literature I students will analyze and interpret literary works from the 1400's to 1865. Students will study American authors and the philosophies represented in their works. English Composition I strongly recommended. Fall only.	
ENG 2513 AMERICAN LITERATURE II	3-0-3
American Literature II is a continuation of American Literature I. Students will analyze and interpret works from 1865 to present literature. American Literature I is not a prerequisite for American Literature II. English Composition I strongly recommended. Spring only.	
SEN 29-- SPECIAL TOPICS ENGLISH	3-0-3
Designation used for courses of current interest in English that are not included as a permanent part of our official course offerings. The title of the course will reflect the specific subject matter.	
<u>ENTOMOLOGY</u>	
ENT 2003 PEST MANAGEMENT	3-0-3
An introduction to basic principles of pest management as they relate to vertebrates, insects, plant disease and weeds. Selected pests are studied with emphasis on current management approaches and alternative pest control. Prerequisite: ANSC 1003 (Introduction to Animal and Poultry Sciences).	
<u>ENTREPRENEURSHIP</u>	
ETR 1003 INTRODUCTION TO ENTREPRENEURSHIP	3-0-3
An introduction to the role of entrepreneurial businesses in the US, the impact of entrepreneurial businesses on the US and global economy, how ideas become businesses, how entrepreneurs operate within a company and the general precepts of entrepreneurial businesses.	
ETR 2003 PROFESSIONAL SELLING/ADVERTISING	3-0-3
A course specifically designed to teach the tools of professional selling and advertising methods. Students will learn successful sales techniques for retail and non-retail customers, how to develop an advertising program for products and services and the appropriate medium to use. Prerequisites: BUS 2513 Principles of Marketing, ENG 1103 English Composition I, ENG1203 English Composition II or ENG 1303 Technical Writing, BUS 1023 Business Communications.	
ETR 2013 OPPORTUNITY/FEASIBILITY ANALYSIS	3-0-3
This course will develop the student's knowledge of exploiting, determining, evaluation, and implementing strategies for determining potential entrepreneurial opportunities in the marketplace and analyzing the feasibility of those opportunities. Prerequisites: ENG 1103 English Composition I, ENG 1203 English Composition II or ENG 1303 Technical Writing.	
ETR 2023 FUNDING ACQUISITIONS FOR ENTREPRENEURS	3-0-3
A course designed to teach the various types of funding mechanisms available to the entrepreneurial company and the importance of selecting the proper funding method. Prerequisites: ACC 1013 Principles of Accounting I, ACC 1023 Principles of Accounting II, BUS 2033 Legal Environment of Business.	
<u>FINE ARTS - CINEMA</u>	
FAC 2003 UNDERSTANDING FILM	3-0-3
This course will introduce students to the notion of viewing and understanding movies critically and seeing them in a larger artistic and cultural context.	
<u>FINE ARTS - MUSIC</u>	
FAM 2003 MUSIC	3-0-3
For listeners who have had no formal training or experience, this course provides an introduction to music. The principal purpose is the development of listening skills.	

FINE ARTS - THEATER

FAT 2013 THEATER

3-0-3

This course provides students with an appreciation of how various artistic elements combine to produce theatrical productions.

FAT 2033 ACTING I

3-0-3

Students will explore the craft of acting through script analysis and techniques of characterization. Spring only.

FAT 2043 ACTING II

3-0-3

This course is a continued exploration of the craft of acting through script analysis and techniques of characterization. Spring only.

FINE ARTS - VISUAL ART

FAV 1003 DRAWING I

3-0-3

This is an introductory course in the materials and techniques of drawing, including basic concepts of line, perspective, and value. Techniques will be developed with the study of still life, perspective, portraits, and figures, while special projects encourage creative expression. Spring only.

FAV 1013 INTRODUCTION TO STUDIO ART

3-0-3

Students will learn a hands-on approach to the fundamental media, techniques, and concepts of making art. A variety of materials and projects will encourage creative problem solving. Drawing, design, painting, and sculptural techniques will be introduced, with an emphasis on exploration and individual creativity. Fall only.

FAV 1023 DRAWING II

3-0-3

This course is a continuation of Drawing I, furthering technical mastery of materials while developing creative expression.
Prerequisite: FAV 1003 (Drawing I).

FAV 1033 INTRODUCTION TO PAINTING

3-0-3

Color theory and two-dimensional design problems will be addressed while exploring basic watercolor and acrylic painting techniques. **Prerequisite:** FAV 1003 (Drawing I) or FAV 1013 (Introduction to Studio Art) or written permission of the instructor.

FAV 1043 PAINTING II

3-0-3

Painting II is a continuation of Introduction to Painting (FAV 1033), deepening the student's understanding of color and design, creating images with impact and expressive content. Both opaque and transparent painting techniques will be explored.
Prerequisite: FAV 1033 (Introduction to Painting.)

FAV 2023 VISUAL ART

3-0-3

Students encounter visual art in many media to develop their artistic perception, understanding, and pleasure.

FAV 2103 PHOTOGRAPHY

3-0-3

This hands-on course covers the basics of photography, from the operation of both film and digital cameras, to concepts in composition and lighting, and an introduction to darkroom work. **Prerequisite:** CIS 1103 (Computer Graphics) or permission of the instructor. **Corequisite:** CIS 2103 (Advanced Computer Graphics)

SFA ---- SPECIAL TOPICS FINE ART

3-0-3

Designation used for courses of current interest in the fine arts that are not included as a permanent part of our official course offerings. The title of the course will reflect the specific subject matter.

FINANCE

FIN 1003 PRINCIPLES OF BANKING

3-0-3

An introductory course designed to orient the student to the banking profession. Course topics range from the fundamentals of negotiable instruments to contemporary issues and developments within the industry. Rotated every third semester.

FIN 1013 TELLER ESSENTIALS

3-0-3

This course will develop bank teller skills that consist of interviewing, dressing for success, dealing with customers, basic training skills and Spanish for banking. Fall only.

FIN 1113 LAW AND BANKING: APPLICATIONS

3-0-3

An introduction to laws pertaining to secured transactions, letters of credit and the bank collection process. Rotated every third semester.

FIN 1203 MONEY AND BANKING

3-0-3

Presents a fundamental treatment of how money functions in the US and world economies. Topics include the concept of money supply and the role banks play as a money creator and participant in the nation's payment mechanism. Money and Banking explains how the various types of financial institutions operate, the workings of monetary and fiscal policies and the functions and powers of the Federal Reserve. Rotated every third semester.

