Course Descriptions

**ACCOUNTING**

**ACCT 2003 PRINCIPLES OF ACCOUNTING I**  
*ACTS Equivalent Course Number = ACCT 2003*  
Prerequisites: BSTD 0613 and BSTD 0413 with a grade of “C” or better or appropriate placement test score. Basic principles of financial accounting theory with emphasis on sole proprietorships.

**ACCT 2103 PRINCIPLES OF ACCOUNTING II**  
*ACTS Equivalent Course Number = ACCT 2013*  

**ACCT 2113 COMPUTERIZED ACCOUNTING SYSTEMS**  
Prerequisite: one course in Accounting. Course designed to provide a realistic approach to computerized integrated accounting procedures. Consists of six major accounting systems commonly found in computerized accounting environments.

**ADMS 1003 INTRODUCTORY ACCOUNTING**  
Prerequisites: BSTD 0603 and BSTD 0314 with a grade of “C” or better or appropriate placement test score. The study of bookkeeping cycles of keeping journals, posting to ledger accounts, taking trial balances, preparing balance sheets and working papers, and preparing closing and adjusting entries. Covers commonly used journals, ledgers, and payroll registers as well as the basic tax forms required for small business firms. Recommended for students who have not completed high school bookkeeping before taking Accounting 2003.

**ADMS 1013 FUNDAMENTALS OF KEYBOARDING**  
Introduction to the touch system of keyboarding with emphasis on the proper technique and a thorough mastery of the keyboard.

**ADMS 1023 INTERMEDIATE KEYBOARDING**  
*ACTS Equivalent Course Number = BUSI 1103*  
Prerequisite: key 40 WPM. Continuation of ADMS 1013 or equivalent. Further study of the form and arrangement of the business letter, documents and reports. Frequency drills are designed to develop accuracy and speed.

**ADMS 2083 ADMINISTRATIVE TECHNOLOGY**  
Prerequisite CSCI 2143. Advanced concepts of office management and office procedures utilizing integration of previously learned computer applications. Students develop advanced administrative skills through advanced email functions, the integration of office applications, and using a variety of peripheral devices. Students will complete projects using the Microsoft Office suite that require critical thinking, problem solving, and advanced office procedures.

**ADMS 2703 PROFESSIONAL PROJECTS AND PORTFOLIO DESIGN**  
Prerequisites: ADMS 1023 and completion of 45 hours of the program. A course with emphasis on projects that require organizational skills and teamwork that prepares students for a smooth transition into the fast-paced business environment. Topics such as business attire, interpersonal skills, ethics, business
protocol, and problem solving are incorporated into the class. Students will develop individual professional portfolios that can be used in the job application process.

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<thead>
<tr>
<th>ART 1013 DRAWING I</th>
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<tbody>
<tr>
<td>A course designed to teach the techniques of drawing in pencil, charcoal, and ink. Provides instruction in the application of art principles to drawing. Four hours per week in studio.</td>
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<tr>
<th>ART 1113 DRAWING II</th>
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<tr>
<td>Prerequisite: Pass Art 1013 with a “C” or better. Advanced problems in drawing, composition, drawing with colored media, and experimental techniques. Four hours per week in studio.</td>
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<tr>
<th>ART 2003 ART APPRECIATION</th>
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<tr>
<td>ACTS Equivalent Course Number = ARTA 1003 (For non-art majors)</td>
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<tr>
<td>Prerequisite: Pass BSTD 0613 with a “C” or better or equivalent score on placement test. Course to develop enjoyment of art and understanding of art’s relevance to society through a non-studio study of visual design and subsequent analysis of architecture, sculpture, and painting.</td>
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<tr>
<th>ART 2073 PAINTING I</th>
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<tr>
<td>Prerequisite: Pass ART 1013 with a “C” or better. This course provides preliminary experience in painting, using transparent water soluble paints and other media related to pictorial composition.</td>
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<tr>
<th>ART 2093 PAINTING II</th>
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<tr>
<td>Prerequisite: Pass ART 2073 with a “C” or higher. Designed for students to become acquainted with advanced painting methods using water soluble paints. Composition and personal style are emphasized.</td>
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<tr>
<th>AUTOMOTIVE SERVICE TECHNOLOGY</th>
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<tr>
<td>AST1304/L STEERING AND SUSPENSIONS/LAB</td>
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<tr>
<td>Prerequisite: AST 1504 or consent of the instructor. This course covers diagnosis and repair of steering and suspension systems. Units of instruction will include steering systems, suspension systems, alignment procedures, and wheel/tire service. (2 hours lecture, 3 hours lab)</td>
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| AST1404/L AUTOMOTIVE ELECTRONICS I/LAB |
| Prerequisite: AST 1504 or consent of the instructor. This course introduces electrical theory including voltage, current, resistance, and power. DC and AC circuits are covered along with series, parallel, and series-parallel circuits. The proper use of electrical test equipment is emphasized. (2 hours lecture, 3 hours lab) |

| AST 1504/L ENGINE REPAIR/LAB |
| This course includes safety, tools, service information, and precision measurement. Also covered are engine disassembly/assembly procedures, engine diagnosis, lubrication and cooling systems. (2 hours lecture, 3 hours lab) |

| AST 1604/L ENGINE PERFORMANCE I/ LAB |
| Prerequisite: AST 1504 or consent of the instructor. This course is an introduction to ignition, fuel, intake, and exhaust systems. Exhaust emissions and emission control devices are also covered. Diagnostics is emphasized. (2 hours lecture, 3 hours lab) |
AST 1004/L AUTOMOTIVE FUNDAMENTALS
The course emphasis is on the operation and servicing of major automobile systems. Proper use and care of hand tools, shop equipment, and automotive test equipment is also covered. Safety is stressed. (2 hours lecture, 3 hours lab)

AST 1104/L MANUAL DRIVE TRAIN AND AXLES/LAB
Manual transmissions, transaxles, clutches and transfer cases are covered in this course. Also covered are u-joints, drive shafts and differential repair and diagnosis. (2 hours lecture, 3 hours lab)

AST 1204/L BRAKE SYSTEMS/LAB
Prerequisite: AST 1504 or consent of the instructor. This course covers the diagnosis and repair of brake system hydraulics, drum brake systems, disc brake systems and power assist brake systems. Anti-lock brake system diagnosis and repair are included. (2 hours lecture, 3 hours lab)

AST 1614/L ENGINE PERFORMANCE II/LAB
Prerequisite: AST 1604 or consent of the instructor. The course covers various fuel injection systems, electronic ignition systems, and onboard computer engine controls. Proper diagnostics is stressed. Lab experiments enhance the instruction. (2 hours lecture, 3 hours lab)

AST 1704/L HEATING AND AIR CONDITIONING/LAB
Prerequisite: AST 1504 or consent of the instructor. This course covers diagnosis and repair of Air Conditioning Systems. Refrigeration and heating and cooling systems are also covered. Automatic control systems, refrigerant recovery, recycling and handling are also covered. (2 hours lecture, 3 hours lab)

AST 1804/L AUTOMATIC TRANSMISSION/TRANSAXLES/LAB
Prerequisite: AST 1504 or consent of the instructor. This course covers diagnosis and repair of automatic transmission/transaxles. Included are transmission maintenance, adjustments, and scan tool diagnostics. Off-vehicle diagnosis and repair are also covered. (2 hours lecture, 3 hours lab)

AST 1902 ASE TEST PREPARATION
This course is designed to assist the student in preparing for the National institute for Automotive Excellence (ASE) tests. The course will include pretests, practice tests, individual instruction, and classroom media presentations. (2 hours lecture)

AST 2404/L AUTOMOTIVE ELECTRONICS II/LAB
Prerequisite: AST 1404 or consent of the instructor. This course is an in-depth study of battery, starting, charging, and electrical accessory systems. Proper diagnostics and safety is stressed. Lab experiments enhance the instruction. (2 hours lecture, 3 hours lab)

AST 2601 DIRECTED STUDY
The student and the instructor will agree upon a project that will enhance the student’s automotive knowledge. The project is to be completed by the student in the classroom, lab, or on the job. (1 hour, 30 contact hours) May be repeated at the instructor’s discretion.

BSTD 0211 COMP I LAB.
The Accelerated Learning Program (ALP) Composition I Lab provides an option for students to bypass English II. New students who do not require reading remediation but do need writing remediation may enroll in ALP Comp I (BSTD 0613). English I students who pass the Nelson Denny Reading Test with a 13.1 and make an A in English I may enroll in ALP Comp I. Students enrolled in this lab are also enrolled
in the corresponding Comp I (ENGL 1113) course. Successful completers will receive credit for both English II and Comp I. ALP students will work on the regular Comp I assignments. The focus of the lab is improving writing skills for greater success in both Comp I and future course work. Tasks will include activities, reflections, and workshops in lab. Students will also work on essays in groups and individually. Prerequisites: 13.1 or better on the Nelson Denny Reading Test OR an ACT reading score of 19 OR a COMPASS reading score of 83 AND a passing writing score in English I OR an ACT English score of 17 OR a COMPASS writing score of 61. COURSE PLACEMENT TEST SCORES - Writing Skills - ACT Scores ASSET Scores COMPASS Scores Course Placement: 14 or below, 35 or below, 41 or below – BSTD-0603 English I: 15-16, 36-40, 42-60 - BSTD-0613 English II: 17-18, 41-44, 61-79 – BSTD-0211/ENGL 1113 ALP Lab and Composition I; 19+ 45+ 80+ - ENGL 1113 Composition I. Students who take the ALP version of Comp I also must take BSTD 0211.

BSTD 0313 FUNDAMENTALS OF ARITHMETIC
An arithmetic review for students who need to improve their computational skills. Topics covered include whole numbers, fractions, decimals, ratio and proportions, percent, measurement, and basic geometry. (3 hours lecture, 2 hours lab)

BSTD 0413 ELEMENTARY ALGEBRA
Prerequisite: Pass BSTD 0313 with a grade of “C” or better or make the required score on one of the placement tests. This is a pre-college, beginning algebra course for students with no algebra background or with a very weak algebra background. The purpose is to prepare students for BSTD 0513, intermediate Algebra. Topics include the real number system, exponential notation, solving and applying first degree equations and inequalities in one variable, solving formulas, graphing linear equations on the coordinate system, laws of exponents, polynomial operations, and factoring polynomials. (3 hours lecture, 2 hours lab)

BSTD 0513 INTERMEDIATE ALGEBRA
Prerequisite: Pass BSTD 0413 with a grade of “C” or better or make the required score on one of the placement tests. This is a pre-college course for students who have had some algebra but need further development of their skills before they take MATH 1023, College Algebra. Topics include, factoring polynomials, using factoring to solve equations together with applications, rational expressions and equations, functions, linear functions, variation, systems of equations with applications, compound inequalities, absolute value equations and inequalities, exponents and radicals, radical equations, and quadratic equations. (3 hours lecture, 2 hours lab).

BSTD 0603 ENGLISH I
Prerequisite: Make an appropriate score on the placement test. English I focuses on improving reading comprehension, reading speed, and vocabulary, while working on basic grammar and paragraph writing

BSTD 0613 ENGLISH II
Prerequisite: Make an appropriate score on the placement test or pass ENGL 0603 with a “C” or better and a 10.1 or above on the Nelson Denny Reading test. English II focuses on improving reading comprehension, reading speed, vocabulary, and essay writing.

**BIOLOGY**

BIOL 1004/L FUNDAMENTALS OF BIOLOGY/LAB
ACTS Equivalent Course Number = BIOL 1004
Prerequisite: Pass BSTD 0613, and BSTD 0413 with a grade of “C” or better or make an appropriate score on the placement test. Morphological, physiological, and taxonomic survey of the plant and animal kingdom with emphasis on basic biological principles. Three hours lecture and two hours laboratory.
BIOL 1024/L ZOOLOGY/LAB
*ACTS Equivalent Course Number = BIOL 1054*
Prerequisites: Pass BSTD 0613, and BSTD 0413 with a grade of “C” or better or make an appropriate score on the placement test. The emphasis will be on general principles of zoology. The course will survey the major animal phyla: phylogenetic relationships, morphology, physiology and natural history. Three hours lecture and two hours lab.

BIOL 1034/L GENERAL BOTANY/LAB
*ACTS Equivalent Course Number = BIOL 1034*
Prerequisites: Pass BSTD 0613, and BSTD 0413 with a grade of “C” or better or make an appropriate score on the placement test. The emphasis will be on general principles of botany. Material will cover form, structure, function, and reproduction of nonvascular and vascular plants. Three hours lecture and two hours lab.

BIOL 1114/L BIOLOGY FOR MAJORS
*ACTS Equivalent Course Number = BIOL 1014*
Prerequisites: Pass BSTD 0613, and BSTD 0413 with a grade of “C” or better or make an appropriate score on the placement test. A study of the principles of biology. Provides the foundation for other advanced courses in the biological sciences. Includes an in-depth study of fundamental biological concepts including the scientific process, classification, structure and functions, cellular metabolism, evolution, and genetics. Appropriate for biology and health science majors, as well as general education. Lab required. Three hours lecture and two hours lab.

BIOL 2074/L, HUMAN ANATOMY AND PHYSIOLOGY II/LAB
*ACTS Equivalent Course Number = BIOL 2414*
Prerequisite: Pass BIOL 2064/l with a grade of “C” or better. Continuation of BIOL 2064, with emphasis on the structure and functions of systems in endocrinology, hematology, circulatory, lymphatic, digestive, urinary, and respiratory systems. The course also covers growth and development of the human body, and developments in genetics. Three hours lecture and two hours laboratory.

BIOL 2304/L KINESIOLOGY/LAB
Prerequisites: Pass BIOL 2064/l with a grade of “C” or better. Study of musculoskeletal anatomy, posture, and movement of the human body. An understanding of the muscular system with regard to origin, insertion, and action of muscles, serves as the basis by which to study planes and axis of movements, the range and quality of functional movements, the actions of levers within the human body, and how muscular contraction affects movements, posture, and gait. Three hours lecture and two hours laboratory.

BIOL 2003, NUTRITION AND DIET
Study of the fundamental principles of human nutrition and diet with emphasis on carbohydrates, lipids, proteins, vitamins, minerals, and energy in normal nutrition as well as in disease conditions. Three hours lecture.

BIOL 2064/L, HUMAN ANATOMY AND PHYSIOLOGY I/LAB
*ACTS Equivalent Course Number = BIOL 2404*
Prerequisites: Pass BSTD 0613, and BSTD 0413 with a grade of “C” or better or make an appropriate score on the placement test. This course provides instruction related to the study of the structure and functions of the human body. Lecture emphasizes concepts underlying upright walking and how humans respond to their environment. Laboratory work includes histology, morphology of the skeleton, dissections, and some physiologic experimentation. Three hours lecture and two hours laboratory.
BUSINESS ADMINISTRATION

BUS 1003 THE AMERICAN ENTERPRISE SYSTEM
ACTS Equivalent Course Number = BUSI 1013
Prerequisite: Pass BSTD 0613 with a grade of “C” or higher or make an appropriate score on the placement test. Basic course in the fundamentals of business. An overview to develop an intelligent understanding of the realistic problems and practices of business. Studies of the business organization and its environment, including marketing, economics, management, and accounting.

BUS 2013 BUSINESS STATISTICS
ACTS Equivalent Course Number = BUSI 2103
Prerequisite: MATH 1023 and BSTD 0613 or appropriate placement test score. An introduction to applied statistics including measures of central tendency and dispersion, probability, sampling, estimation, hypothesis testing, and analysis of variance.

BUS 2043 CUSTOMER SERVICE AND SUPPORT
Prerequisites-none. This course is designed to help students develop outstanding customer service skills. Students will learn how to interact with (communicating in person), resolve conflicts, maintain records, understand importance customer scarification/retention, and actively participate as a member of a team. Topics address general principles of customer service including the use of technology, systems, skills, knowledge, attitudes, and behaviors pertinent to the professional development of the student.

BUS 2063 BUSINESS COMMUNICATIONS
Prerequisites: ENGL 1113 and ADMS 1013. The composition and evaluation of psychologically sound business letters in correct and forceful English. Emphasis is placed on solving business problems encountered in writing effective business letters.

BUS 2074 PRINCIPLES OF REAL ESTATE
Basic concepts of marketing, ownership, and legal principles involved in real estate management to help prepare students for the state real estate salesperson examination.

BUS 2133 REAL ESTATE APPRAISAL
Prerequisite: BUS 2074. Course covering principles and techniques of residential real estate appraising.

BUS 2233 PERSONNEL SUPERVISION
A course designed for persons training for first level supervisory positions with emphasis on human relations, motivation, and effective uses of human resources.

BUS 2713 REAL-WORLD BUSINESS PLANNING
Prerequisites: BSTD 0413, BSTD 0613. This course allows students the opportunity to work in a student run business within the college while learning the basics of business planning. Students will have classroom lessons on recognizing and evaluating business opportunities, analyzing consumer markets, marketing, selling techniques, customer service, business financing, fixed and variable costs, and cash flow. Students will be required to work in the student run business 8 hours per week during a 15 week semester or 120 hours during semesters of less than 15 weeks. Much of the work would be production or sales needed to learn the business, though some planning of operations and analysis of systems would be involved. (1 hour lecture 2 hours lab)

BUS 2723 REAL-WORLD BUSINESS OPERATIONS
Prerequisite: BUS 2713 or permission of instructor. This course allows students the opportunity to work in a student run business within the college while learning the basics of business operations. Students will
have classroom lessons on managing employees, leadership, scheduling operations, selecting vendors, adjusting product mix, branding, legal issues in small business, growth and building on success, and the components of a business plan. Students will be required to work in the student run business 8 hours per week during a 15 week semester or 120 hours during semesters of less than 15 weeks. Some of the work would be production or sales needed to meet business production schedules. Students in this course will be required to take on management responsibilities within the business, including planning production and sales staffing, as well as supervising other student workers. (1 hour lecture 2 hours lab)

BUS 2903 SPECIAL TOPICS IN BUSINESS
A survey of various topics within the field of business to meet specialized needs.

BUSINESS LAW

BLAW 2013 LEGAL ENVIRONMENT OF BUSINESS I
Prerequisites: ENGL 1123 or ENGL 2043. This course is a discussion of the legal environment, contracts, and dealings with goods, commercial paper, debts, and creditors. This is the introductory course in law for all business students. This course is designed for students interested in entrepreneurship and designed for students seeking the AAS degree in Business.

CHEMISTRY

CHEM 1004/L FUNDAMENTALS OF CHEMISTRY/LAB
*ACTS Equivalent Course Number = CHEM 1004*
Prerequisites: BSTD 0613 with a “C” or better, BSTD 0513 or TECH 1003 with a grade of “C” or better (concurrent enrollment is acceptable for TECH 1003). This is a survey course introducing Chemistry as it applies to the real world for students in chemical/industrial process technology and/or general education. The course incorporates critical thinking to explore, analyze, and evaluate concepts such as the scientific method, measurement, states of matter, atomic structure, the periodic table, chemical properties, chemical bonding, chemical reactions, acids and bases, solutions, and other chemistry-related topics. This course does not fulfill the chemistry requirement for science majors or Allied health programs. Three hours lecture and two hours laboratory.

CHEM 1014/L CHEMISTRY I FOR HEALTH-RELATED PROFESSIONS/LAB
*ACTS Equivalent Course Number = CHEM 1214*
Prerequisites: BSTD 0613, BSTD 0513 with a grade of “C” or better, or make an appropriate score on the placement test. This is an algebra-based college chemistry course. This course provides a chemistry foundation for work in health-related areas, process technology, and other careers needing fundamental chemistry concepts. The lecture component incorporates critical thinking to explore, analyze and evaluate inorganic chemistry including, atomic and molecular structure, bonding, nomenclature, reactions, stoichiometry, states of matter, solutions, energy, heat, reaction rates, reaction equilibria, acids and bases, nuclear chemistry, and fundamentals of organic and biochemistry. The laboratory component incorporates critical thinking to investigate, analyze, and evaluate measurement, mass, volume, density and specific gravity, physical and chemical changes, flame tests and atomic structure, classification of chemical reactions, mole ratios in chemical equations, temperature, endothermic and exothermic reactions, gas laws, solution formation and characteristics, spectrophotometry, testing for anions and cations, reaction rates and equilibrium, acids, bases, pH and buffers, acid-base titration, identification of functional groups in unknowns, carboxylic acid/ester analysis, and aspirin synthesis. Three hours lecture and two hours laboratory, stoichiometry, reactions, gases, thermochemistry, atomic and molecular structures, periodicity, bonding, nuclear chemistry, and fundamental concepts of intermolecular forces and solutions. Lab is required. Three hours lecture and two hours laboratory.
CHEM 1124/L CHEMISTRY II FOR SCIENCE MAJORS/LAB
ACTS Equivalent Course Number = CHEM 1424
Prerequisites: MATH 1023 or its equivalent with a grade of “C” or better, CHEM 1024/L with a grade of “C” or better. Course is a continuation of CHEM 1024/L incorporating critical thinking with a greater emphasis regarding intermolecular forces, solutions, kinetics, equilibrium, acid/base theory, thermodynamics, and electrochemistry. Lab is required. Three hours lecture and two hours laboratory.

CHEM 1024/L CHEMISTRY I FOR SCIENCE MAJORS/LAB
ACTS Equivalent Course Number = CHEM 1414
Prerequisites: BSTD 0613, BSTD 0513 with a grade of “C” or better, or make an appropriate score on the placement test, and one full year of high school chemistry or its equivalent completed within the last five years with a grade of “C” or better. Students who have had no high school chemistry are advised to take CHEM 1014 or its equivalent. This is the first course in a two-course sequence of algebra-based chemistry designed for science majors and pre-professionals. Course incorporates critical thinking to explore, analyze, and evaluate theoretical and quantitative chemistry principles, nomenclature, the mole,

COMMUNICATIONS

COMM 1103 INTRODUCTION TO FILM
No prerequisite. Super 8mm film and digital production, including concept, principles, basic editing, projection and the use of non-synchronous sound. Evaluation and critique of student’s films. Each student required to complete three films.

COMM 1013 SCRIPTWRITING
Prerequisite: ENGL 1113 with a “C” or higher. Students participating in this class will be armed with the skills to write for the media. This course also provides practice in preparing marketable scripts for local stations where beginning jobs are generally available. Students will sharpen specific copywriting and scriptwriting skills using realistic situations. A word processing program is used in this course.

COMM 1203 AMERICAN CINEMA
No prerequisite. Through American Cinema, students will acquire a working knowledge of American film history from the silent era to the present day. In addition, they will learn to recognize and use basic technical and critical vocabulary of motion pictures, understand how the technology of the cinema relates to film art, gain a fundamental background in the economic structure of the film industry, question their own role as passive spectators, increase their ability to watch films actively and critically, and enhance their ability to think, speak, and write critically in an increasingly visual and technological culture.

COMM 1023 MEDIA ETHICS
Prerequisite: ENGL 1113 with a “C” or higher. This course will give students a firm grounding in ethical principles as they apply to reporting, confirming the proper use of sources, confirming the validity of information, and the business of news. Students will also develop their own personal guidelines for what is acceptable behavior for someone employed as an electronic journalist.

COMM 1103 SONGWRITING
This course is designed to teach students how to compose original music for varied use (e.g., performance, film soundtracks, commercial use, etc.)

COMM 1303 AUDIO PRODUCTION
No prerequisite. This course is divided into four major areas: principles, equipment, pre-production, and post-production. Students will also be introduced to acoustics, system wiring, and various types of recording equipment.
COMM 1403 EDITING AND POST-PRODUCTION
No prerequisite. This course is designed for film to include studio and field camera techniques. It includes opportunities in developing, directing, and producing live and taped video programming.

COMM 1503 LIGHTING
No Prerequisite. Students will learn basic three-point lighting to full set lighting design. Included in discussion are types of lighting, fixtures, gels, and lighting techniques.

COMM 1603 DIGITAL PHOTOGRAPHY
No prerequisite. This is an introductory course in digital photography which approaches the medium as an art form and unique means of human communications and a technical skill. The student is introduced to basic mechanical principles of the camera. The student learns how photography has influenced perception and communication. The student is provided with techniques for responding to the content and structure of photographs. An adjustable digital SLR camera is required.

COMM 2303 FILM PRE-PRODUCTION
Prerequisite or co-requisite: COMM 2403. This course is designed to lay the ground work for production of video or film. It includes scouting out locations, using a script or storyboard, planning, and preparing a checklist for equipment, props, and actors needed to video/film the project.

COMM 2403 FILM PRODUCTION AND DESIGN
Prerequisite: consent of the instructor. The theory and practice of designing a film production; including script analysis, budgeting, equipment deployment and other logistics for preparing a well-coordinated production shoot.

COMM 2503 INTERNSHIP.
Prerequisite of the instructor. This course is a laboratory course of supervised rehearsal and technical work on community production culminating in performance. It provides the students with practical experience and training.

COMM 2513 Internship II
Prerequisite: consent of the instructor. This is an additional laboratory course of supervised rehearsal and technical work on community productions, culminating in performance and designed to hone skills developed in a previous internship. It provides students with practical experience and training.

COMM 2523 Internship III
Prerequisite: consent of the instructor. This is an additional laboratory course of supervised rehearsal and technical work on community productions, culminating in performance and designed to hone skills developed in a previous internship. It provides students with practical experience and training.

COMM 2603 SOUND DESIGN FOR FILM
No prerequisite. Students will study theory and apply practical experience in sound for film and video. This course will explore the technical and aesthetic aspects of sound as it relates to the moving image. Midi, SMPTE, sync, Foley, sound effects recording, ADR, looping, and music for video will all be covered.

COMM 2203 DOCUMENTARY FILM-MAKING
Prerequisite or co-requisite: COMM 2103 or by instructor’s consent. This course explores techniques necessary to direct and produce a documentary film. The main focus is on directing, producing, preproduction, and interview for documentary production, students will also examine different
philosophies of ethics and research as it pertains to the preproduction and production of non-fiction feature.

**COMPUTER SCIENCE**

**CSCI 1003 COMPUTERS AND INFORMATION PROCESSING**

*ACTS Equivalent Course Number = CPSI 1003*

Prerequisite: Pass BSTD 0603 with a grade of “C” or higher or make an appropriate score on the placement test. Learn basic computer concepts and software applications with an emphasis on personal computing. Topics include hardware, software, data processing, the internet and World Wide Web, and current trends in personal computing. File management, word processing, spreadsheet, database, and presentation applications are introduced.

**CSCI 1102 LAN CABLING**

Prerequisites: BSTD 0613. This course presents information and installation competencies in local Area Networking. Standards and regulations in both copper and fiber installations will be covered. The students will, through demonstration, group labs, and hands-on activities, learn to assemble, test, and troubleshoot LAN wiring used in home, small business, and large computer networks.

**CSCI 1103 COBOL PROGRAMMING**

Introduction to computer programming using the Common Business oriented language including presentation and analysis of programming applications and techniques for business, industry, and government.

**CSCI 1112 IT ESSENTIALS I A**

Prerequisites: BSTD 0613, CSCI 1203 Students learn the functionality of hardware and software components as well as suggested best practices in maintenance and safety issues. The students, through hands-on activities and labs, learn to assemble and configure a computer, install operating systems and software, and troubleshoot hardware and software problems. In addition, this course helps students prepare for the CompTIA A+ certification.

**CSCI 1113 SOCIAL MEDIA**

Social media (such as Twitter, Facebook, blogging, etc.) are technologies that enable individuals to create, collaborate, and share messages with audiences of all sizes. Students will explore the possibilities and limitations of social media and will have hands-on experience with several forms of social media technology. Those who complete this course will know how to use social media productively, and have a framework for understanding and evaluating new tools and platforms. This course will highlight new effective strategies and applications of these platforms in this course you will be required to participate in social networks, forums, blogs, wikis, micro-blogs, and more.

**CSCI 1114 IT ESSENTIALS I B**

Prerequisite: CSCI 1112. A continuation of CSCI 112-IT Essentials I A. Students learn the functionality of hardware and software components as well as suggested best practices in maintenance and safety issues. The students, through hands-on activities and labs, learn to assemble and configure a computer, install operating systems and software, and troubleshoot hardware and software problems. In addition, this course helps students prepare for the CompTIA A+ certification.

**CSCI 1203 PC CONCEPTS**

Prerequisites: BSTD 0053, BSTD 0603, BSTD 0314. Co-requisites: BSTD 0613. This course will be an introductory course into the inter-workings of the Microcomputer. There will be emphasis on terms and acronyms associated with the microcomputer and networking field. Review of MS Word, MS Excel, MS
PowerPoint, MS Visio, and the use of Blackboard/Moodle and Email, as they relate to information technology, and the study of the microcomputer and networking field.

**CSCI 1263 WINDOWS OPERATING SYSTEM NETWORK ADMINISTRATION**
Prerequisites: Fundamental keyboarding skills, pass BSTD 0613 with a grade of “C” or higher or equivalent score on the placement test. Covers basics of Windows operating system from installing and upgrading to enabling remote support. Administrative issues such as setting up password requirements, securing shared resources, and managing user accounts are covered. Note: Contact instructor for details concerning which version of Windows is being utilized.

**CSCI 1274 WINDOWS SERVER/ NETWORK ADMINISTRATION**
Prerequisites: Fundamental keyboarding skills, pass BSTD 06 with a grade of “C” or better or equivalent score on the placement test. This course is designed to give students the knowledge and experience to install, configure, and administer the current Microsoft Windows Server as a network operating system. Note: Contact instructor for details concerning which version of Windows is being utilized.

**CSCI 1304 NETWORK + CERTIFICATION REVIEW**
A review of the concepts, terms, and bodies of knowledge making up the Network + certification exam. Introduction to the key networking installations, configurations, and administration tasks involved in administering Windows and Linux operating systems.

**CSCI 1323 INTRO TO NETWORKING**
This course has been designed with the novice networking student in mind and covers all types of networks from the ground up. Designed to provide a solid foundation in essential concepts and methods, this introduction requires no previous experience, covering all of the critical knowledge and skills information technology professionals need to work with network operating systems in a network administration environment. This highly practical course features a variety of projects, with activities integrated closely with core material to facilitate understanding, reinforce learning, and build essential skills at every step Students also learn practical design methods for home, small business, and large enterprise networks.

**CSCI 1425 LAN INSTALLATION AND REPAIR**
Prerequisites: CSCI 1405, CSCI 1102. A continuation of CSCI 1405—Introduction to Networking. Students learn the functionality of network media and signaling used on each different type of media, functionality of Protocols, OSI protocol Model, and the TCP/IP protocol stack. Through hands-on activities and labs, students learn to analyze network architectures, upgrade, and design, install LAN Networks, and troubleshoot hardware and software problems with the LAN. This course assists students in preparing for the CompTIA N+ certification examination.