FIN 2003 ANALYZING FINANCIAL STATEMENTS**3-0-3**

A practical introduction to financial analysis from the viewpoint of the commercial loan officer, this course provides skills needed to effectively assess a borrower's ability to repay loans. **Prerequisite:** ACC 1013 (Principles of Accounting I). Rotated every third semester.

FIN 2013 CONSUMER LENDING**3-0-3**

Essential information about the maze of regulations governing credit practices and reviews loan processing, cross selling and collections. Rotated every third semester.

GEOGRAPHY**GEO 2003 INTRODUCTION TO CULTURAL GEOGRAPHY****3-0-3**

This course is a study of interaction among cultures and physical environments to develop students' understanding of local and global social issues such as economics, language, population, politics, and religion.

GEOLOGY**GEL 1003 PHYSICAL GEOLOGY****3-0-3**

Introduces geologic concepts including plate tectonics, volcanism, earthquakes, mountain building, glaciation, and hydrologic processes. Students will identify basic minerals and rocks. The rock cycle and its effect on sedimentary, igneous, and metamorphic rocks will be explored. Relationships to Arkansas geology will be featured. Spring only. **Corequisite:** GEL 1001 (Physical Geology Lab)

GEL 1001 PHYSICAL GEOLOGY LAB**0-2-1**

Provides a laboratory experience to support GEOL 1003-01. Students will identify basic minerals, fossils, and rocks, their origins and economic values. Geologic map reading will be practiced. Students will be able to identify geologic structures on maps and photos. Field trips will enhance the lab experience. Spring only. **Corequisite:** GEL 1003 (Physical Geology)

HISTORY**HIS 1013 WORLD CIVILIZATION I****3-0-3**

This course provides an introduction to the history of World Civilization from the dawn of time to the Early Modern era. Students will be introduced to the process of historical inquiry and will be expected to develop skills in logical reasoning as to how and why certain events took place, how they affected society, and how they impact the present. English Composition I strongly recommended.

HIS 1023 WORLD CIVILIZATION II**3-0-3**

This course provides an introduction to the history of World Civilization from the 16th century to recent times. Students will be introduced to the process of historical inquiry and will be expected to develop skills in logical reasoning as to how and why certain events took place, how they affected society, and how they impact the present. English Composition I strongly recommended.

HIS 2003 UNITED STATES HISTORY I**3-0-3**

This course provides an introduction to the history of the United States from its early formation through the process of growth, development, conflict, and expansion to 1876. Students will be introduced to the process of historical inquiry and will be expected to develop skills in logical reasoning as to how and why certain events took place, how they affected the development of the nation, and how they impact the present. English Composition I strongly recommended.

HIS 2013 UNITED STATES HISTORY II**3-0-3**

This course provides an introduction to the history of the United States through the process of growth, development, conflict, and expansion since Reconstruction. Students will be introduced to the process of historical inquiry and will be expected to develop skills in logical reasoning as to how and why certain events took place, how they affected the development of the nation, and how they impact the present. English Composition I strongly recommended.

HIS 2033 THE AMERICAN CIVIL WAR**3-0-3**

This course provides an introduction to the Civil War era and its impact on United States history. The class will be divided into three specific areas of analysis: (1) the coming of the war, (2) the war, and (3) Reconstruction. Special attention will also be given to the war in Arkansas. Fall only. English Composition I strongly recommended.

HIS 2043 THE VIETNAM WAR**3-0-3**

This course is a comprehensive look at America's role in the Vietnam War from 1954 to 1975, with balanced emphasis on military and political events and focus on experiences and memories of Vietnam war veterans. Spring only. English Composition I strongly recommended.

HIS 2053 ARKANSAS HISTORY**3-0-3**

Arkansas History explores the history of Arkansas from the prehistoric era to the modern era. Emphasis will be placed on the 18th century to the present. While focusing on the development of Arkansas, there will also be some introduction to American history and the interconnection of ideas, thoughts, and events. Connections will be made between the development of institutions and the course of events occurring during this period and the current worldview. English Composition I strongly recommended.

HEALTH INFORMATION TECHNOLOGY

HIT 2003 HEALTH DATA CONTENT

3-0-3

This course covers the standards for patient and health care data; data collection issues and documentation requirements; data access and retention. Fall only.

HIT 2013 DIRECTED PRACTICE I

3-0-3

Professional practice experiences in acute care, ambulatory care, rehabilitation, long-term care, and home health. Emphasis on record assembly & analysis, file management, release of information, statistics, indexes and registers, and special projects. Fall only.

HIT 2213 DIRECTED PRACTICE II

3-0-3

Professional practice experiences in acute care, ambulatory care, behavioral health, and cancer registry. Emphasis on ICD-9-CM coding and DRG assignment, CPT coding, quality management, supervisory principles, medical staff & hospital committees, and special projects. **Prerequisite:** HIT 2013 (Directed Practice I). Spring only.

INDUSTRIAL TECHNOLOGY – (Courses to finish out previous catalogs.)

IDT 1003 INTRO TO MANUFACTURING TECHNOLOGY

3-0-3

Examines the basic elements of manufacturing as a managed body of activities. Topics include manufacturing systems, materials, processes, management, and careers. **Prerequisite:** None

IDT 2123 INDUSTRIAL SAFETY

3-0-3

Explores the development of the safety and health movement in the United States. It will identify the causes and effects of accidents. This course will discuss OSHA, workers compensation, ergonomic factors, common hazards found in the work place and the roles of managers and health and safety personnel concerning industrial safety. **Prerequisite:** None

INDUSTRIAL TECHNOLOGY – AAS TECHNICAL CORE

ITC 1013 ENGINEERING DRAWINGS

1-2-3

Teaches the interpretation of mechanical part drawings, electrical schematics, process piping and instrumentation diagrams and other common drawings used in industry. Introduction to drawings tools and practice making drawing sketches. **PREREQUISITE:** None

ITC 1023 TECHNICAL METHODS

1-2-3

Review, reinforcement and/or tips for: Essential algebra and trigonometry topics; calculation simplification and estimating methods; essential scientific calculator topics; essential spreadsheet topics; interpolation methods for tabular data; reading graphs with linear and logarithmic scales; methods for setting up "word problems"; methodologies for successful technical reading and studying; practical methodologies for equipment troubleshooting. **Corequisite:** MTH 0013 - Intermediate Algebra or higher Level Math course