**CSCI 1433 INTRO TO WEB DESIGN**
Prerequisites: Basic Computer and keyboarding Skills. An introduction to the design, creation, and maintenance of web pages and websites. Students learn how to critically evaluate website quality, learn how to create and maintain quality web pages, learn about web design standards, and learn to create and manipulate images. The courses progresses from introductory work on web design to a culminating project in which students design and develop websites.

**CSCI 1513 COMPUTER CAREERS AND PROFESSIONAL DEVELOPMENT**
This course will allow students to explore various computer-related careers and professions, as well as address students’ skills, interests, and personalities as related to individual career requirements and expectations. The course will also address job search skills and techniques and characteristics that employer’s desire employees to possess (e.g. integrity, good work ethics, etc.).
CSCI 1703 INTRODUCTION TO LINUX
Presents the foundational principles and skills of the Linux operating system. Students will learn how to install, maintain, and troubleshoot Linux from a system-level experiential perspective.

CSCI 1713 ALTERNATIVE OPERATING SYSTEMS
This course is an introduction to the operating systems Linux and MAC OS. This is taught from a Power user/IT technician perspective. The MAC operating system is integration between the hardware and the software. This class examines how to establish system preferences for hardware, internet, network and desktop. Students will use the Safari browser and the terminal and perform routine maintenance. The course will use Linux operation system from the command line. Topics will include: remote login (SSH), file system navigation, file commands, editors, compilation, execution, I/O redirection, searching, processes, privacy, permissions, networking, and bash scripting.

CSCI 1813 PRINCIPLES OF INFORMATION ASSURANCE
This course is intended to provide a basic survey of the importance and understanding of IT security awareness and data confidentiality. This security course walks users through various aspects of information Security in a very broad, easy to understand way and explains to them the value of securing data, both for themselves and the organization. The course will also present best practices in access control and password policies. The class will discuss legislation, local, state and federal privacy policies and liability of individuals and institutions related to data confidentiality and integrity. The cost will introduce risk management, security policies, and common threats and countermeasures.

CSCI 1903 DESKTOP PUBLISHING I
Introduces the student to the basics of desktop publishing. Course will include terminology, graphics, line draw, columns, tables and charts, report production, and layout techniques.

CSCI 1923 INTRODUCTION TO ADOBE PHOTOSHOP
Prerequisite: Pass BSTD 0613 with a grade of “C” or higher or make an appropriate score on the placement test. Students will be introduced to the fundamental and intermediate aspects of Adobe Photoshop. From a post-production perspective, students will learn how to take an existing photographic image and produce a final quality image through manipulation and editing.

CSCI 2023 VISUAL BASIC FOR WINDOWS
Prerequisite: CSCI 1003. An introduction to programming using Microsoft’s Visual Basic.Net programming language with emphasis on business and scientific applications.

CSCI 2043 WEB DESIGN
Students will learn and apply advanced aspects of Web design and production using the Dreamweaver program. Students will be required to create a polished web site for their class project.

CSCI 2053 JAVA SCRIPT
Prerequisite: CSCI 2803 HTML/CSS XML or permission of instructor. An introduction to the JavaScript language, which is used to develop dynamic web pages with features, such as forms, slide shows, and mouse-over effects. This class builds upon the HTML/CSS/XM course. Student will need a basic understanding of HTML/CSS before attempting this course. This is a hands-on course, with the majority of work being done on a PC computer. Students will learn the basic of JavaScript, its used and security issues, as well as good design principles pertaining to accessibility, and code functionality across multiple platforms and devices, including the exploration of mobile app development.
CSCI 2113 DESKTOP PUBLISHING II
Prerequisites: Pass BSTD 0613 with a grade of “C” or higher or make an appropriate score on the placement test and pass CSCI 1903 with a C or higher. Introduces the student to advanced features of desktop publishing software, culminating in the layout, and design of complex multi-page documents. This is a hands-on course, which is designed to help the student use advanced enhancing techniques to produce long and/or short complex documents.

CSCI 2124/L INTRODUCTION TO JAVA/ LAB
An introduction to the fundamentals of the JAVA programming language. Provides a conceptual understanding of object oriented programming. Students will learn how to create classes, objects, and applications using the language. Topics also include JAVA language fundamentals and the Java language API (application programming interface).

CSCI 2143 MICROCOMPUTERS: BUSINESS APPLICATIONS
Prerequisite: BSTD 0603 and basic typing skills. An introduction to microcomputers and applications software used in business. The course covers the use and operation of microcomputers and various types of popular “business” software including spreadsheets and database management systems.

CSCI 2183 INTRODUCTION TO COMPUTER GRAPHICS
Using Adobe Illustrator software, students will learn how to creatively design through software functions that include drawing, painting, editing, coloring, and layering. Basic and intermediate techniques will be covered and advanced techniques introduced.

CSCI 2193 ADVANCED WEB DESIGN
Prerequisite: CSCI 2043. Advanced concepts of web design and production will be used to produce professional websites. Topics include templates, style sheets, layers, interactivity, animating timelines, find and replace, and extensions.

CSCI 2203 DATABASE
Prerequisite: CSCI 2143 or equivalent skills. Through the use of Microsoft Access, the student will learn core and various expert-level functions through database creation, manipulation, and output processes. This is primarily a hands-on course.

CSCI 2223 EXCEL
Prerequisite CSCI 2143 or equivalent skills. Through the use of Microsoft Excel, the student will learn core and expert level functions using personal and business applications. The class emphasizes the features and techniques to develop solutions to spreadsheet problems including data creation, manipulation, analysis, and output processes. This course covers the topics that will help prepare the student for the Microsoft user Specialist Excel test.

CSCI 2351/2352/2353 SPECIAL TOPICS IN INFORMATION TECHNOLOGY
A survey course of a selected topic or related topics in information technology intended to provide the student with exposure to new technology or a special knowledge/skills set. Credit will vary depending upon length of study requirements.

CSCI 2361/2362/2363 SPECIAL TOPICS IN INFORMATION TECHNOLOGY/ ADVANCED
A continuation of CSCI 2351/2352/2353

CSCI 2383 LINUX SERVER
Prerequisite: CSCI 1323 introduction to Networking and CSCI 2373 Windows Server. In this course students will configure the client/server environment using UNIX/Linux system, manage user accounts,
manage system software in UNIX/Linux, and manage files systems in UNIX/Linux. Also, students will apply security practices to UNIX/Linux systems, and improve systems performance.

**CSCI 2433 BUSINESS CONTINUITY**
Prerequisite: CSC Cisco 1 and CSCI 2373 Windows Server
The threat to systems is one that is continuously changing and evolving. It is not sufficient that a System Administrator harden a system based upon the threats that are currently known. The goal of the business continuity course is to help the organization take preemptive measures against malicious attacks by attacking the system; all the while staying within legal limits to ensure that systems are adequately protected, administrators must probe networks and assess the security posture for vulnerabilities and exposure.

**CSCI 2603 CISCO I**
Prerequisite: CSCI 1323 introduction to Networking
This course introduces the architecture, structure, functions, components, and models of the internet and other computer networks. The principles and structure of IP addressing and the fundamentals of Ethernet concepts, media, and operations are introduced to provide a foundation for the curriculum. By the end of the course, students will be able to build simple LANs, perform basic configurations for routers and switches, and implement IP addressing schemes. This course is 2 hours lecture, 2 hours lab, 4 hour time commitment each week.

**CSCI 2703 PROFESSIONAL PROJECTS AND PORTFOLIO DESIGN**
Prerequisite: Completion of 45 hours of the program. Students complete projects that require organizational skills and teamwork to prepare them for a smooth transition into the fast-paced business environment. Class incorporates such topics as appropriate business attire, professional etiquette, interpersonal skills, ethics, business protocol, and problem solving. Students develop individual professional portfolios they may use in applying for jobs.

**CSCI 2803 HTML/CSS/XML**
Prerequisite: CSCI 1433 intro to Web Design or higher or permission of instructor. An introduction to the basic languages used to develop web pages: Hypertext Markup language (HTML), Cascading Style Sheets (CSS), and Extensible Markup Language (XML). This hands-on course, with the majority of work being done on a PC computer. Students will learn the basics of these languages, as well as good design principles pertaining to accessibility, browsers and code functionality across multiple platforms and devices.

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**Cosmetology**

**COS 1002 INTRODUCTION TO COSMETOLOGY**
This course covers the history of cosmetology, basic life skills for developing a professional image and business. In addition opportunities will be available to practice positive communication skills and general organizational skills relevant to good business practice. (2, 0)

**COS 1003 INTRODUCTION TO HAIRCUTTING/HAIRSTYLING 1**
Prerequisite: COS 1002. This course is a basic overview of infection control and safety; the properties of the hair and scalp; shampooing, rinsing, conditioning; introduces the basic principles of hair design, haircutting, wet hairstyling, thermal hairstyling, thermal pressing, braiding and extensions. The student will practice these techniques on mannequins in a lab setting. (1, 2)

**COS 1102 INTRODUCTION TO CHEMICAL SERVICES 1**
Prerequisite: COS 1003. This course in applied chemistry covers the basic chemistry of hair and skin; introduces the basic techniques of permanent waving, chemical hair relaxing, hair coloring and
decolorizing; and provides practice in techniques of soft curl permanent waving. The student will practice these techniques on mannequins in a lab setting. (1, 1)

**COS 1103 PRACTICUM 1**
Prerequisite: COS 1003. The student will have opportunity to practice the basic techniques of haircutting, hairstyling, manicuring and pedicuring in a lab setting. (1, 2) Should be taken with COS 1202.

**COS 1202 INTRODUCTION TO SPECIALTY SERVICES 1**
Prerequisite: COS 1002. This course provides a basic overview of the use of electricity in specialty services; a study of basic anatomy and physiology associated with face, skin, and hair; basic concepts of skincare histology, skincare facials, cosmetics application; a study of nail structure and growth; an overview of nail structure and growth; and appropriate manicuring and pedicuring techniques. The student will have opportunity to practice the techniques of manicure and pedicure in a lab setting. (1, 1) Must be taken with COS 1103.

**COS 1203 HAIRCUTTING/HAIRSTYLING 2**
This course provides practice in advanced techniques for infection control and safety; the properties of the hair and scalp; techniques of shampooing, rinsing, conditioning; provides extensive practice in more advanced principles of hair design, haircutting, wet hairstyling, thermal hairstyling, thermal pressing, braiding and extensions. The student will practice these techniques on mannequins in a lab setting. (1, 2)

**COS 1213 PRACTICUM 2**
Prerequisites: COS 1203, COS 1102. The student will have opportunity to practice advanced techniques of haircutting, hairstyling, manicuring and pedicuring on mannequins and peers in a lab setting. (1, 2) Must be taken with COS 1502.

**COS 1302 SCHOOL TO WORK TRANSITION**
Prerequisite: COS 1003. this class explores the complexity and concepts inherit in running a salon business; developing the characteristics of a good employee and seeking employment; developing and maintaining a good resume and portfolio; practicing the basic techniques of good business plan development. The student will have opportunity to practice the skills acquired in this class through role playing activities and scenarios, interviews with and presentations from representatives of the cosmetology business; and will compile a portfolio suitable for quality resume construction. (1, 1)

**COS 1402 CHEMICAL SERVICES 2**
Prerequisite: COS 1102. This course provides extensive training in advanced chemistry processes; permanent waving techniques, chemical relaxing techniques and hair coloring/de-coloring techniques. The student will practice these techniques on mannequins in a lab setting. (1, 1)

**COS 1502 SPECIALTY SERVICES 2**
Prerequisite: COS 1202. This course provides instruction and practice in advanced techniques associated with cosmetic, corrective and theatrical applications; temporary hair removal; application of artificial nails; and specialty manicures and pedicures. The student will practice these techniques in a lab setting. (1, 1) Must be taken with COS 1213.

**COS 2003 PRACTICUM 3**
Prerequisites: COS 1103, COS 1102, COS 1202, COS 1203, COS 1402, COS 1502. The student will practice skills in haircutting, hairstyling, manicuring and pedicuring on mannequins and peers to develop mastery. (1, 2)
COS 2004 PRACTICUM 4
Prerequisites: COS 1103, COS 1102, COS 1202, COS 1203, COS 1402, COS 1502. The student will develop advanced skills mastery through peers and assigned paying patrons in the school lab. (1, 3)

COS 2102 PRACTICUM 5:
Prerequisites: COS 1103, COS 1102, COS 1202, COS 1203, COS 1402, COS 1502. The student will continue developing advanced mastery of cosmetology skills through work assignments with peers and assigned paying patrons in the school lab. (1, 1)

COS 2104 PRACTICUM 6
Prerequisites: COS 1103, COS 1102, COS 1202, COS 1203, COS 1402, COS 1502. In preparation for the State Cosmetology licensing exam the student will continue practicing cosmetology skills through work assignments with peers and assigned paying patrons in the school lab. (1, 3)

COS 2202 PRACTICUM 7
Prerequisites: COS 1103, COS 1102, COS 1202, COS 1203, COS 1402, COS 1502. In preparation for the State Cosmetology licensing exam, the student will continue practice of cosmetology skills through work assignments with peers and assigned paying patrons in the school lab. (1, 1)

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Criminal Justice Administration

CJ 1103 INTRODUCTION TO CRIMINAL JUSTICE
*ACTS Equivalent Course Number = CRJU 1023*
Examination of the history and philosophy of the administration of justice in America. The systems and sub-systems, their roles and interrelationships, theories of crime, punishment, and rehabilitation; and the ethics, education, and training of professionals will be studied.

CJ 2103 POLICE ADMINISTRATION
Prerequisite: CJ 1103 or equivalent. Introductory course in the role of police in administration of criminal justice and crime control. An overview of police administrative, line, and auxiliary functions.

CJ 2303 RULES OF CRIMINAL EVIDENCE AND PROCEDURES
Prerequisite: CJ 1103 or equivalent. Introduction to the act of investigation. Attention to the importance of information, interrogation, and instrumentation in the solution and preparation of criminal cases for trial.

CJ 2403 CRIMINAL INVESTIGATION TECHNIQUES
Prerequisite: CJ 1103 or equivalent. Survey of general procedures, concepts and practical application of the mechanics of criminal investigation. Emphasis on elements of crime and fact-finding.

CJ 2503 ARKANSAS CRIMINAL LAW
A study of the criminal statutory provisions of the State of Arkansas. Study will include interpretation of the statutory criminal law as set forth by the State and U.S. Supreme Court.

CJ 2603 ARKANSAS JUVENILE LAW AND PROCEDURES
ECE 1003 FOUNDATIONS OF EARLY CHILDHOOD EDUCATION
Prerequisite: Admission to the ECE program. This course is designed to acquaint students with the historical roles of families in their children’s development. Students become familiar with theories supporting early childhood education and learn how to develop an effective program designed uniquely for children birth to eight. Students also obtain knowledge of state and federal laws pertaining to the care and education of young children. A minimum of 4 observation hours required. This course is part of the Birth through Pre-kindergarten teaching credential core.

ECE 1023 ENVIRONMENTS FOR YOUNG CHILDREN
Prerequisite: Admission to the ECE program. 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. A minimum of 6 observation hours are required.