ITC 1033 TECHNICAL PHYSICS

2-1-3

Study of basic physics concepts to include: Units (English & metric), force, work, momentum, power, heat, thermodynamics, waves and magnetism. Strong emphasis on setting up problems for calculation from written problem statements. Lab experiments interspersed with lecture to reinforce concepts. **Prerequisite:** ITC 1023 - Technical Methods

ITC 1043 PROCESS INSTRUMENTATION

1-2-3

An introductory course that covers sensors and transducers for pressure, temperature, flow and level; several types of electronic controllers; flowmeters; control valves; other final control elements. Temperature and flow control loops are built and tested from real process instrumentation. Instrument trainer labs are interspersed with lecture to allow hands-on exposure to process instrumentation. **Prerequisite:** MTH 0013 - Intermediate Algebra

ITC 1053 CONTROL FUNDAMENTALS

1-2-3

This is an introductory course in the two control systems used in industry. The first, feedback control, is the technology used to control unit operations (e.g., flow, pressure, temperature and level control loops). The second, logic control, is the technology used to control equipment using sequential logic. Both types of control are implemented with Distributed Control Systems and/or Programmable Logic Controllers employing continuously varying inputs and outputs for feedback control or discrete inputs and outputs for logic control. PC based simulators with displays similar to industrial system man-machine-interfaces are used in this course. A field trip to a local industrial facility using both logic and feedback control will be accomplished. **Prerequisite:** MTH-0013 - Intermediate Algebra or Higher Level Math Course

ITC 1063 AUTOCAD

1-2-3

Two-dimensional Autodesk AutoCAD will be the software platform. The course is to be designed to reinforce basic manual drawing skills introduced in the Engineering Drawings course. **Prerequisite:** ITC 1013 - Engineering Drawings

INDUSTRIAL TECHNOLOGY – AAS INSTRUMENTATION TECHNOLOGY FOCUS

ITI 2014 ELECTRICITY FOR INSTRUMENTATION TECHNOLOGY

2-2-4

Designed specifically for instrumentation technologists. Introduces the principles of DC electricity to include voltage, current and resistance and AC electricity to include capacitance and inductance. AC motors and motor controls are introduced. Special emphasis on DC circuit analysis as necessary for instrumentation and computers. Series and parallel circuits analyzed mathematically and in laboratory experiments. Instruction on use of digital multimeter and oscilloscope.

PREREQUISITE: *All ITC Courses (Industrial Technology Technical Core)

ITI 2024 ANALOG ELECTRONICS

2-2-4

Introduces semiconductor and solid-state components. Topics include the diode, zener diode, diode for special applications, power components (SCR and TRIAC), transistors (bipolar and FET); amplifiers (Class A, B, C & D); operational amplifiers and oscillators. Labs performed for all topics. **Prerequisite:** *All ITC Courses (Industrial Technology Technical Core); ITI 2014 - Electricity for Instrumentation Technology

ITI 2034 DIGITAL ELECTRONICS

2-2-4

Introduces the principles and hardware used in basic digital circuits. Topics covered include number systems, gates, codes, encoding, decoding, flip-flops, counters and shift registers. Lab exercises with integrated circuit components reinforce textbook topics. **Prerequisite:** *All ITC Courses (Industrial Technology Technical Core); ITI 2014 - Electricity for Instrumentation Technology

ITI 2044 MICROPROCESSORS

2-2-4

Introduces microprocessors and a variety of topics including computer number systems and codes, computer architecture, assembly language programming, computer memory, peripheral devices, digital to analog and analog to digital conversion and computer interfacing. Lab exercises with microprocessor hardware reinforce learning. **Prerequisite:** *All ITC Courses (Industrial Technology Technical Core); ITI 2014 - Electricity for Instrumentation Technology; **Corequisite:** ITI 2034 - Digital Electronics

ITI 2054 PROGRAMMABLE LOGIC CONTROLLERS

2-2-4

Builds on the Control Fundamentals course by introducing more advanced topics in logic control as implemented by Programmable Logic Controllers. Use of PC based simulator using Rockwell Automation LogixPRO language (used on Allen Bradley PLC's) to introduce math functions, logic and bit shift instructions, compare and jump instructions, subroutine functions and sequencer instructions. In addition to a PC based simulator, labs will include wiring of PLC's with input devices. A field trip to a local industry using PLC's will be accomplished. **Prerequisite:** * All ITC Courses (Industrial Technology Technical Core)

ITI 2064 FEEDBACK CONTROLLERS

2-2-4

This course builds on the Control Fundamentals course by introducing more information about Proportional Integral Derivative (PID) controllers. The mathematical basis of PID controllers is taught. Control loops such as cascade, ratio and feedforward created by combining two or more simple control loops are explained. Hands-on learning is enhanced by use of a PC based simulator to model and analyze the concepts introduced in the text used for the course. Several control loop analysis and tuning methods are taught. A field trip to a local industry using multiple-loop feedback controls will be accomplished. **Prerequisite:** *All ITC Courses (Industrial Technology Technical Core)

ITI 2073 ROBOTICS

1-2-3

Introduces the field of intelligent mechanisms, i.e., industrial robots. Teaches microcomputer control of robots. Robotics programming language taught by hands-on laboratory experiments with real industrial robots. **Prerequisite:** *All ITC Courses (Industrial Technology Technical Core)

INDUSTRIAL TECHNOLOGY – AAS MECHANICAL TECHNOLOGY FOCUS

ITM 2013 ELECTRICITY FOR MECHANICAL TECHNOLOGY

2-1-3

Designed specifically for mechanical technologists. Introduces the principles of DC electricity to include voltage, current and resistance and AC electricity to include capacitance and inductance. Series and parallel circuits analyzed mathematically and in laboratory experiments. Special emphasis on AC electricity as installed in industrial facilities. Instruction on use of digital multimeter and oscilloscope. **Prerequisite:** *All ITC Courses (Industrial Technology Technical Core)

ITM 2024 FLUID POWER

2-2-4

A study of the theory of the operations of fluid power (hydraulics and pneumatics) as well as repair of component parts. Realistic laboratory trainer used to build hydraulic and pneumatic experiments. **Prerequisite:** *All ITC Courses (Industrial Technology Technical Core)

ITM 2034 HVAC – BASIC

2-2-4

A study of heating, ventilation and air-conditioning that emphasizes the scientific fundamentals (thermodynamics, fluid mechanics and heat transfer) of HVAC systems. Includes lab work using a basic refrigeration system trainer, actual residential HVAC equipment and a compressor-fault simulator. **Prerequisite:** *All ITC Courses (Industrial Technology Technical Core)