ECE 1033 PRACTICUM I
Prerequisites: ECE 1003: ECE 1023: EDUC 2033. This course provides opportunities for students to apply the acquired theory and skills in a child care setting. Students are required to complete a minimum of 80 clock hours of hands-on experience. (Employment or volunteer hours in a licensed child development program is required). This course is designed to assist students seeking to apply for CDA credential from Washington D.C. to meet the requirements of 120 hours of professional development. Additional requirements for the CDA Credential may be found at www.cdacouncil.org.

ECE 1043 ETHICS AND PROFESSIONALISM
Prerequisites: Admission to the Early Childhood Education Program and EDUC 2033. This course provides an opportunity to explore and develop essential skills in ethics and professionalism as it relates to employment in the field of Early Childhood Education. Topics such as state laws and regulations, NAEYC Code of Ethical Conduct, Developmentally Appropriate Practice, Standards of Quality, professional commitment to quality, professional development, advocacy and ethics, as well as employment skills are essential components of the curriculum for this class. Students are required to perform a minimum of 4 observation/participation hours.

ECTC 2703 PRESCHOOL CURRICULUM
Prerequisites: BSTD 0613, ECE 1003, EDUC 2033, ECE 1023. 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 3–5 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. Information on the Quality Approval process and Accreditation for Early Childhood settings in Arkansas, now called Better Beginnings, and the Arkansas Frameworks Handbook for Three and Four Year Olds is also covered. A minimum of 4 observation hours are required. This course is part of the Birth through Pre-kindergarten teaching Credential core.

ECTC 2303 LITERACY AND LANGUAGE ARTS FOR EARLY CHILDHOOD
Prerequisites: BSTD 0613, EDUC 2033. 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
literacy: speaking, listening, reading, and writing. A minimum of 4 observation hours are required. This course is part of the Birth through Pre-kindergarten teaching Credential core.

ECTC 2803 INFANT/TODDLER CURRICULUM
Prerequisites: BSTD 0613, EDUC 2033. 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) 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. Information on the Quality Approval process and Accreditation for Early Childhood settings in Arkansas, now called Better Beginnings, and Arkansas Frameworks Handbook for Infants and toddlers is also covered. A minimum of 4 observation hours are required. This course is part of the Birth through Pre-kindergarten teaching Credential core.

ECTC 2403 MATH AND SCIENCE FOR PRESCHOOL CHILDREN
Prerequisite: BSTD 0613. This course familiarizes students 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 create activities: plan and practice developmentally appropriate experiences that would meet recognized standards (NAEYC, NCTM, etc.) for these areas. A minimum of 4 observation hours are required. This course is part of the Birth through Pre-kindergarten teaching credential core.

ECE 2053 ADMINISTRATION OF PRESCHOOL PROGRAMS
Prerequisite: ECE Technical Certificate. This course covers topics pertinent to the current or future childcare director/owner. Students plan all aspects of opening a childcare center, daily operations, budgeting, personnel management and state licensing regulations. A minimum of 4 observation hours are required.

ECTC 2903 FUTURE PERSPECTIVES OF EARLY CHILDHOOD EDUCATION
Prerequisite: ECTC 2703, ECTC 2803. 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 Ethical 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. This course is part of the Birth through Pre-kindergarten teaching credential core.

ECTC 2503 CHILD GUIDANCE
Prerequisite: BSTD 0613, EDUC 2033. This course links principles of child development to appropriate methods of guiding children’s behavior for children birth through pre-kindergarten, including children with special needs. A minimum of 4 observation hours are required. Techniques for managing groups of children in various childcare settings are practiced. This course is part of the Birth through Pre-kindergarten teaching credential core.

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**ECONOMICS**

ECON 2003 MACROECONOMIC PRINCIPLES
*ACTS Equivalent Course Number = ECON 2103*
Prerequisites: BSTD 0613 and BSTD 0413 with a grade of “C” or better or appropriate placement test score. Introduces the basic economic concepts including the market system, national income, fiscal policy, monetary policy, and the Federal Reserve System. Emphasis is placed on connecting the concepts to real world situations.
ECON 2103 MICROECONOMIC PRINCIPLES
ACTS Equivalent Course Number = ECON 2203
Prerequisites: BSTD 0613 and BSTD 0413 with a grade of “C” or better or appropriate placement test score. Introduction to microeconomics and resource allocation of comparative economic systems. Covers consumer choice, firm production and pricing in different market structures, the public sector, and externalities.

EDUC 2033 CHILD GROWTH AND DEVELOPMENT
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 from within and outside of the United States. Students are introduced to methods 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 a minimum of 10 hours of observation. Students must complete the required observation assignments with verification of hours to receive a passing grade. This course is part of the Birth through Pre-kindergarten teaching credential core.

EDUC 2003 INTRODUCTION TO EDUCATION
A course designed to acquaint the student with the American system of public education. Includes an examination of the social forces shaping the development of education in America, the various units in the educational system, educational history and philosophy, survey and analysis of the psychological and sociological principles underlying the public school program, and professional ethics. Also includes a 24-30 hour block of supervised experience in a school working with a certified teacher for the purpose of exposure and orientation to the objectives, techniques, and methods employed in classrooms in the teaching/learning process. Course to be taken in the freshman or sophomore year.

EDUC 2023 SURVEY OF EXCEPTIONAL CHILDREN
Prerequisites: BSTD 0613. This course consists of a brief overview of many common physical, emotional, social, and mental problems children may experience, and how preschool teachers may adapt lessons plans, provide emotional and social support, and meet other needs such children and their families may have. Special education needs are discussed along with the biological, social, and psychological elements of specific handicaps. A minimum of 10 observation hours are required.

EDUC 2031 CHILD GROWTH AND DEVELOPMENT AR 187 UPDATE
This course is required for education students who, prior to fall 2009, completed Child Growth and Development (Birth through Primary ages) with a grade of “C” or higher. The content of this course updates previous course material to include the State law 187 requirement of a child study project as a necessary component of the course content. Students will complete 10 hours of observation at a licensed childcare center and complete observation and child study writing assignments. The class must be passed with a grade of “C” or higher.

EDUC 2053 DEVELOPMENT AND LEARNING
Prerequisites: None. This course is the study of environmental and hereditary effects on the cognitive, affective, psychomotor and sociolinguistic development from conception through adulthood (conception through death) with diverse cultural backgrounds from within and outside of the United States. Additional emphasis is on learning theories across the lifespan. Students are introduced to methods to observe and evaluate development. Practical application of theory is provided through a variety of hands-on experiences and a minimum of 10 hours of out of class observation. Students must complete the required observation assignments with verification of hours to receive a passing grade.
EDUC 2103 CHILD AND ADOLESCENT LITERATURE
Prerequisite: BSTD 0613. This course is designed to provide introductory content on children’s and young adolescent literature. The material will help pre-service teachers select, read, and evaluate children’s and young adolescent literature and integrate them into their classrooms. The course also introduces concepts about literature including elements of fiction, fictional literary forms, non-fiction, and aspects of book formats. A minimum of 3 hours of observation are required.

EDUC 2113 MATH FOR TEACHERS I
(Number Operations and Number Sense) Prerequisites: An ACT Math score of 19 or higher (or equivalent entrance exam score), BSTD 0613, MATH 1023. This is the entry-level course for P-8 education majors. Numeration systems from natural numbers through real numbers will be covered. The operations and properties with applications within each system will be developed as appropriate to the P-8 teacher.

EDUC 2223 MATH FOR TEACHERS II
(Geometry I for the Elementary and Middle Grades) Prerequisites: BSTD 0613, MATH 1023. Geometry concepts appropriate for P-8 grade levels will be developed. Topics will include appropriate geometric terminology, lines, angles, plane curves, polygons and other plane regions, polyhedral and other space figures, measure, constructions, transformation, congruence, similarity and geometric reasoning.

EDUC 2313 INTRODUCTION TO EDUCATIONAL TECHNOLOGY
Prerequisites: BSTD 0613, EDUC 2003. Covers basic technology planning in P-12 classrooms with emphasis on technology use and concepts. Decision making and consequences concerning social, ethical and human issues related to technology and computing is addressed. Minimal experience with computers is necessary.

EMERGENCY MEDICAL TECHNOLOGY

EMT 1015 EMERGENCY CARDIAC CARE
Etiology, pathophysiology, clinical features, cardiac disease processes, and assessment of patients with cardiac disorders and ACLS skills and techniques. Emphasis will be placed on the interpretation of cardiac dysrhythmia, clinical signs and symptoms of cardiac conditions, and indications and administration of cardiac therapy along with defibrillation and synchronized cardioversion skills.

EMT 1022 PHARMACOLOGY
Clinical pharmacology, classification, and use of medications. Emphasis on the proper indications, precautions, dosages, and methods of administration will be covered. Includes dosage calculations and metric conversions.

EMT 1007 EMERGENCY MEDICAL TECHNICIAN
A course designed to prepare students for the EMT licensure examination administered by the Arkansas Department of Health.

EMT 1011 EMS ENVIRONMENT I
An overview of Emergency Medical Systems. Emphasis is placed on professionalism, responsibility, development, improvement, and community involvement. The ethical and legal aspects of Emergency Medical Systems including malpractice, consent, and contracts will also be discussed.

EMT 1012 HUMAN SYSTEMS AND ASSESSMENT
History taking, charting, and physical examination skills. Emphasis on directing, defining, and describing normal and pathological body conditions.
EMT 1013 SHOCK AND FLUID THERAPY
Understanding and management of the body systems’ reactions to decreased cellular oxygenation. Body fluids, osmosis, and pathophysiology of inadequate tissue perfusion combined with the evaluation and resuscitation of these patients. The use of PASG and intravenous techniques are emphasized.

EMT 1014 PARAMEDIC CLINICAL ROTATION I
Supervised rotations through clinical settings. Rotations will include Emergency Department, operating and Recovery Room, ICU/CCU, Pediatrics, and Labor and Delivery units. This rotation will provide students with the opportunity to use all of their advanced-level skills in the clinical setting.

EMT 1023 EMERGENCY RESPIRATORY CARE
Care of patients with respiratory disorders. Discussion of the etiology and pathophysiology of the respiratory system, normal respiratory function, and mechanics of respiration. Assessment, pathophysiology of respiratory disease, evaluation, and management of respiratory distress due to medical and trauma-related problems. Emphasis will be on the uses and techniques of esophageal, endotracheal, and surgical airways.

EMT 1033 INTERMEDIATE CLINICAL ROTATION
Supervised rotations through hospital clinical areas. Emphasis will focus on areas that reinforce and allow the student to apply airway management, IV therapy, and patient assessment skills.

EMT 1043 TRAUMATOLOGY
Management and treatment of traumatic injuries including soft tissues, central nervous system, and musculoskeletal structures. Anatomy and pathophysiology, assessment, and management of traumatic injuries involving these human systems.

EMT 1053 MEDICAL EMERGENCIES I
Recognition, management, and pathophysiology of patients with medical emergencies. This module will include diabetic emergencies, anaphylactic reactions, exposure to environmental extremes, alcoholism, poisoning, acute abdomens, genitourinary problems, and medical emergencies of the geriatric patient.

EMT 2022 EMS ENVIRONMENT II
Guided practice and emphasis on disaster and triage, EMS communications, stress management, and emergency rescue extrication techniques.

EMT 2101 PARAMEDIC CLINICAL ROTATION II
Supervised rotations through clinical settings. Rotations will emphasize the Emergency Department and its correlation to the Emergency Medical Services system. Labor and Delivery, Newborn Nursery, and ICU/CCU.

EMT 2112 MEDICAL EMERGENCIES II
Recognition, management, and pathophysiology of patients with medical emergencies. This module will include infectious disease, OB-GYN, pediatrics, and behavioral emergencies.

EMT 2224 FIELD INTERNSHIP I
Supervised experience in the pre-hospital care setting that will help the student develop and utilize an understanding of the Advanced Life Support system. The student will practice skills as a team member under the direct supervision of a field preceptor. Includes participating in activities at the scene, through patient care, and assisting with coordination of events from dispatch to the transfer of patient care to the Emergency Department.
EMT 2232 ASSESSMENT-BASED MANAGEMENT
Integrates the principles of assessment-based management to perform an appropriate assessment and implement the management plan for patients with common complaints. This module will emphasize general approach, assessment, differentials, and management priorities for patients commonly encountered by the Paramedic.

EMT 2234 FIELD INTERNSHIP II
Supervised experience in the pre-hospital care setting which will allow the student to apply all of the principles and skills of the Paramedic in the pre-hospital care setting. The student will practice skills as the team leader under the direct supervision of a field preceptor. Includes directing activities at the scene, delegating patient care responsibilities, and providing coordination of events from dispatch to the transfer of care to the Emergency Department physician.

ENGLISH

ENGL 1113 COMPOSITION I
ACTS Equivalent Course Number = ENGL 1013
Prerequisites: 19 or above on the English section of the ACT, 40 or above on the Test of Standard Written English (TSWE), 42 or above on the ASSET Writing Skills test, 75 or above on the COMPASS Writing Skills test. Also, the completion of Reading II, BSTD 0613, or testing out of this course is a prerequisite. Writing the paragraph and short essay using clear and effective prose based on accepted conventions of grammar, usage, diction, and logic. An introduction to basic rhetorical models, principles, and techniques of expository and persuasive composition, analysis of texts with introduction to research methods, and critical thinking.

ENGL 1123 COMPOSITION II
ACTS Equivalent Course Number = ENGL 1023
Prerequisite: ENGL 1113 with a grade of “C” or higher. Continued work in writing skills with an introduction to research methods, the conventions of documentation, and advanced rhetorical models. Students work on maturing their composition skills by completing a research paper, a literary analysis, and other writing assignments. Further study of principles and techniques of expository and persuasive composition, analysis of texts, research methods, and critical thinking.

ENGL 2043 TECHNICAL WRITING FOR INDUSTRY
ACTS Equivalent Course Number = ENGL 2023
Prerequisite: Pass ENGL 1113 with at least a “C”. Work with the principles of writing technical documents such as instructions, descriptions, definitions, service reports, contracts, proposals, memos, emails, and customer communications, as well as prepare and present oral presentations.

ENGL 2123 ADVANCED GRAMMAR AND COMPOSITION
Prerequisite: ENGL 1123 with grade of “C” or higher. A refinement of skills including advanced grammar, rhetorical form, and specialized writing.

ENGL 2213 LITERATURE I
ACTS Equivalent Course Number = ENGL 2113
Prerequisite: ENGL 1123. Introduction to Western literature; samplings of major masterpieces from the early Greeks to A.D. 1600. Emphasis on historical context, literary analysis, and critical writing. Students may take Literature I and Literature II out of sequence.

ENGL 2223 LITERATURE II
ACTS Equivalent Course Number = ENGL 2123
Prerequisite: ENGL 1123. Introduction to Western literature with selections of works from 1660 to the present. Emphasis on historical context, literary analysis, and critical writing. Students may take Literature I and Literature II out of sequence.

**ENGL 2643 THE BIBLE AS LITERATURE**
A survey of the literary genres of the Old and New testaments, focusing on the poetic and/or narrative art of each. Not intended as a vehicle for the sectarian study of religious doctrine or theology.

**ENGL 2653 AMERICAN LITERATURE I**
*ACTS Equivalent Course Number = ENGL 2653*
Prerequisite: ENGL 1123 with a grade of “C” or higher. A survey of American literature, authors, and literary movements before 1865. Students may take American Literature I and II out of sequence.

**ENGL 2663 AMERICAN LITERATURE II**
*ACTS Equivalent Course Number = ENGL 2663*
Prerequisite: ENGL 1123 with a grade of “C” or higher. A survey of American literature, authors, and literary movements since 1865. Students may take American Literature I and II out of sequence

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**ENTREPRENEURSHIP**

**ENTR 2033 OPPORTUNITY AND FEASIBILITY ANALYSIS**
Prerequisite: ENTR 1003, ACCT 2003, ENGL 1123, Pre-or-Co-requisite ACCT 2103 (3 credit hours)
This course will develop the student’s knowledge of exploiting, determining, evaluating, and implementing strategies for determining potential entrepreneurial opportunities in the marketplace and analyzing the feasibility of those opportunities. This course is designed for students interested in entrepreneurship and designed for students seeking the Technical Certificate in Entrepreneurship, the AAS degree in general technology with the entrepreneurial minor. It is also designed for people who desire to explore various entrepreneurial opportunities in the marketplace and determine the feasibility of those opportunities.

**ENTR 1003 INTRODUCTION TO ENTREPRENEURSHIP**
Co-requisite (or Prerequisite): ENGL 1123). This course will introduce the students to entrepreneurship and how entrepreneurial businesses impact the US economy. Students will learn the basics of entrepreneurship including general aspects of marketing, developing an idea into a feasible product or service, the fundamentals of a business plan, sources for funding, entity types and other aspects of entrepreneurial businesses. The student will study successful and unsuccessful entrepreneurial ventures through case study and discussion.

**ENTR 2023 FUNDING ACQUISITIONS FOR ENTREPRENEURS**
Prerequisites: ENTR 1003, ACCT 2013, ACCT 2023, BLAW 2013 This course is designed to teach the students the various types of funding mechanisms available to the entrepreneurial company and the importance of selecting the proper funding method. This course is designed for students interested in entrepreneurship and designed for students seeking the Technical Certificate in Entrepreneurship, the AAS degree in general technology with the entrepreneurial minor. This course presents an overview of the funding process for entrepreneurial companies, both at startup and those that have some maturity.

**ENTR 2003 PROFESSIONAL SELLING AND ADVERTISING**
Prerequisites: ENTR1003. This course is specifically designed to teach the tools of professional selling and advertising methods to students. Students will learn successful sales techniques for retail and non-retail customers. Students will also learn to develop an advertising program for products and services and the appropriate medium to use. This course is designed for students seeking the technical Certificate in
Entrepreneurship, the AAS degree in general technology with an entrepreneurial minor, or for those students who desire to increase their knowledge of professional sales and advertising.

**FRENCH**

**FREN 1014, 1024 ELEMENTARY FRENCH, II**
Courses in beginning French with the efficiency-oriented approach; designed to develop skills in oral comprehension, oral expression, reading, and writing; includes study of basic grammatical concepts. Classes meet for two hours of lecture and two hours of lab each week. Course 1014 is open to students who have not studied French previously; no college credit given to students who have received credit for two years of high school French. French 1024 has the prerequisite of French 1014 or its equivalent.

**GEOGRAPHY**

**GEOG 2003 INTRODUCTION TO GEOGRAPHY**
*ACTS Equivalent Course Number = GEOG 1103*
Prerequisite: Pass BSTD 0613 with a grade of “C” or higher or make an appropriate score on the placement test. Introduction to geography explores present world populations and cultures in relation to their physical environment.

**GEOLOGY**

**GEOL 1004/L PHYSICAL GEOLOGY/LAB**
*ACTS Equivalent Course Number = GEOL 1114*
Prerequisite: Pass BSTD 0613 with a “C” or better or equivalent score on placement test. Study of earth materials and general principles, physical processes that shape the earth: weathering, erosion, volcanism, earthquakes, rock deformation, and mountain building. Recommended as a general education course.
Lecture: three hours. Laboratory: two hours

**GEOL 1014/L HISTORICAL GEOLOGY/LAB**
*ACTS Equivalent Course Number = GEOL 1134*
Prerequisite: Pass BSTD 0613 with a “C” or better or equivalent score on placement test. A survey of the natural history of the earth including origin and evolution of life as recorded in rocks. Also basic stratigraphic interpretations using fossils and sedimentary rocks. Lecture: three hours. Laboratory: two hours (Recommended as a general education course)

**HEALTH EDUCATION**

**HPER 1403 PERSONAL AND COMMUNITY HEALTH**
*ACTS Equivalent Course Number = HEAL 1003*
A consideration of various conditions and factors affecting individual and community health; designed to assist the student in formulating his/her own philosophy, attitudes and understanding of behaviors necessary to establish healthful living practices.

**HEALTH INFORMATION TECHNOLOGY**

**HIT 1003 MEDICAL TERMINOLOGY**
Study of the basic structure of medical terms including prefixes, suffixes, word roots, combining forms, plurals, pronunciation, spelling, and definitions. Introduces students to fundamental concepts in human anatomy and physiology.
HIT 1153 HEALTHCARE DELIVERY SYSTEMS
Prerequisite or Co-requisite: HIT 2073 and HIT 1281. A course of study designed to introduce the student entering health care fields of the organization, financing, and delivery of health care services. Topics presented include organization of healthcare delivery, health care organization, accreditation standards, professional licensure/certification, regulatory agencies, and payment and reimbursement systems in health care.

HIT 1283 COMPUTER APPLICATIONS FOR HEALTHCARE PROFESSIONALS
Introduction to personal computer application software using IBM compatible hardware. The course covers an introduction to word processing, electronic spreadsheet, database, graphics, and presentation software.

HIT 2073 BASIC MEDICAL CODING
Prerequisite/Co-requisite: HIT 1003, HIT 1153, HIT 2803, and BIOL 2064/l. this course will aid student in developing and understanding ICD-9-CM and/or ICD 10 coding and classification systems in order to assign valid diagnostic and/or procedure codes.

HIT 2081 PRACTICE CODING
Prerequisite/Co-requisite: HIT 1003 and HIT 2803 and BIOL 2064/l. Co-requisite HIT 2073. Practical application and laboratory practice in coding using ICD-9-CM and/or ICD 10.

HIT 2144 BASIC MEDICAL TRANSCRIPTION/LAB
Prerequisite/Co-requisite: HIT 1003, HIT 2083, and BIOL 2064/l. Review of medical terms; study of model report forms; roots, prefixes, suffixes, abbreviations; use of computers to transcribe complete medical cases from cassette tapes.

HIT 2154 ADVANCED MEDICAL TRANSCRIPTION/LAB
Prerequisite: HIT 2144. This course prepares the student in the transcription of original health care dictation using advanced proofreading, editing, and research skills while requiring progressively demanding accuracy and productivity standards. The student will learn to appropriately use related references and other resources for research and practice. Laboratory exercises are used to reinforce lecture material through the use of health care dictation by dictators with varying accents and dialects representing varying medical specialties.

HIT 2173 REIMBURSEMENT METHODOLOGY
Prerequisite or co-requisite: HIT 2183 and BIOL 2064/l. The student will study the use of coded data and health information in reimbursement and payment systems utilized in health care settings and managed care. The course will review prospective payment systems, third party payers, billing and insurance procedures, explanation of benefits statements, peer review organizations, managed care, and compliance issues.

HIT 2183 MEDICAL CODING II
Prerequisite: HIT 2073 and HIT 2081. This course will aid student in developing and understanding advanced CPT and ICD-9-CM and/or ICD 10 coding and classification systems in order to assign valid diagnostic and/or procedure codes. The course includes application of coding principles related to reimbursement, the prospective payment system, and ethical issues related to reimbursement.

HIT 2773 MEDICAL CODING PRACTICUM
Prerequisite: HIT 2183 and HIT 2191. Supervised on-the-job experience performing medical coding in a laboratory or health care facility. A minimum of 100 hours of practical experience will be required. The
class will require students to be available for assignments in health care facilities Monday through Friday for up to 8 hours per day.

**HIT 2783 MEDICAL TRANSCRIPTION PRACTICUM**  
Prerequisite: HIT 2154. Supervised on-the-job experience performing medical transcription in a laboratory or health care facility. A minimum of 100 hours of practical experience will be required. The class will require students to be available for assignments in health care facilities Monday through Friday for up to 8 hours per day.

**HIT 2803 INTRODUCTION TO MEDICAL SCIENCE**  
This course focuses on specific disease processes, etiology, signs and symptoms, diagnostic procedures, treatments, prognoses and disease intervention which the allied health care provider may encounter. The coverage of major conditions is organized by body systems. An overview of the disease process, infectious diseases, neoplasm, and congenital diseases is presented.

**HIT 2191 PRACTICE CODING II**  

**HIT 2262 MEDICAL ETHICS AND LAW**  
A course of study designed to introduce the student entering the health care field to ethical and legal issues and responsibilities. Ethical and legal responsibilities of health care workers are the major focus. Ethical/legal topics include confidentiality, patient rights, liability and malpractice, legal proceedings, and medical ethical issues such as abortion, assisted suicides, organ transplants, medical experimentation, and others. Students are encouraged to explore and express their own thoughts and ideas concerning these topics.

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**Health Sciences**

**HS 1011 ETHICS AND PROFESSIONALISM**  
Co-requisite: BSTD 0603. This ethics and professionalism course will allow students to examine common ethical, legal, and professional issues that may be faced by health care practitioners. The course will also examine privacy issues and professionalism in the workplace.

**HS 1021 BASIC COMPUTERS**  
Co-requisite: BSTD 0603. This basic computer course will allow students to learn and practice basic computer concepts and software applications with an emphasis on personal computing using Microsoft Word, PowerPoint, and Excel.

**HS 1031 CPR AND FIRST AID**  
Co-requisite: BSTD 0603. This course is designed to teach individuals basic emergency care skills needed to assist individuals in potential life threatening situations until advanced health care providers arrive.

**HIST 2043 AFRICAN-AMERICAN HISTORY**  
Prerequisite: Pass BSTD 0613 with a grade of “C” or better or equivalent score on placement test. Survey of African-American history from the African background through the slave trade, plantation system, emancipation, and up to the present. Emphasis is on the cultural and historical experience of black Americans.
HIST 1003 HISTORY OF CIVILIZATION TO 1700  
ACTS Equivalent Course Number = HIST 1213  
Prerequisite: Pass BSTD 0613 with a grade of “C” or better or equivalent score on placement test. An introductory study of civilization from the ancient era through the early modern period emphasizing European politics, culture, and society.

HIST 1013 HISTORY OF CIVILIZATION SINCE 1700  
ACTS Equivalent Course Number = HIST 1223  
Prerequisite: Pass BSTD 0613 with a grade of “C” or better or equivalent score on placement test. An introductory study of the development of modern European civilization within the context of world history.

HIST 2013 HISTORY OF THE UNITED STATES TO 1876  
ACTS Equivalent Course Number = HIST 2113  
Prerequisite: Pass BSTD 0613 with a grade of “C” or better or equivalent score on placement test. A general survey of the history of the United States from the beginning of North American colonization through the Civil War and Reconstruction.

HIST 2023 HISTORY OF THE UNITED STATES SINCE 1876  
ACTS Equivalent Course Number = HIST 2123  
Prerequisite: Pass BSTD 0613 with a grade of “C” or better or equivalent score on placement test. A general survey of the history of the United States from the end of Reconstruction to the present.

HIST 2123 LOUISIANA HISTORY  
Prerequisite: BSTD 0613 with a grade of “C” or better or equivalent score on placement test. This course is a general survey of the history of Louisiana from its earliest known habitation to the present, including its politics, economics, and culture.

HIST 2033 HISTORY OF ARKANSAS  
Prerequisite: BSTD 0613 with a grade of “C” or better or equivalent score on placement test. General survey of the history of Arkansas from its earliest known habitation to the present.

HIST 2143 NATIVE AMERICAN HISTORY  
This class explores the archaeology, ethnology, and history of the Native Americans from the time of their arrival in North America prior to 12,500 B.C. to the present. Prerequisite: Completion of ENGL 1113 with at least a C and one semester of history or consent of the instructor.

IDEQ 1003 FUNDAMENTALS OF INDUSTRIAL MAINTENANCE  
Co-requisite: TECH 1203. This course covers basic maintenance fundamentals for industrial System technology. Topics include tools used within the industrial Equipment/millwright industry; proper used of fasteners and anchors; and gasket and O-ring maintenance.

IDEQ 1103 BLUEPRINT READING FOR INDUSTRIAL TRADES  
The student will learn to read and interpret blueprints commonly found in the industrial maintenance settings. Topics include blueprint layout, symbols, projections, dimensions, tolerances, clearances, assembly, and bill of material.
IDEQ 1403 FUNDAMENTALS OF ELECTRICITY
Prerequisite: TECH 1203. Introduces the student to the National Electrical Code and its application in designing and installing electrical circuits, selecting wiring materials and devices, and choosing wiring methods. Includes electrical safety, terminology, interpretation of electrical symbols used in construction blueprints, branch circuit layout, over-current protection, conductor sizing, grounding, GFCI and AFCI protection, tool usage, and material/device selection.

IDEQ 1413 ELECTRICAL CIRCUITS
Prerequisite: TECH 1203 and IDEQ 1403. Provides fundamentals of single- and three-phase alternating current including parallel circuits, resistance, inductance, capacitance, switching, fusing, current requirements, transformer applications, and motor controls. Covers the basics of mechanical and electrical installations, emphasizes tool use and material selection and electrical troubleshooting diagnosis and repair.

IDEQ 1603 FLUID POWER SYSTEMS
(HYD/PNEU) Course is designed to present the basic theory and application of hydraulic and pneumatic components and systems in an industrial environment. Basic and advanced hydraulics and pneumatics, safety, and troubleshooting will be the main topics.

IDEQ 2503 PRECISION MEASURING TOOLS
Explains how to select, inspect, use and care for levels, feeler gauges, calipers, micrometers, height gauges and surface plates, dial indicators, protractors, parallels and gauge blocks, trammels, and pyrometers.

IDEQ 1613 ADVANCED FLUID POWER
(HYD/PNEU) Prerequisite: IDEQ 1603 and TECH 1203 or consent of instructor. Course covers the complex components and systems. Cartridge, servo, and proportional valves, pneumatic controls and control systems will be covered.

IDEQ 1903 INDUSTRIAL MOTORS AND CONTROLS
Prerequisite: IDEQ 1403. Course covers electrical tools, instruments and safety, industrial electrical symbols, and line diagrams, theory to logic as applied to line diagrams, AC manual contractors and motor starter, magnetic solenoids, AC/DC contactors and magnetic motor starters, time delay logic and complex control circuits, control devices, reversing circuits applied to single phase, three phase and DC motors, electro-mechanical and solid state relays, AC reduced voltage starters, accelerating and decelerating methods and circuits, preventive maintenance, and troubleshooting.

IDEQ 2003 INDUSTRIAL MECHANICS
Prerequisite: TECH 1203. This course will cover industrial rigging and equipment installation; preventive and predictive maintenance; proper selection and care of lubrication; various pumps and turbine, and bearings used throughout the industry.

IDEQ 2013 COUPLING AND ALIGNMENT
**INDUSTRIAL TECHNOLOGY — MECHATRONICS**

**MECT 1504 DIGITAL CIRCUIT TECHNOLOGY**
This course is designed to introduce students to the fundamental concepts encountered in digital electronics. Both classroom and lab instruction will be utilized. Topic covered include numbering systems and codes used in digital circuits, basic logic gates, encoders and decoders, flip-flops, counters, and registers.

**MECT 1804 INTRODUCTION TO PLC**
The course is designed to provide the student with instruction about the internal structure, principles of operation, programming techniques, and maintenance & Operation of Programmable Logic Controllers (PLCs) for industrial applications. Troubleshooting and programming experiments are performed in the lab. The student will write PLC programs that cause real-world equipment to function according to industry standards. The student will wire control devices such as limit switches, solenoid valves, timers, photo-sensors, three-phase motors, and captive sensors.