ITM 2044 HVAC – INTERMEDIATE**2-2-4**

Continuation of HVAC-Basic with an emphasis HVAC systems used in industrial facilities such as refrigerators, freezers, building automation systems, hydronic systems and boiler systems. The course uses several specialized trainers employing actual components from industrial HVAC systems. **Prerequisites:** *All ITC Courses (Industrial Technology Technical Core); ITM 2033 - HVAC - Basic

ITM 2054 INDUSTRIAL TECHNOLOGY WELDING I**1-3-4**

The beginning welding course for Industrial Technology students in the AAS degree program. It provides students with an overview of welding career opportunities. Classroom presentations consist of metallurgy, welding theory and electrical principles specific to welding. IMT 2054 is designed to focus on the welding skills needed as a maintenance technologist in an industrial environment. Students learn to set up, adjust, and troubleshoot welding equipment. Students gain hands-on experience with basic Oxygen/Fuel welding, Shielded Metal Arc Welding (SMAW), Gas Metal Arc Welding (GMAW), and Gas Tungsten Arc Welding (GTAW) in the American Welding Society 1G (flat) position on mild steel. The following welded joint designs are taught and practiced: outside corner, lap, butt and "T". IMT 1103 requires student to wear several items of personal protection equipment. Shop procedures and safety rules are explained, constantly emphasized and STRICTLY enforced. **Prerequisite:** NONE

ITM 2064 INDUSTRIAL TECHNOLOGY WELDING II**1-3-4**

The follow-up welding course to ITM 2054 in the Industrial Technology AAS degree program. It builds on the three welding processes covered in IMT 1103 and strengthens the welding skills needed for a maintenance technologist in an industrial environment. Students participate in classroom study as well as practice in application of Shielded Metal Arc Welding (SMAW), Gas Metal Arc Welding (GMAW), and Gas Tungsten Arc Welding (GTAW) in the American Welding Society 2G (horizontal) position, 3G (vertical) position, and 4G (overhead) position. The following welded joint designs are practiced: outside corner, lap, butt and "T". IMT 2064 requires student to wear several items of personal protection equipment. Shop procedures and safety rules are explained, constantly emphasized and STRICTLY enforced. **Prerequisite:** IMT2054 - Industrial Technology Welding 1.

INDUSTRIAL TECHNOLOGY – AAS ELECTRICAL TECHNOLOGY FOCUS**ITE 2014 DC ELECTRICITY****2-2-4**

Introduces the principles of DC electricity to include voltage, current and resistance. Engineering notation and use of metric prefixes taught. Algebraic analysis of series and parallel circuits. Lab experiments teach use of a digital multimeter to test components and analyze circuits. **Prerequisite:** *All ITC Courses (Industrial Technology Technical Core)

ITE 2024 AC ELECTRICITY**2-2-4**

Introduces the principles of AC electricity to include capacitance and inductance. Series and parallel AC circuits analyzed mathematically and in laboratory experiments. Additional instruction on use of digital multimeters. Instruction in the use of the oscilloscope. **Prerequisites:** *All ITC Courses (Industrial Technology Technical Core); ITE 2014 - DC Electricity

ITE 2034 ELECTRIC MOTOR CONTROL**1-3-4**

Provides theory and hands-on experience with electric motor controls. Topics include single and three-phase AC and DC motors, motor control circuits, wiring practices, control hardware, safe work practices, troubleshooting skills and use of specialized electrical tools. Lab experiments will also include variable speed drives and AC inverter duty motors. **Prerequisites:** * All ITC Courses (Industrial Technology Technical Core); ITM 2013 - Electricity for Mechanical Technology or ITE 2014 - DC Electricity; **Corequisite:** ITE 2024 - AC Electricity

ITE 2044 INDUSTRIAL ELECTRICITY**3-1-4**

Building on concepts taught in ITE 2014 DC Electricity and ITE AC Electricity, this course introduces power distribution in industrial and residential environments; industrial and residential wiring methods; and single and three phase circuits. Includes an introduction to the National Electric Code. Laboratory experiments reinforce topics introduced in class. **Prerequisites:** *All ITC Courses (Industrial Technology Technical Core); IET 2014 - DC Electricity; **Corequisite:** ITE 2024 - AC Electricity

***The ITC Courses (Industrial Technology Technical Core) are listed beginning on page 127.**

INDUSTRIAL TECHNOLOGY – HEATING, VENTILATION, AIR CONDITIONING (HVAC) CERTIFICATE OF PROFICIENCY**ICH 1004 HVAC FUNDAMENTALS****2-2-4**

This course is designed to explore a wide range of residential HVAC equipment. Course content includes: thermodynamic and heat transfer concepts, basic energy and power definitions, and scientific terminology related to HVAC. It goes on to introduce through classroom and lab exposure the equipment used in residential HVAC systems. The laboratory for this course uses actual residential equipment as well as professional-grade tools used by practicing HVAC technicians. Finally, the course covers safety considerations for the HVAC workplace. **Corequisite:** ICH 1034 (CD and AC Electricity for HVAC)

ICH 1013 HVAC DRAWINGS AND MANUAL J LOAD CALCULATION**3-0-3**

This course will present information on the drawings used in the residential HVAC world (e.g., floor plans, air distribution diagrams, mechanical installation drawings, electrical schematic and interconnect drawings, mechanical equipment drawings, etc.). After students are introduced to the drawings containing HVAC information, the ways residential constructing relates to the specification and sizing of residential HVAC equipment will be covered. Finally, with a foundation build on the information contained in HVAC drawings, residential construction topics taught in ICH 1004 (HVAC Fundamentals), this course will train students to perform a "Manual J" load calculation both manually and with an approved computer program. **Prerequisite:** ICH 1004 (HVAC Fundamentals).

ICH 1033 INTRODUCTION TO SHEET METAL**1-2-3**

This class will provide students with basic knowledge and practice with tools and equipment found in a residential metal shop. Pressure drop and velocity calculations necessary for duct design are covered. This laboratory intensive course provides students with considerable "hands-on" practice with professional-grade tools found in a sheet metal shop. **Prerequisite:** None

ICH 1034 DC AND AC ELECTRICITY FOR HVAC**2-2-4**

This course introduces the principles of direct current (DC) electricity to include voltage, current and resistance. Engineering notation and use of metric prefixes are taught. The course goes on to introduce alternating current (AC) electricity principles of capacitance, inductance and transformers. Series and parallel principles circuits are analyzed mathematically and in laboratory experiments. Instruction and practice are provided on use of the digital multimeter and oscilloscope. **Corequisite:** MTH 0003 (Beginning Algebra) or equivalent test scores.

ICH 1043 HVAC CONTROLS TROUBLESHOOTING**1-2-3**

This course provides specialized training in both classroom and laboratory settings. Electrical component control malfunctions create most maintenance problem on residential HVAC equipment. To troubleshoot residential HVAC controls requires knowledge of AC electrical principles, HVAC drawing and basic principles of refrigeration. With this foundation, specialized training in control components such as relays, transformers, pressure and temperature instrumentation and wiring is needed to effectively troubleshoot HVAC controls. **Prerequisite:** ICH 1004 (HVAC Fundamentals). **Corequisite:** ICH 1013 (HVAC Drawings and Manual J Load Calculation).

INDUSTRIAL TECHNOLOGY – WELDING CERTIFICATE OF PROFICIENCY**ICW 1008 CERTIFICATE OF PROFICIENCY WELDING I****1-7-8**

ICW 1008 is the beginning welding course for the UACCB Certificate of Proficiency in welding. It provides students an overview of welding career opportunities. More specifically, ICW 1008 is structured for students interested in employment as a production welder or in a fabrication or repair shop. Classroom presentations consist of metallurgy, welding theory and electrical principles specific to welding. Students gain considerable hands-on experience with basic Oxygen/Fuel welding, Shielded Metal Arc Welding (SMAW), Glass Metal Arc Welding (GMAW), and Gas Tungsten Arc Welding (STAW) in the American Welding Society 1G (flat position) on mild steel. The following welded joint designs are taught and practiced: outside corner, lap, butt and "T". This course requires students to wear several items of personal protection equipment. Shop procedures and safety rules are explained, constantly emphasized and STRICTLY enforced.

ICW 1010 CERTIFICATE OF PROFICIENCY WELDING II**1-9-10**

ICW 1010 is the follow-up welding course to ICW 1008 in the UACCB Certificate of Proficiency in welding. It prepares students for entry level positions as a production welder in structural steel, thin alloy, and /or fabrication shop welding. It builds on the three welding processes covered in ICW 1008. Students participate in classroom study as well as intensive practical application of Shielded Metal Arc Welding (SMAW), Gas Metal Arc Welding (GMAW), and Gas Tungsten Arc Welding (STAW) in the American Welding Society 2G (horizontal), 3G (vertical), and 4G (overhead) positions. The following welded joint designs are practiced: outside corner, lap, butt and "T". ICW 1010 requires students to wear several items of personal protection equipment. Shop procedure and safety rules are explained, constantly emphasized and STRICTLY enforced. **Prerequisite:** ICW 1008 (Certificate of Proficiency Welding I)

MEDICAL OFFICE MANAGEMENT**MOM 1013 INTRO TO HEALTH CARE SYSTEMS****3-0-3**

Examines the administration and structure of health care delivery in the United States. The course also provides information regarding the health care system development and discusses organizational patterns, facilities, health care personnel, and the economic, political, and environmental influences that affect the health care system. Fall only.

MOM 2013 LEGAL CONCEPTS IN HEALTH CARE**3-0-3**

Provides an overview of the principles of law as applied to health care. The course gives consideration to the importance of medical records as legal documents, to the legal aspects of health care organizations, to the release of information, and to consents and authorizations. Spring only.

MOM 2023 MEDICAL DIAGNOSIS CODING AND BILLING**3-0-3**

Develops a working knowledge of general code matching and diagnosis assignments used in hospitals, clinics, and insurance offices for health-care industry. Emphasis is placed on purpose of coding, definitions of key terms, accurate application of coding principles and an overview of the impact of prospective reimbursement on the function of coding; principles of classification. Familiarization with standard coding references is provided (CPT, ICD-9). Spring only. **Recommended corequisite:** OFA 1053 (Medical Terminology).

MOM 2033 MEDICAL OUTPATIENT CODING AND BILLING**3-0-3**

This course is designed to develop a basic knowledge of how to apply the coding rules to bill for patient services. In addition, a variety of payment systems will be presented – DRG, APC, RUGS. Fall only. **Prerequisite:** MOM 2023 (Medical Diagnosis Coding and Billing).

MATHEMATICS**MTH 0003 BEGINNING ALGEBRA****3-0-3**

An introduction to algebra, problem solving, operations with real numbers, ratio, proportion, linear equations, and systems of linear equations. Enrollment is based on placement test scores. (Credit not applicable toward a degree or certificate.)

MTH 0013 INTERMEDIATE ALGEBRA**3-0-3**

This course covers proportion and rational expressions, techniques for solving various equations and inequalities, factoring techniques, synthetic division, methods for writing equations of lines and other functions, applications, radicals and rational exponents, quadratic functions, and the algebra of functions. **Prerequisite:** Grade of C or better in MTH 0003 (Beginning Algebra); or Enhanced ACT math score of 17-18; or an ASSET score of 37 or above in Intermediate Algebra; or a Compass score of 46 or above in Intermediate Algebra.

MTH 1013 TRIGONOMETRY**3-0-3**

This course covers right triangle trigonometry applications, including the laws of sines and cosines, radian measure and applications, trigonometric functions of real numbers, graphs of trigonometric functions, trigonometric identities and equations, polar coordinates, complex numbers in polar (trigonometric) form. A calculator with trigonometric functions is required. **Prerequisite:** Grade of C or better in MTH 0013 (Intermediate Algebra); or an enhanced ACT math score of 19 or above; or an ASSET score of 43 or above in Intermediate Algebra; or a Compass score of 66 or above in Intermediate Algebra.

MTH 1023 COLLEGE ALGEBRA**3-0-3**

This course presents quadratic, absolute value, polynomial, rational, exponential, and logarithmic functions and their graphs. It also includes a study of inequalities, system of equations, and matrices (graphing calculator required). **Prerequisite:** Grade of C or better in MTH 0013 (Intermediate Algebra); or an Enhanced ACT math score of 19 or above; or an ASSET score of 43 or above in Intermediate Algebra; or a Compass score of 66 or above in Intermediate Algebra.

MTH 2003 SURVEY OF CALCULUS / BUSINESS CALCULUS**3-0-3**

Includes selected topics in elementary calculus and analytic geometry for students in business, agriculture, and social sciences. **Prerequisite:** Grade of C or better in MTH 1023 (College Algebra). Spring only.