**MECT 2203 PLC APPLICATIONS**
Prerequisite: MECT 1804. This course is a continuation of Introduction to Programmable Logic Controllers and involves the interfacing of devices such as variable frequency drives, transducers, and PID controls. The course includes advanced arithmetic functions and digital and analog inputs as well as outputs. PLC troubleshooting techniques will be introduced. (2 hours lecture/3 hours lab).

**MECT 2402 TRANSDUCERS**
This course introduces the student to the theory and applications of photo-electric, temperature, motion, position detection, and other types of transducers. HMI (Human-Machine-Interface Software) will also be introduced. (1 hours lecture, 2 hours lab).

**MECT 2803 INTRODUCTION TO ROBOTICS**
Prerequisite: MTEC 1804. The course uses a team approach to introduce students the basics of operating industrial robots. The course teaches how robots move (locomotion and kinematics), how they sense (perception), and how they reason about their environment (planning). Lecture information is tied to lab experiments and sessions. Students are exposed to robotics related career options in the manufacturing and other industries (2 class hours / 2 laboratory hours).

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**MANAGEMENT**

**MGMT 1113 INTRODUCTION TO MANAGEMENT**
Prerequisite: Pass BSTD 0613 with a “C” or better or equivalent score on placement test. Students learn to apply the basic management functions of planning, organizing, leading, and controlling. Decision making and teamwork skills are emphasized.

**MGMT 1114 PRACTICUM/INTERNSHIP I**
Pre/Co-Requisites: MGMT 1113 and/or MGMT 2113. The Practicum provides work experience as part of study. The course is open to students enrolled in the management program. It provides meaningful work experience in the business field as a paid or volunteer employee. The student, employer, and program coordinator develop an individual program for each student that is evaluated by both the employer and the program coordinator. A weekly progress review by email or in person is required of the student. Monthly progress reports and an ending comprehensive report will be submitted. A performance evaluation by supervisor and an original research report relevant to the business in which the student is employed are required.
MGMT 1123 HUMAN RESOURCE MANAGEMENT
The principles, methods, and procedures related to the effective utilization of human resources in organizations.

MGMT 2113 MANAGEMENT SKILLS
Prerequisite: Pass BSTD 0113 with a “C” or better or equivalent score on placement test. Study of managing employees covering the theories of human motivation, problem solving, delegating, disciplining, and administering performance appraisals.

MGMT 2114 JOB PRACTICUM/INTERNSHIP II
A continuation of MGMT 1114. (With permission of instructor).

MGMT 2214 JOB PRACTICUM/INTERNSHIP III
A continuation of MGMT 1114 and MGMT 2114 (With permission of instructor).

MGMT 2613 SMALL BUSINESS MANAGEMENT
Prerequisite: Pass BSTD 0613 with a “C” or better or equivalent score on placement test. Guidelines on starting a new business, focusing on the unique problems and circumstances encountered in establishing and operating a small business. Emphasis on the reasons for small business failure and the minimization of those forces. This is a hybrid course that does not meet in the classroom, but tests are taken on campus.

MGMT 2653 SPECIAL TOPICS IN MANAGEMENT
A study of current issues in the field of human resource and operation management. Selected topics will be introduced from special readings and research. Designed to keep the professional manager abreast in the various fields of management.

MATHEMATICS

MATH 1113 QUANTITATIVE LITERACY/MATHEMATICAL REASONING
ACTS Equivalent Course Number = MATH 1313
Prerequisite: BSTD 0513 with a grade of C or better, or a score of at least 19 on the math component of the ACT exam, or a score of at least 41 on the math component of the COMPASS, or a score of at least 39 on the math component of the ASSET exam. This is a college-level mathematics course designed for general education degree majors not requiring College Algebra. Topics include applied concepts in the following areas: personal, state and national finance; statistics and probability; functions and modeling; and quantities and measurement. A strong emphasis will be placed on critical thinking. This course will also focus on process, conceptual understanding, communication and problem solving.

MATH 2013 BUSINESS CALCULUS
Prerequisites: MATH 1203. This course addresses functions and their business applications, limits and continuity, differentiations, and integrals. This includes exponential and logarithmic functions, multivariable functions, and derivatives. Attention will be given specifically to business applications.

MATH 2103 INTRODUCTION TO STATISTICS
ACTS Equivalent Course Number = MATH 2103
Begins with descriptive statistics: organizing, summarizing, and illustrating data using graphs and measurements such as mean and standard deviation. Continues with a study of the basic rules of probability and probability distributions, with special attention to binomial (discrete) and normal (continuous) probability distributions. Also includes inferential statistics, covering the basics of hypothesis testing. The various simple tests such as z-test and t-test are studied. The useful simple linear
regression and correlation are also introduced as the last part of this course. Prerequisite: intermediate Algebra (with a C or better) or High School Algebra II (with a C or better).

**MATH 1023 COLLEGE ALGEBRA**

*ACTS Equivalent Course Number = MATH 1103*

Prerequisite: Meets basic studies math requirement. This is a college-level mathematics course. Topics include solutions to quadratic equations, solutions to quadratic and rational inequalities, functions (including linear, absolute value, piecewise defined, quadratic, polynomial, rational, exponential, and logarithmic), graphing functions, shifting and reflecting graphs, combinations of functions, inverse functions and systems of equations (including some matrix methods).

**MATH 1033 PLANE TRIGONOMETRY**

*ACTS Equivalent Course Number = MATH 1203*

Prerequisite: MATH 1023 or the equivalent. MATH 1023 might serve as a co-requisite for some students with permission of the instructor. Topics include right and oblique triangles, angle measurement, trigonometric functions, solving triangles, trigonometric identities, solving trigonometric equations, graphs of trigonometric functions, inverse trigonometric functions, complex numbers and their trigonometric forms.

**MATH 1333 MATH FOR BUSINESS APPLICATIONS**

Prerequisites: BSTD 0413. This course is designed with all the math tools or mathematical techniques students need to successfully handle everyday business transactions, manage their personal finances, and start or operate a small business. Topics include basic math review with applications, elementary math review with applications, bank service, payroll, mathematics of selling, simple interest, compound interest, financial statements and ratios, business statistics. The course is intended for students seeking the AAS degree in general Business Administration or Computer information technology. It is not designed to transfer to a university as a math credit.

**MATH 2015 CALCULUS I**

*ACTS Equivalent Course Number = MATH 2405*

Prerequisite: MATH 1023 and 1033, or equivalent. Differential and integral calculus of functions of one variable with application; topics from plane analytic geometry. Topics include limits, differentiation, applications of differentiation, anti-derivatives, definite integrals, applications of differentiation, differential equations, differentiation, and integration applied to logarithmic and exponential function.

**MATH 2115 CALCULUS II**

*ACTS Equivalent Course Number = MATH 2505*

Prerequisite: MATH 2015. A continuation of Calculus I. topics include differentiation and integration of inverse trig and hyperbolic functions, applications of definite integrals, integration techniques, L’Hopital’s Rule, improper integrals, infinite series, conics, parametric equations, and polar coordinates.

**MEDICAL LABORATORY SCIENCE**

**MLS 1031 PHLEBOTOMY PRACTICUM**

The study of withdrawing blood. The student will learn theory and technique in the classroom. The instructor will coordinate the drawing of 100 venous withdrawals and 5 finger sticks for course completion (minimum of 100 clinical hours). The successful completion of MLS 1013 and 1021 qualifies the student to sit for one of several national phlebotomy certification examinations.
MLS 1001 INTRODUCTION TO MEDICAL LAB SCIENCE
This course is an orientation to the profession of clinical laboratory science, the professional practice of clinical laboratory science, and the different departments and procedures encountered in the clinical laboratory.

MLS 1002 BASIC EKG
This course provides students with the basic knowledge and skills to perform an electrocardiogram (EKG). It also introduces basic cardiac arrhythmias and medications used to treat them. Upon successful completion of this course, students are eligible to sit for national certification examination.

MLS 1013/L PHLEBOTOMY
Co-requisite: BSTD 0603. This course centers on the study of phlebotomy, professionalism, patient relations, basic medical terminology, types of specimens, specimen collection procedures, complications of venipuncture, adaptations for special limits and special types of patients, and actual collection of laboratory specimens. Individuals who successfully complete this course and provide proof of successful collection of an additional 100 venipuncture specimens will be qualified to sit for the American Society of Phlebotomy technicians (ASPT) national phlebotomy certification examination. Two hours lecture and two hours laboratory.

MLS 1022 CLINICAL MICROSCOPY
Prerequisite: Admission to professional MLS program. This course involves a study of the morphology, anatomy, and physiology of the renal system and principles of urinalysis. The course will also discuss various body fluids and the clinical significance of those fluids. The accompanying laboratory will present physical, chemical, and microscopic studies of urinalysis and various body fluids and associated interpretation of the results.

MLS 1032 CLINICAL MICROSCOPY PRACTICUM
Prerequisite: Admission to the professional MLS program. Students rotate through the urinalysis and Body Fluids sections of affiliated clinical laboratories and observe and perform test procedures under the supervision of the clinical staff. Students participate in all aspects of laboratory work and acquire competencies based upon the level established by the program’s clinical cognitive, psychomotor, and affective objectives. Upon completion of this course the student should have mastered skills necessary for entering the medical laboratory as an employee at the beginning technician level.

MLS 1034 CLINICAL HEMATOLOGY/ COAGULATION
Prerequisite: Admission to the professional MLS program. This course involves a study of the collection and preparation of blood samples, production and function of blood cells, functions of the circulatory and coagulation systems, red and white cell counts, the complete blood count, diseases of the blood and abnormalities in the blood clotting mechanism.

MLS 1044 CLINICAL HEMATOLOGY/ COAGULATION PRACTICUM
Prerequisite: Admission to the professional MLS program. Students rotate through the Hematology/Coagulation section of affiliated clinical laboratories and observe and perform test procedures under the supervision of the clinical staff. Students participate in all aspect of laboratory work. The students acquire competencies based upon the level established by the program’s clinical cognitive, psychomotor, and affective objectives. Upon completion of this course the student should have mastered skills necessary for entering the medical laboratory as an employee at the beginning technician level.

MLS 2003 COOPERATIVE EDUCATION
Planned and supervised work experience in student’s major field to include phlebotomy, patient relations, laboratory operations, and laboratory computers. Grades of A, B, C, and NC (No Credit) will be earned.
Course may be repeated for a total of 6 credits. Students must work a minimum of 20 hours per week and be compensated by the employer.

**MLS 2004 CLINICAL IMMUNOLOGY/IMMUNOHEMATOLOGY**
Prerequisite: Admission to the professional MLS program. This course includes donor selection criteria; blood component collection, preparation, preservation and usage; identification of ABO, Rh and other blood groups; concepts of compatibility testing, antibody detection and identification; perinatal testing of mother and baby; and special Blood Bank techniques and regulations in accordance with AABB and FDA rules and recommendations. An overview of genetics and immunology pertaining to the clinical blood bank are included. Basic immunology and blood banking techniques are performed in the student laboratory.

**MLS 2014 CLINICAL IMMUNOLOGY/IMMUNOHEMATOLOGY PRACTICUM**
Prerequisite: Admission to the professional MLS program. Students rotate through the immunology/Immunohematology sections of affiliated clinical laboratories and observe and perform test procedures under the supervision of the clinical staff. Students participate in all aspect of laboratory work. The students acquire competencies based upon the level established by the program’s clinical cognitive, psychomotor, and affective objectives. Upon completion of this course the student should have mastered skills necessary for entering the medical laboratory as an employee at the beginning technician level.

**MLS 2024 CLINICAL MICROBIOLOGY**
Prerequisite: Admission to the professional MLS program. Classification of pathogenic bacteria, methods for culturing and identifying microorganisms, and determining effectiveness of treatment drugs. Identification and classification of parasites associated with human disease. Parasitic life cycles and transmission of infections. Routine record keeping, special procedures, quality control, and safety in handling pathogenic materials.

**MLS 2034 CLINICAL MICROBIOLOGY PRACTICUM**
Prerequisite: Admission to the professional MLS program. Students rotate through the Microbiology section of affiliated clinical laboratories and observe and perform test procedures under the supervision of the clinical staff. Students participate in all aspect of laboratory work. The students acquire competencies based upon the level established by the program’s clinical cognitive, psychomotor, and affective objectives. Upon completion of this course the student should have mastered skills necessary for entering the medical laboratory as an employee at the beginning technician level.

**MLS 2215 CLINICAL CHEMISTRY**
Prerequisite: Admission to the professional MLS program. This course consists of a study of the physiologic limits and composition of various body fluids, methods of analysis, interpretation of results, and troubleshooting errors. Laboratory mathematics, quality control, and quality assurance are an integral part of this course. Principles of basic clinical chemistry and toxicology procedures applied to enzymes; endocrine function; electrolytes and blood gases; renal function; gastric, pancreatic, and intestine function; biochemistry of pregnancy; therapeutic drug monitoring; and, analysis of toxic substances are also a component.

**MLS 2225 CLINICAL CHEMISTRY PRACTICUM**
Prerequisite: Admission to the professional MLS program. Students rotate through the Chemistry section of affiliated clinical laboratories and observe and perform test procedures under the supervision of the clinical staff. Students participate in all aspect of laboratory work. The students acquire competencies based upon the level established by the program’s clinical cognitive, psychomotor, and affective objectives. Upon completion of this course the student should have mastered skills necessary for entering the medical laboratory as an employee at the beginning technician level.
MLS 2312 SEMINAR IN MANAGEMENT/PROFESSIONAL DEVELOPMENT
Prerequisite: Admission to the professional MLS program. Class requirements include resume preparation and discussion of current career opportunities in laboratory medicine. The course will also entail a review of the entire clinical program with special emphasis placed upon preparation for a national certification/registry examination.

MICROBIOLOGY

MBIO 1124/L MICROBIOLOGY/LAB
ACTS Equivalent Course Number = BIOL 2004
Prerequisite: Pass BSTD 0613 and BSTD 0413 with a grade of “C” or better or make an appropriate score on the placement test. Introduction to the world of microbes, including those that cause human diseases. Instruction is given in classification, metabolism, morphology, and identification of bacteria plus basic techniques for the microbiology laboratory. Classifications of parasites and fungi are included. Three hours lecture and two hours laboratory.

Music

*PRIVATE PIANO INSTRUCTION
Private lessons one on one with an instructor. The study of scales, technical exercises, compositions of major classical composers (Bach, Haydn, Mozart, and Chopin) will be covered. Students will perform in student recitals during the semester and will demonstrate progress each semester as determined by the faculty. One half-hour private lesson per week with daily practice requirements.
MUS 1001 – First Year, First Semester Piano lessons
MUS 1011 – First Year, Second Semester Piano lessons
MUS 2001 – Second Year, First Semester Piano lessons
MUS 2011 – Second year, Second Semester Piano lessons

*MUS 1301 INTRODUCTION TO PIANO PRIVATE INSTRUCTION
Piano instruction will include an introduction to the piano keyboard, piano literature, and music theory for the student with no previous knowledge or use of the piano in a private lesson. One half-hour private lesson per week with daily practice requirements.