MTH 2005 CALCULUS I, CALCULUS AND ANALYTIC GEOMETRY**5-0-5**

Covers the first 5 hours of 13 hours (a three-course sequence) in calculus designed to teach the fundamentals of differential and integral calculus needed in applications, including multivariate calculus. Topics include limits of functions, the derivative, applications of the derivative, the fundamental theorem of calculus, the definite integral, applications of the definite integral, the trigonometric, exponential, and logarithmic functions. **Prerequisite:** Grade of C or better in MTH 1023 (College Algebra) and MTH 1013 (Trigonometry) or consent of instructor. Fall only.

MTH 2015 CALCULUS II, CALCULUS AND ANALYTIC GEOMETRY**5-0-5**

The second 5 hours of 13 (a three-course sequence) in calculus designed to teach the fundamentals of differential and integral calculus, including multivariable functions. Topics include exponential and logarithmic functions, natural growth and decay, trigonometric and hyperbolic functions, polar coordinates, conic sections, infinite series. **Prerequisite:** Grade of C or better in MTH 2005 (Calculus I). Spring only.

MTH 2023 CALCULUS III, CALCULUS AND ANALYTIC GEOMETRY**3-0-3**

The last 3 hours of 13 (a three-course sequence) in calculus. The topic is multivariable calculus. **Prerequisite:** Grade of C or better in MTH 2015 (Calculus II).

MTH 2053 STATISTICS**3-0-3**

Covers descriptive and inferential statistical techniques and methods in life, physical, and social science. Topics include qualitative data analysis, frequency distributions, numerical methods, data dispersions, variance analysis, estimation theory, sampling distributions, discrete and continuous probability distributions, hypothesis testing, and confidence interval estimation. **Prerequisite:** Grade of C or better in MTH 1023 (College Algebra) or equivalent. (Cross listed as BUS 2053.)

MTH 2103 MATH I**3-0-3**

Focuses on sets, logic, and numbers with emphasis on the axiomatic development of the real numbers. **Prerequisite:** A grade 'C' or better in MTH 1023 (College Algebra). Fall only.

MTH 2113 MATH II**3-0-3**

Focuses on mathematical systems, elementary algebra, probability and statistics, and geometry with applications. **Prerequisite:** A grade 'C' or better in MTH 2103 (Math I). Spring only.

SMA --- SPECIAL TOPICS MATHEMATICS**3-0-3**

Designation used for courses of current interest in mathematics that are not included as a permanent part of our official course offerings. The title of the course will reflect the specific subject matter.

RN PROGRAM

NRN 1506 NURSING THEORY I

5-0-6

This course provides the student with knowledge of fundamental nursing care theory/concepts that are essential to meeting fundamental physiologic and psychologic nursing care needs of clients of all ages. Fall only. **Corequisite:** NRN 1513 (Nursing Practicum I)

NRN 1513 NURSING PRACTICUM I

0-9-3

This clinical laboratory course focuses on the application of knowledge and skills that are essential to meeting fundamental physiologic and psychologic nursing care needs of clients of all ages in the long-term and acute care settings. Fall only. **Corequisite:** NRN 1506 (Nursing Theory I)

NRN 2208 NURSING THEORY II

8-0-8

The attitudes, knowledge, skills and behaviors of the associate degree registered nurse are emphasized. Utilizing an integrated approach and building upon the foundation of fundamental nursing knowledge and skills, the core values are interwoven throughout the course. Topics include, but are not limited to the following areas: developmental theories across the life span, care of the dying patient, communication process, fluid and electrolytes and acid-base imbalances, hematology, alterations in musculoskeletal (child & adult) immunology (disorders of protection), selected psychosocial nursing topics, Antepartum, Intrapartum, Postpartum, Newborn, and childhood infections. **Corequisite:** NRN 2214 (Nursing Practicum II). Spring only.

NRN 2214 NURSING PRACTICUM II

0-12-4

Clinical laboratory course focusing on the application of the knowledge, attitudes, skills and behaviors of the associate degree registered nurse that are identified in NRN 2208 (Nursing Theory II). The student will demonstrate the role of the associate degree registered nurse in caring for patients with uncomplicated health care problems in various health care settings. Nursing process/critical thinking, IV therapy principles, physical assessment, community nursing topics, critical thinking activities and modules, APA guidelines, and leadership and management are included. **Corequisite:** NRN 2208 (Nursing Theory II). Spring only. **The student must successfully pass the clinical component of Nursing Practicum I in order to progress in the program.**

NRN 2303 NURSING THEORY III

6-0-3

The student utilizes knowledge of the nursing process in caring for patients with a variety of unmet needs. Utilizing an integrated approach and building upon nursing knowledge and skills, the core values are interwoven throughout the course. Areas covered include, but are not limited to: basic concepts of critical care, overview of emergency nursing, care of the adult and pediatric patient with gastrointestinal/hepatic disorders, OB complications, and patients with selected psychosocial nursing problems. **Prerequisite:** NRN 2208 (Nursing Theory II). **Corequisite:** NRN 2313 Nursing Practicum III). Summer only.

NRN 2313 NURSING PRACTICUM III

0-18-3

Clinical laboratory course focusing on the application of associate degree registered nurse knowledge, attitudes, skills, and behaviors that are identified in Nursing Theory III. The purpose of the clinical experience is to expand upon the role of Associate Degree Registered Nurse with emphasis on leadership and management. The student will care for patients with selected health care problems in various health care settings. Other topics covered include but are not limited to: genetics, cloning, cultural and community health nursing. **Prerequisite:** NRN 2214 (Nursing Practicum II). **Corequisite:** NRN 2303 (Nursing Theory III). Summer only. **The student must successfully pass the clinical component of Nursing Practicum II in order to progress in the program.**

NRN 2408 NURSING THEORY IV

8-0-8

This course continues to build upon the knowledge, attitudes, skills, and behaviors of the associate degree registered nurse. Utilizing an integrated approach and building upon nursing knowledge and skills, the core values are interwoven throughout the course. Areas covered include, but are not limited to the nursing care of patients of all ages experiencing progressively more complex disorders. Topics include but are not limited to nursing care of the patient experiencing: cardiovascular disorders, neurological disorders, oncology, endocrine disorders, GI hepatic disorders, pre and post-operative teaching, respiratory disorders, genitourinary disorders, skin integrity and wound management, burns, high risk obstetrical situations and reproductive health, and selective psychosocial nursing topics. **Corequisites:** NRN 2414 (Nursing Practicum II) and NRN 2501(Nursing Seminars). **Prerequisite:** successful completion of NRN 2303 (Nursing Theory III). Fall only.

NRN 2414 NURSING PRACTICUM IV

0-12-4

This is a clinical laboratory course focusing upon the associate degree nurse's knowledge, attitudes, skills, and behaviors emphasized in Nursing Theory IV. The student will demonstrate the role of the associate degree registered nurse in caring for patients with complicated health care problems in various health care settings. The learner applies knowledge obtained in Nursing Theory I, II, III, and IV to patients in the clinical practice. Other topics include: leadership/management, and community service learning. **Corequisite:** NRN 2408 (Nursing Theory IV) and NRN 2501 (Nursing Seminars). **Prerequisite:** successful completion of NRN 2313 (Nursing Practicum III). Fall only. **The student must successfully pass the clinical component of Nursing Practicum IV in order to pass the overall course, including the preceptorship.**

NRN 2501-095 NURSING SEMINARS**1-0-1**

Nursing Seminars is a one-semester hour **online course** in which the history of nursing, as well as present and future trends of nursing, are discussed. Topics include but are not limited to: types of nursing delivery modalities; the image and portrayal in media of the registered nurse; disaster planning; professional accountability with ethics and competency, as well as professional boundaries in nursing practice discussed, professional organizations, current federal and state patient care guidelines, and bullying in the nursing profession. This online course is required for both online and traditional tracks of the program. **Corequisites:** NRN 2408(Nursing Theory IV) and NRN 2414 (Nursing Practicum IV). **Prerequisites:** NRN 2208 (Nursing Theory II), NRN 2214 (Nursing Practicum II), NRN 2303 (Nursing Theory III), and NRN 2313 (Nursing Practicum III). Fall only.

PRACTICAL NURSING**NUR 1119 NURSING I****16-15-19**

The knowledge, skills and behaviors of the practical nurse are introduced. The focus of the classroom and practicum course content is on the principles of fundamental/basic nursing care for patients of all ages. Direct patient care skills, pharmacology, IV therapy, and nutrition are emphasized. Legal and ethical issues impacting the practical nurse are also discussed. Fall only. **Students must earn a grade of C or higher in both theory and practicum components to progress in the program.**

NUR 1218 NURSING II**12-24-18**

This course is a continuation of the study and care of patients of all ages. Classroom and practicum course content focuses on providing care for patients experiencing commonly occurring medical/surgical, obstetric, pediatric, geriatric, and psychiatric health care problems. The role of the practical nurse in administering and monitoring medication is emphasized. Spring only. **Prerequisites:** NUR 1119 (Nursing I). **Students must earn a grade of C or higher in both theory and practicum components in order to progress in the program.**

NUR 1308 NURSING III**8-24-8**

This course is a continuation of the study and care of patients of all ages. The focus of classroom and practicum course content is on coordinating practical nursing care for small groups of patients in the geriatric, long-term care setting. Students will also complete the required number of hours working with an approved preceptor. **Prerequisites:** NUR 1218 (Nursing II). Summer only. **Students must earn a grade of C or higher in both theory and practicum components in order to successfully complete the program.**

NURSING**NAH 1507 HEALTH SKILLS I****4-2-7**

A study of concepts that serve as the foundation for health professions courses. Topics include client handling and safety issues, health documentation and methods, and care of the client in a long term care facility. Principles of emergency care are presented. With successful completion of this course, the student will be eligible to apply for certification as a nursing assistant or first responder. CPR certification will also be obtained.

NAH 2003 NUTRITION**3-0-3**

Covers the fundamentals of normal and clinical nutrition. Information regarding clinical nutrition is organized according to an organ system/disease states approach. Topics such as fitness, consumer concerns, cancer and AIDS are included.

NAH 2013 HEALTH ASSESSMENT**3-0-3**

Provides learners with the opportunity to develop and practice health history taking and physical examination skills. History taking methodology, physical examination skills, health promotion techniques and clinical assessment tools are discussed. Age related assessment considerations and findings are reviewed. Upon successful completion of this course, students will be able to perform a comprehensive medical history and physical assessment. Spring only. **Prerequisite/Corequisite:** Current RN license, enrolled in the registered nursing program or instructor's permission.

NAH 2303 PHARMACOLOGY**3-0-3**

This three credit hour course will examine how the body handles drugs and the effects of various classes of drugs on the body, including sites and mechanisms of action, therapeutic and side effect, and toxicology. The pharmacologic knowledge will prepare the learner to function in the changing health care environment. Successful and safe clinical practice is built on understanding the concepts and principles of pharmacology. The concepts of pharmacology will guide drug use in clinical practice. The approach is to relate the physiologic and pathophysiologic factors of disease processes to drug mechanisms and subsequent care.

OFFICE ADMINISTRATION**OFA 1003 BEGINNING KEYBOARDING****3-0-3**

Provides students who have no previous training in typing with Beginning Keyboarding. Content includes correct techniques of typing, drills to develop speed and accuracy, letter writing, manuscripts, and tabulation. Students may need to spend some time in lab outside of class.

OFA 1013 ADVANCED KEYBOARDING**3-0-3**

Emphasis is on creating, formatting and customizing business documents. Students also strengthen their skills in production problems and increase speed and accuracy through drills. Students may need to spend some time in lab outside of class. Offered spring semester, even numbered years only. **Prerequisite:** OFA 1003 (Beginning Keyboarding).

OFA 1043 RECORDS MANAGEMENT**3-0-3**

Emphasizes the importance of record management, storage, retention, transfer, and disposition. Application of standard rules of alphabetic, numeric and geographic filing. Fall only.

OFA 1053 MEDICAL TERMINOLOGY**3-0-3**

This course will provide the framework needed for advancing to other medical/allied health courses as it offers an introduction to medical terminology through the analysis of word construction including prefix, suffix, word roots, and combining forms. The student will acquire an understanding of medical meanings applicable to structure, function, and diseases of the human body. Abbreviations and their appropriate usage are also introduced. Upon completion of this course, students will gain the knowledge and abilities to confidently tackle the most complicated of medical terms and use this ability throughout their educational experiences and health-related careers.

OFA 1063 WORD PROCESSING**3-0-3**

This course provides an advanced understanding of word processing software and terminology. Proper procedures to create documents suitable for coursework, professional purposes and personal use are demonstrated. Students may need to spend some time in lab outside of class. Spring only. Even numbered years only. **Prerequisite:** OFA 1003 (Beginning Keyboarding).

OFA 2033 ADMINISTRATIVE OFFICE PROCEDURES**3-0-3**

Emphasizes administrative practices and procedures used in today's business office by the professional administrative assistant. Topics include effective verbal and written communication, office technology, records and financial management, meetings and travel and the office environment. Spring only. **Prerequisite:** OFA 1003 (Beginning Keyboarding.)