PIANO CLASS
No Prerequisites. Piano lab classroom (limited to 8 digital pianos) will introduce students who have little or no experience to playing piano and to basic music theory. Students will learn simple pieces using music reading, and correct technique. The class will meet twice weekly (50 minutes per lesson time). Expected outcomes from this beginning class will include playing in ensemble as well as alone; ability to notate and read music; understanding keys, pentascales, and time signatures; and learning to sight read.
MUS 1302 – First Year, First Semester Piano lab
MUS 1312 – First Year, Second Semester Piano lab
MUS 2302 – Second Year, First Semester Piano lab
MUS 2312 – Second year, Second Semester Piano lab

MUS 1083 FUNDAMENTALS OF MUSIC THEORY
An introduction to scales, intervals, elementary harmonic structure, rhythm, and sight-reading.

MUS 2413 MUSIC THEORY III
Prerequisite: Must be taken with Sight Singing and Ear training or by instructor’s consent. The study of theory, harmony, and practice of Western music from the 17th century to the present, including review of music fundamentals, triad construction and inversions, voice leading, and harmonic structure. Part writing
and ear training will be in conjunction with MUS 1421. This course is a continuation of theory I. triads and seventh chords, non-harmonic tones, and modulations to closely related keys are studied. Secondary functions will be introduced and studied as well as formal analysis of binary and ternary forms. The student will harmonize melodies and realize figured basses.

**MUS 1111 CLASS VOICE INSTRUCTION**
Prerequisite: instructor’s interview. Designed to develop a good sense of pitch, proper breath control, tone, and diction, using group methods in a non-threatening environment.

**PRIVATE VOICE INSTRUCTION**
Prerequisite: instructor’s interview. Individualized study of simple Italian, English, French, and German songs to aid the student in learning repertoire, styles, and correct vocal production. Interested students must be able to demonstrate proficiency in reading music. One half hour lesson per week with daily practice requirements.

- **MUS 1211** – First Year, First Semester Voice lessons
- **MUS 1221** – First Year, Second Semester Voice lessons
- **MUS 2211** – Second Year, First Semester Voice lessons
- **MUS 2221** – Second year, Second Semester Voice lessons

**MUS 1252 SIGHT SINGING AND EAR TRAINING**
Intensive training to read music at sight and to be able to take musical dictation. The class will develop sight singing skills by use of a text, homework, and group participation during class time. A good knowledge of music theory will be necessary for success in this course. It is recommended that Fundamentals of Music theory be taken before this class, but it is not essential for success if the student has a good instrumental background.

**MUS 1421 SIGHT SINGING AND EAR TRAINING II**
Prerequisite: Must be taken with Music theory II or by instructor’s consent. This course is a continuation of Ear training I. it is the aural study of intervals, melodies and triads, scales, rhythms, and sequences. While further developing those skills, acquired in Ear training I, the course will proceed with an aural study of functional harmony. The purpose is to increase listening skills essential for a musician.

**MUS 2411 SIGHT SINGING AND EAR TRAINING III**
Prerequisite: grade of “C” or better in MUS 1421. Co-requisite: MUS 2413. This course is a continuation of Sight Singing and Ear training II. This course is the aural study of intervals, melodies and triads, scales, rhythms and sequences. While further developing those skills acquired in Ear training ii, the course will proceed with an aural study of functional harmony. The purpose is to increase listening skills essential for a musician.

**PRIVATE ORGAN INSTRUCTION**
Prerequisite: Piano Proficiency and instructor’s interview. Individual classical organ lessons for use in church music or recital. Hymn playing, technical exercises, and familiarity with the instrument will be emphasized.

- **MUS 1711** – First Year, First Semester Organ lessons
- **MUS 1721** – First Year, Second Semester organ lessons
- **MUS 2711** – Second Year, First Semester organ lessons
- **MUS 2721** – Second year, Second Semester organ lessons

**SOUTHARK SINGERS**
A mixed chorus that performs choral music of many styles from various periods and performs for college functions and community events.
MUS 1411 – First Year, First Semester SouthArk Singers
MUS 1421 – First Year, Second Semester SouthArk Singers
MUS 2411 – Second Year, First Semester SouthArk Singers
MUS 2421 – Second year, Second Semester SouthArk Singers

MUS 2003 MUSIC APPRECIATION
ACTS Equivalent Course Number = MUSC 1003 (for non-music majors)
Prerequisite: Pass BSTD 0113 with a grade of “C” or better or equivalent score on placement test. Survey of music history and literature with emphasis on listening to and evaluating all types of music including the works and influence of the major composers; the production of the music; instruments of the orchestra and voice, solo and ensemble; and elements, form and terminology. Current events are stressed, and some concert attendance required.

MUS 1231 GUITAR CLASS I
An introductory course to learning the fundamentals of guitar playing. The course will focus on learning basic chords, conventional strumming techniques and finger picking, and notes in first position as well as the general technique of guitar playing. Open to all SouthArk Students. Group instruction. Special course fees may apply. Students must have a guitar to bring to class. This instrument must be approved by the instructor as suitable for learning.

MUS 1241 GUITAR CLASS II
Open to all SouthArk students who have completed MUS 1231 or can demonstrate an equivalent level of competency. This course focuses on group instruction for more advanced guitarists. Special course fees may apply. Students must have a guitar to bring to class. This instrument must be approved by the instructor as suitable for learning.

*PRIVATE GUITAR INSTRUCTION
Prerequisite: interview with instructor. Continue study by working on reading skills and application of theory knowledge to the guitar. The student should be able to play a simple solo with melody and accompaniment by the end of the semester. Advanced students will study well-known pieces in the classical guitar repertoire.

MUS 1511 – First Year, First Semester
MUS 1521 – First Year, Second Semester
MUS 1531 – Second Year, First Semester
MUS 1541 – Second year, Second Semester

*A music fee is charged for these courses. The fee scales are listed in this catalogue under “Financial Information.”

MUS 2503 MUSIC PERFORMANCE
Prerequisites: ENGL 1123, MUS 1083, and at least two semesters of successful group and private vocal, piano, or guitar instruction. Students will study the history, psychology, methodology, interpretation, and criticism of musical performance.

NURSING ASSISTANT

NA 1002 NURSING ASSISTANT TRAINING
Course theory consists of studies in health care delivery in the long-term care facility. Content relates to understanding theory of human needs, infection control, safety measures, nutrition, and body mechanics. Classroom lab will enable the student to show return demonstration of theories covered in class prior to going to the clinical setting.
NA 1012 NURSING ASSISTANT LABORATORY
Theory will be continued along with classroom labs prior to entering the clinical setting. Students will apply theoretical concepts learned in NA 1002 to basic care skills commonly used in hospitals, nursing homes and various long term care facilities.

NA 1022 NURSING ASSISTANT CLINICAL PRACTICUM
This course is designed to incorporate theories learned in the classroom and laboratory setting into clinical practice. Students will apply skills related to the provisions of quality care in a safe, instructional environment. Students will communicate effectively with clients, staff, and family members, and various members of the healthcare team.

OTA 1003 INTRODUCTION TO OCCUPATIONAL THERAPY
Prerequisite: CSCI 1003. Must have tested out of BSTD courses. Basic concepts of occupational therapy to include philosophy, tenets, history, work settings, laws, ethics, occupational science, clinical reasoning, and basic components of the profession. Occupational therapy terminology and medical terminology are emphasized.

OTA 1303 GROUP INTERVENTION SKILLS
Prerequisite: OTA 1003, 2101, 2103, 2113, 2203. Group process and dynamics; occupational therapy intervention and activity across the lifespan. Development of leadership and skills for group intervention in various settings. Acceptance in the Occupational Therapy Assistant Program

OTA 1404 MENTAL HEALTH AND OCCUPATIONAL THERAPY INTERVENTIONS
Prerequisite: OTA 1003, 2101, 2103, 2113, 2203. Occupational therapy evaluation and intervention of individuals with psychosocial disorders. Focus on occupation, social skills, coping skills, therapeutic use of self and the healthcare team. Acceptance in the Occupational Therapy Assistant Program.

OTA 1503 OCCUPATION INTERVENTION ANALYSIS AND APPLICATION
Pre-requisite: OTA 1003, 2101, 2103, 2113, 2203. Task activity analysis, teaching and learning process of therapeutic interventions throughout the lifespan. Tools, basic techniques, safety addressed for crafts, fine arts, leisure, exercise, occupation, and wellness. Acceptance in the Occupational Therapy Assistant Program.

OTA 2101 CLINICAL INTERVENTIONS LABORATORY
Prerequisite: OTA 1003. Practice of hands-on therapy skills for person transfers, muscle location, safety with functional mobility, adaptive dressing, developmental screening, adaptive therapeutic equipment, vital signs, reflex testing, sensory techniques, observation skills, culture self-assessment, client interview, and use of self therapeutically. Acceptance in the Occupational Therapy Assistant Program.

OTA 2103 KNOWLEDGE, HEALTH, AND WELLNESS OF DISEASE PROCESSES
Prerequisite: OTA 1003. Study of disease, health, and wellness of both mental and physical realms. The role of occupational therapy associated with health, wellness, and intervention are emphasized. Acceptance in the Occupational Therapy Assistant Program.

OTA 2113 PEDIATRICS AND OCCUPATIONAL THERAPY INTERVENTIONS
Prerequisite: OTA 1003. Study of human development with emphasis on tenets of occupational therapy practice for reflex movement, postural control, cognition, perception, sensory integration, oral motor, and hand development, as it relates to gross and fine motor skills. Focus on family, early intervention, childhood occupations. Acceptance in the Occupational Therapy Assistant Program.
OTA 2201 FIELDWORK LEVEL I
Prerequisites: OTA 1003, 2101, 2103, 2113, 2203. Develops documentation and observation skills in clinical areas and applies theory to observation and experiences. Various occupational therapy settings. Practical skills associated with service delivery. Service Learning addressed. Acceptance into the Occupational Therapy Assistant Program.

OTA 2203 GERIATRICS AND OCCUPATIONAL THERAPY INTERVENTIONS
Prerequisite: OTA 1003. Occupational therapy intervention with elderly. Study of aging process, diseases and conditions, settings, health and wellness, health literacy, reimbursement, public policy/advocacy, culture, ethics, caregiving, interventions and assistant roles. Acceptance into the Occupational Therapy Assistant Program.

OTA 2303 ADVANCED CLINICAL MANAGEMENT
Prerequisites: OTA 1003, 2101, 2103, 2113, 2203. Occupational therapy service management to include documentation, ethics, reimbursement, laws, quality programs, infection control, evidence based practice, management/leadership roles, occupational therapy process, healthcare continuum, career readiness, and professional relationships/teams. Acceptance in the Occupational Therapy Assistant Program.

OTA 2304 ADVANCED OCCUPATIONAL THERAPY INTERVENTIONS
Prerequisite: OTA 1003, 1303, 1404, 1503, 2101, 2103, 2113, 2201, 2203, 2303. Study and practice of advanced concepts and techniques of occupational therapy evaluation and intervention. Safe therapeutic interventions learned and practiced for various populations. Acceptance into the Occupational Therapy Assistant Program.

OTA 2404 PHYSICAL DYSFUNCTION AND OCCUPATIONAL THERAPY INTERVENTIONS
Prerequisite: OTA 1003, 1303, 1404, 1503, 2101, 2103, 2113, 2201, 2203, 2303. Occupational therapy evaluation and intervention for acute and chronic conditions (neurological, spinal cord injury, burns, orthopedic, cardiac, musculoskeletal, arthritic, joint replacement, degenerative, pulmonary, immune deficiency, oncology). Occupational therapy tenets and psychosocial considerations considered. Acceptance into the Occupational Therapy Assistant Program.

OTA 2504 ADVANCED CLINICAL INTERVENTION SKILLS
Prerequisite: OTA 1003, 1303, 1404, 1503, 2101, 2103, 2113, 2201, 2203, 2303. Therapeutic intervention techniques and evaluations for various client populations. Simulated client case situations. In/out of class demonstrations of various client based professional skills. Prepare for Fieldwork Level II and career expectations. Acceptance in the Occupational Therapy Assistant Program.

OTA 2514 FIELDWORK LEVEL II-A
Prerequisite: OTA 1003, 1303, 1404, 1503, 2101, 2103, 2113, 2201, 2203, 2303, 2304, 2404, 2504. Supervised full time (full-time clinical internship for 8 weeks), in-depth, hands-on clinical experience. Must complete within 18 months of academic course work. Acceptance into the Occupational Therapy Assistant Program.

OTA 2524 FIELDWORK LEVEL II-B
Prerequisite: OTA 1003, 1303, 1404, 1503, 2101, 2103, 2113, 2201, 2203, 2303, 2304, 2404, 2504. Supervised, full time (full time clinical internship for 8 weeks), in-depth, hands-on clinical experience. Must complete within 18 months of academic course work. Acceptance into the Occupational Therapy Assistant Program.
PHILOSOPHY

PHIL 2003 INTRODUCTION TO PHILOSOPHY
**ACTS Equivalent Course Number = PHIL 2003**
Prerequisite: Pass BSTD 0613 with a grade of “C” or better or equivalent score on placement test. This course is designed to acquaint the student with classic issues, ideas, thinkers, and strategies in the realm of philosophy. Special emphasis will be placed upon identifying and examining the philosophical positions that shape our lives today.

PHYSICAL EDUCATION

PE 1001 ACTIVITIES
Instruction and practice in sports and activities that contribute to present and future recreational needs, organic development, and fitness of the student. Instruction in the rules, strategies, social behaviors, and techniques of individual, dual, and team sports. (Two one-hour labs per week)

PHYSICAL SCIENCE

PHYS 1004/L THE PHYSICAL SCIENCES/LAB
**ACTS Equivalent Course Number = PHSC 1004**
Prerequisite: Pass BSTD 0613 and BSTD 0413 with a grade of “C” or better or make an appropriate score on the placement test. Critical thinking is incorporated to explore, analyze, and evaluate the principles of elementary physics, chemistry, earth science, and astronomy for the non-science major. A core course in general education. Three hours lecture and 2 hours laboratory.

PHYSICAL THERAPIST ASSISTANT

PTA 1002 INTRODUCTION FOR PHYSICAL THERAPIST ASSISTANTS
Prerequisites: completion of BSTD courses (exception BSTD 0513 and SAS 0103) history of physical therapy from WWI and polio epidemic to the present; similarities and differences in PT and PTA education, practice and responsibilities; medical ethics, legal practice, and current healthcare issues affecting physical therapy.

PTA 2304 PATHOPHYSIOLOGICAL CONDITIONS
Prerequisite: Admission to PTA Program. Co-requisites: PTA 2315/l, PTA 2323. Study of disease pathophysiology, etiology, clinical signs and symptoms of many diseases and injuries seen in physical therapy. Emphasis is placed on the process of inflammation and healing, pain, causes of disease, musculoskeletal conditions, cardiopulmonary conditions, and diseases affecting endocrine, immunity, vascular, and reproductive systems that are common to the field of physical therapy. Medical, surgical, and physical therapy management is presented. Medical literature research is required.

PTA 2315/L APPLIED PHYSICAL THERAPY I/LAB
Prerequisite: Admission to the PTA Program. Co-requisites: PTA 2304, PTA 2323 Physical therapy data collection procedures relating to patient status (temperature, heart rate, blood pressure, respiration, pain), and selected therapeutic interventions such as asepsis, universal precautions, sterile technique, body mechanics, transfers, positioning, gait training with assistive devices, and range of motion exercises, stretching exercises, peripheral joint mobilization, resistive exercises for the upper extremity, and data collection related to assessment of motion and strength for the upper extremity; oral and written communication, the roles of the other members of the health care team, and the performance of treatment interventions as developed by the PT. three hours lecture and four hours of lab.
PTA 2323 ADMINISTRATION AND MANAGEMENT FOR PHYSICAL THERAPIST ASSISTANTS
Prerequisite: Admission to the PTA Program. Co-requisites: PTA 2315/l, PTA 2304. Success strategies for PTA students; reimbursement issues; ethical guidelines; laws affecting the practice of physical therapy; APTA; hospital organizations; liability/malpractice issues; PTA communication and personal management skills; and, assessment of quality care.