PHYSICAL EDUCATION**PED 1003 CONCEPTS OF PHYSICAL ACTIVITY****1-2-3**

Students gain knowledge and appreciation of the importance of physical activity for lifelong health, wellness, and quality life. Opportunities are provided for psychomotor development.

PED 1013 PERSONAL AND COMMUNITY HEALTH**3-0-3**

This course is a consideration of the various conditions and factors affecting individual and community health. The course is designed to assist students in formulating their philosophies, attitudes, and understanding of behaviors that are necessary to establish healthy living practices.

SPE ---- SPECIAL TOPICS PHYSICAL EDUCATION**3-0-3**

Designation used for courses of current interest in physical education that are not included as a permanent part of our official course offerings. The title of the course will reflect the specific subject matter.

PHILOSOPHY**PHI 1003 INTRODUCTION TO PHILOSOPHY****3-0-3**

Students will explore the basic questions in philosophy to increase their ability to think for themselves and decide which answers to those questions they think are true and the most reasonable.

PHYSICAL SCIENCE**PHS 1001 PHYSICAL SCIENCE LAB****0-3-1**

A laboratory experience to support PHS 1003 (Physical Science). Laboratory meets three hours per week. **Prerequisite:** Grade of C or better in MTH 0013 (Intermediate Algebra); or an Enhanced ACT math score of 19 or above; or an ASSET score of 43 or above in Intermediate Algebra; or a Compass score of 66 or above in Intermediate Algebra. **Corequisite:** PHS 1003 (Physical Science).

PHS 1003 PHYSICAL SCIENCE**3-0-3**

This course presents an overview of essential topics from astronomy, physics, electricity, chemistry, geology and meteorology. Features biographies of some of the important contributors to advances in the physical sciences. (The course does not satisfy science certification for secondary school teachers; it is not accepted as a major requirement in any natural science field.) Lecture meets three hours per week. **Prerequisite:** Grade of C or better in MTH 0013 (Intermediate Algebra); or an Enhanced ACT math score of 19 or above; or an ASSET score of 43 or above in Intermediate Algebra; or a Compass score of 66 or above in Intermediate Algebra.

SSS ---- SPECIAL TOPICS SOCIAL SCIENCE**3-0-3**

Designation used for courses of current interest in the social sciences that are not included as a permanent part of our official course offerings. The title of the course will reflect the specific subject matter.

PHYSICS FOR HEALTH SCIENCES

PHS 2014 PHYSICS FOR HEALTH SCIENCES

3-3-4

This course is an algebra and trigonometry-based physics course designed to meet the physics requirements for health science majors. It is not recommended for physics or engineering majors. Topics include mechanics in one and two dimensions, fluids, thermodynamics, and mechanical waves and sound. Lab Component: Laboratory exercises will explore the concepts covered in lecture. Spring only. **Prerequisite:** A grade of "C" or better in MTH 1023 (College Algebra).

POLITICAL SCIENCE

POS 2103 UNITED STATES GOVERNMENT

3-0-3

A basic study of United States Government will provide students with an essential understanding of the principles, structure, processes, functions, limitations, and other related political activities of federal, state, and local government. Within this framework students will trace the historical and theoretical trends that inspired American democracy. Particular attention will also focus on the correlation between social problems and public policy. English Composition I strongly recommended.

PSYCHOLOGY

PSY 1003 GENERAL PSYCHOLOGY

3-0-3

This course provides a critical analysis of the basic principles of psychology. Students will encounter theories and research relating to motivation, learning, personality, emotion, stress, abnormal behavior, methods of therapy, biology, developmental psychology, and social psychology.

PSY 2013 HUMAN GROWTH AND DEVELOPMENT

3-0-3

This course covers the physical, cognitive, and emotional growth and development of the individual from conception to death, including the examination of empirical findings and major psychological methods and theories.

PSY 2023 ABNORMAL PSYCHOLOGY

3-0-3

This course introduces the study of abnormal behavior, including historical and present-day perspectives regarding abnormality. Other topics include the causal factors, symptoms, and treatments of various disorders. **Prerequisite:** PSY 1003 (General Psychology).

PSY 2033 PSYCHOLOGY OF ADJUSTMENT

3-0-3

Psychology of Adjustment involves the study of how people cope with the demands and challenges of everyday life. Topics such as personality, the self, stress management, intimate relationships, communications, and careers will be discussed in this course.

SOCIOLOGY

SOC 2003 PRINCIPLES OF SOCIOLOGY

3-0-3

Students gain an awareness of the relationship between individual experience and the wider society. This course promotes scientific examination of social institutions such as marriage, family, religion, education, health care, and political systems. Cultural assumptions regarding social stratification, gender, race, deviancy, and the environment are also discussed.

SOC 2013 SOCIAL PROBLEMS

3-0-3

Students will apply sociological concepts and methods to the analysis of current social problems in the United States, including family and community disorganization, delinquency and crime, mental illness, and intergroup relations.

SOC 2023 CULTURAL ANTHROPOLOGY

3-0-3

This course introduces the concept of culture and cultural processes. It examines perceptions of race, gender, and ethnicity and compares human adaptation across cultures and through time in terms of subsistence methods, social and political organization, economics, stratification, marriage and family structure, religion, kinship, and language.

SPANISH

SPA 1003 SPANISH I

3-0-3

Students will learn basic skills in listening to, speaking, reading, and writing beginning Spanish.

SPA 1013 SPANISH II

3-0-3

This course is a further development of skills practiced in SPAN 1003. **Prerequisite:** SPA 1003 (Spanish I) or permission of the instructor.

SPA 1023 SPANISH FOR HEALTH CARE PROFESSIONALS

3-0-3

This course is designed to introduce the basic language skills of conversation and comprehension but with a medical emphasis to enable the health care professional and patient to communicate. **Prerequisite:** College level placement in Reading or the completion of PRE 0303 (Reading Improvement) with a C or better.

SPA 2003 SPANISH III

3-0-3

This course focuses on an intermediate development of Spanish language skills. **Prerequisite:** SPA 1013 (Spanish II) or permission of the instructor.

SPA 2013 SPANISH IV

3-0-3

This course is a continuation of intermediate language skill development begun in SPAN 2003. **Prerequisite:** SPA 2003 (Spanish III) or permission of the instructor.

SPEECH

SPC 1003 ORAL COMMUNICATION

3-0-3

Students will improve their public speaking skills by expanding their awareness of the communication process and developing a better understanding of various contexts of communication.