PTA 2406/L PHYSICAL THERAPY PROCESSES/LAB
Prerequisites: PTA 2315/l, PTA 2323, PTA 2304. Co-requisites: PTA 2515/l, PTA 2424 Principles and techniques of modalities (superficial and deep heating agents; cryotherapy; electrical stimulation; mechanical traction; and intermittent compression) used in the plan of care developed by the PT including indications and contraindications and patients’ physiological response to each modality with a wide variety of musculoskeletal, neuromuscular, and medical conditions; physical therapy interventions such as wound care / debridement, stump care and prosthetics; oral and written communication techniques with patient/family, the health care team, and the supervising PT. Students must demonstrate competency in the use of selected therapeutic interventions. Four hours of lecture and four hours of lab.

PTA 2415/L APPLIED PHYSICAL THERAPY II/LAB
Prerequisites: PTA 2315/l, PTA 2323, PTA 2304. Co-requisites: PTA 2406/l, PTA 2424. Physical therapy data collection procedures including: joint motion, gross manual muscle strength, posture, gait, fatigue, endurance, pulmonary assessment; and patient care interventions related to application of therapeutic exercise (extremity, spinal, osteoarthritis / rheumatoid arthritis, DM, OB/GYN, pulmonary, cardiovascular/endurance), posture correction, and massage to be done by PTAs. Indications, precautions, contraindications, and the proper use of therapeutic interventions/data collection are stressed. Effective oral and written communication, the roles of other members of the health care team, and the performance of therapeutic interventions/data collection procedures as recommended by the PT are addressed. Three hours lecture and 4 hours lab.

PTA 2528 CLINICAL PRACTICUM II
Prerequisites: PTA 2424, PTA 2415/l, PTA 2406/l. Co-requisites: PTA 2514/l, and PTA 2503. ten weeks of clinical internships focused on mastery of data collection and interventions for musculoskeletal, neurological, surgical, and medical conditions/injuries; safe/ethical practice under the direction of supervising PT; professional development; preparation of in-service; and case studies/presentations.

PTA 2424 CLINICAL PRACTICUM I
Prerequisites: PTA 2304, PTA 2315/l, PTA 2323. Co-requisites: PTA 2406/l, PTA 2415/l. Five-week clinical internship focusing on patient safety, handling techniques, gait training, vitals, implementation of modalities, therapeutic exercises, goniometry, posture assessment/treatment; muscle strength testing; ethical/legal practice; and documentation/communication.

PTA 2503 PTA SEMINAR
Prerequisites: PTA 2424, PTA 2415/l, PTA 2406/l. Co-requisites: PTA 2514/l and PTA 2528. Review of PTA program content through systematic study of PTA assessment skills, PTA treatment implementation, and professionalism for the physical therapist assistant. Licensure preparation activities; interview and resume preparation.

PTA 2514/L NEURO AND REHAB FOR PHYSICAL THERAPIST ASSISTANTS/LAB
Prerequisites: PTA 2424, PTA 2415/l, PTA 2406/l. Co-requisite: PTA 2528 and PTA 2503. Neuroanatomy; normal and abnormal development; medical, surgical and physical therapy management of neurological diseases/conditions; facilitation/inhibition techniques; PNF; motor control and
developmental sequence techniques; balance; orthotics; and functional and environmental data collection. Three hours lecture and two hours laboratory.

**POLITICAL SCIENCE**

**PSCI 2003 AMERICAN GOVERNMENT: NATIONAL**  
*ACTS Equivalent Course Number = PLSC 2003*  
Prerequisite: Pass BSTD 0613 with a grade of “C” or better or equivalent score on placement test. A survey of the American National government including the Constitution; structure and operation of the presidency in action.

**PSCI 2013 AMERICAN GOVERNMENT: STATE AND LOCAL**  
*ACTS Equivalent Course Number = PLSC 2103*  
Prerequisite: Pass BSTD 0613 with a grade of “C” or better or equivalent score on placement test. An overall examination of the institutions and operations on the state and local government level with special emphasis upon the structure and policies of the Arkansas political system.

**PRACTICAL NURSING**

**PNS 1101 PRACTICAL NURSING GERIATRICS**  
Prerequisite: Admission to LPN program. This course is designed to include an understanding of the aging process and the modification of nursing care to accommodate the older adult. Also included are lessons related to loss, grief, and death, as well as the mental health of older adults. This course will also discuss the growing problem of elder abuse.

**PNS 1102 PHARMACOLOGY I**  
Prerequisites: Admission to the LPN program. This course is designed to prepare the student nurse to safely and accurately prepare and administer drugs to the infant, child, and adult. Emphasis is placed on implication for nursing care. The course includes a brief review of math/conversions, introduction to pharmacology, methods of drug administration, along with formulas for calculating drug dosages, and side effects/adverse reactions of medication administration to observe for.

**PNS 1106 NURSING FUNDAMENTALS AND SKILLS**  
Prerequisites: Admission to the LPN program. This course is designed to provide practical nursing students with the fundamental principles, skills and attitudes required to demonstrate safe, competent care to patients at each stage of the human life cycle through theory taught in the classroom and practicum experience taught in a variety of clinical lab settings. This course will also include study of the basic structure of medical terms, including prefixes, suffixes, word roots, combining forms, plurals, pronunciation, spelling, and definitions, as well as medical abbreviations.

**PNS 1111 VOCATIONAL, LEGAL, AND ETHICAL ISSUES**  
Prerequisites: Admission to the LPN program. This course is designed to initiate personal and professional growth in nursing. The course will identify ethical, legal, and social responsibilities with patients, families, and co-workers. It will develop communication skills and vocational responsibilities of the practical nurse and care of patients at each stage of the human life cycle. This course will provide functional knowledge of professional nursing organizations on the local, state, and national level, and to identify methods to access local, state, and national health resources.

**PNS 1112 BODY STRUCTURE AND FUNCTION**  
Prerequisites: Admission to the LPN program. This course is designed for the first semester practical nursing student. It covers basic information necessary for a general understanding of the structure and
function of the human body. There are two basic themes throughout the course; the first is the relationship between structure and function and the second is homeostasis— the idea that each organ system is important in sustaining life and what happens when the balance is disturbed.

**PNS 1142 PRACTICUM I**  
(Three-Semester Day Programs) Prerequisites: Admission to the LPN program. This course is designed to reinforce the theory taught in the classroom. The focus is directed experiences in basic nursing principles, nursing of the geriatric patient, and legal and ethical concepts.

**PNS 1142 PRACTICUM IA**  
(Four-Semester Evening Program, spring)  
**PNS 1142 PRACTICUM IB**  
(Four-Semester Evening Program, fall) Admission to the LPN program. This course is designed to reinforce the theory taught in the classroom. The focus is directed experiences in basic nursing principles, nursing of the geriatric patient, and legal and ethical concepts.

**PNS 1202 MEDICAL SURGICAL NURSING I**  
(Four-Semester Evening Program, fall)  
**PNS 1204 MEDICAL SURGICAL NURSING I**  
(Three-Semester January Day, Four-Semester Evening Program, spring) Prerequisites: Admission to the LPN program and successful completion of all previous PN courses with a grade of “C” or higher. This course is designed to provide practical nursing students with the fundamental knowledge of the pathophysiology of disease processes and the appropriate critical thinking skills required to provide nursing interventions to care for adult patients with medical and/or surgical conditions that affect either one or multiple body systems.

**PNS 1212 PHARMACOLOGY II**  
Prerequisites: Admission to the LPN program and successful completion of all previous PN courses with a grade of “C” or higher. The course is designed to provide knowledge about drugs commonly used in the treatment of illnesses, including such information as usual dosage, expected outcomes, side effects/adverse reactions, contraindications, and points of observation following the administration of medications. This course involves the cardiac system and the medication associated with this particular system. The course also includes in-depth study and skills practice of intravenous therapy.

**PNS 1222 NURSING MOTHERS AND INFANTS**  
Prerequisites: Admission to the LPN program and successful completion of all previous PN courses with a grade of “C” or higher. This course includes the application of the principles of nursing care during the prenatal, labor, delivery, postpartum, and neonatal periods. Nutrition and pharmacology for mother and infant are included. Family planning, birth control, and fertility are discussed. This course provides the knowledge required to care competently and safely for the mother and infant client. Emphasis is placed on the use of the components of the nursing process when caring for these clients. Practicum experience shall include care of mother and infant.

**PNS 1232 NURSING CHILDREN**  
Prerequisites: Admission to the LPN program and successful completion of all previous PN courses with a grade of “C” or higher. This course is an introduction to the nursing of children. It includes a study of growth and development, disease conditions peculiar to children in all stages, the impact of illness on the child and family in both in-patient and out-patient setting, nursing care of the dying child, and provides an understanding of the effect of development on disease and illness in the in-patient and out-patient setting. This course also covers the signs and symptoms of child abuse, neglect, and maltreatment; the nurse’s
responsibility to report child abuse, neglect and maltreatment as a mandated reporter; and a general overview of Arkansas Act 703.

**PNS 1242 PRACTICUM II**  
(Three-Semester January Day Program)  
**PNS 1242 PRACTICUM IIA**  
(Four-Semester Evening, spring)  
**PNS 1243 PRACTICUM IIB**  
(Four-Semester Evening, fall)  
Prerequisites: Admission to the LPN program and successful completion of all previous PN courses with a grade of “C” or higher. This course is designed to reinforce the theory taught in the classroom which includes directed experiences in basic nursing principles, nursing of the geriatric patient, nursing of adults with medical surgical conditions, intermediate principles of pharmacology and introduction of intravenous therapy. Maternity and child health is also emphasized.

**PNS 1301 MENTAL HEALTH AND CARE OF THE MENTALLY ILL**  
Prerequisites: Admission to the LPN program and successful completion of all previous PN courses with a grade of “C” or higher. This course includes information concerning an introduction to common conditions of mental illness, prevention of those conditions, and the care of patients suffering from abnormal mental and emotional illnesses across the life span.

**PNS 1302 PHARMACOLOGY III**  
Prerequisites: Admission to the LPN program and successful completion of all previous PN courses with a grade of “C” or higher. This course includes an introduction to pharmacology, methods of administration, drugs commonly used in the treatment of illness, and such information as usually dosages, actions and uses of drugs, expected actions, side effects/adverse effects, contraindications, and points of observation following the administration of drugs. This course also includes the Nursing Process for different drug classes including premedication observations.

**PNS 1314 MEDICAL SURGICAL NURSING II**  
(Three-Semester January Day and Four-Semester Evening, spring)  
**PNS 1312 MEDICAL SURGICAL NURSING II**  
(Four-Semester Evening Program, fall)  
Prerequisites: Admission to the LPN program and successful completion of all previous PN courses with a grade of “C” or higher. This course is designed to provide practical nursing students with the fundamental knowledge of the pathophysiology of disease processes and the appropriate critical thinking skills required to provide nursing interventions to care for adult patients with medical and/or surgical conditions that affect either one or multiple body systems.

**PNS 1324 MEDICAL SURGICAL NURSING III**  
(Four-Semester Evening Program, fall) Prerequisites: Admission to the LPN program and successful completion of all previous PN courses with a grade of “C” or higher. This course is designed to provide practical nursing students with the fundamental knowledge of the pathophysiology of disease processes and the appropriate critical thinking skills required to provide nursing interventions to care for adult patients with medical and/or surgical conditions that affect either one or multiple body systems.

**PNS 1365 PRACTICUM III**  
(Three-Semester January Day Program) Prerequisites: Admission to the LPN program and successful completion of all previous PN courses with a grade of “C” or higher. This course is the final practicum in the practical nursing curriculum and is designed to reinforce the theory taught in the classroom for the senior level licensed practical nursing student. It includes directed experiences in basic nursing principles
for patients of all ages with a variety of medical, surgical and/or mental health conditions in a variety of clinical settings. The course includes team leading and critical thinking concepts.

**PNS 1343 PRACTICUM IIIA**
(Four-Semester Evening Program, spring) Prerequisites: Admission to the LPN program and successful completion of all previous PN courses with a grade “C” or higher. This course is designed to reinforce the theory taught in the classroom. It includes directed experiences in basic nursing principles, nursing of the geriatric patient, nursing of children, nursing of mother and infant, nursing of the mentally ill, nursing of adults with medical-surgical conditions, and nursing across the lifespan.

**PNS 1342 PRACTICUM IIIB**
(Four-Semester Evening Program, fall) Prerequisites: Admission to the LPN program and successful completion of all previous PN courses with a grade of “C” or higher. This course is designed to reinforce the theory taught in the classroom. It includes directed experiences in basic nursing principles, nursing of the geriatric patient, nursing of children, nursing of mother and infant, nursing of the mentally ill, nursing of adults with medical-surgical conditions, and nursing across the lifespan.

**PNS 1353 NCLEX PREPARATION AND PROFESSIONAL DEVELOPMENT**
Prerequisites: Admission to the LPN program and successful completion of all previous PN courses with a grade of “C” or higher. This course is designed to assist the student in understanding the qualities needed to advocate for the client in situations requiring leadership and management in day to day practice. This course will consist of other areas crucial for a novice nurse including: providing basic understanding of the art of delegation; providing the student the opportunity to develop a professional portfolio; strengthening job interviewing skills; and preparing for the NCLEX-PN.

**PNS 1402 PRACTICUM IVA**
(Four-Semester Evening Program, spring)
**PNS 1402 PRACTICUM IVB**
(Four-Semester Evening Program, fall)
Prerequisites: Admission to the LPN program and successful completion of all previous PN courses with a grade of “C” or higher. This course is the final practicum in the practical nursing curriculum and is designed to reinforce the theory taught in the classroom for the senior level licensed practical nursing student. It includes directed experiences in basic nursing principles for patients of all ages with a variety of medical surgical and/or mental health conditions in a variety of clinical settings. The course includes team leading and critical thinking concepts

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**PROCESS INSTRUMENTATION**

**IDEL 1304 SOLID STATE/ANALOG CIRCUITS**
Pre-requisite IDEL 1007. Classroom and lab instruction cover inductive, capacitive, and reactive circuits, filter and diode applications, power supply circuits, amplifier circuits, operational amplifiers, and thyristors. (3 hours lecture, 3 hours lab)

**IDEL 1504 BASIC DIGITAL TECHNOLOGY**
Pre-requisite/co-requisite: IDEL 1007. Basic Digital technology is a course designed to introduce students to the fundamental concepts being encountered in digital electronics. Students will learn from classroom and lab instruction. Topics covered will be numbering systems and codes used in digital circuits, basic logic gates, encoders and decoders, flip-flops, counters, and registers. (3 hours lecture, 3 hours lab)
**IDEL 1804 INTRODUCTION TO PROGRAMMABLE LOGIC CONTROLLERS**
Pre-requisite: IDEL 1007 or TECH 1043 (Basic Electricity) or permission of instructor. A course designed to familiarize students with ladder logic diagrams, wiring of PLC hardware components, and basic programming of discrete operations. These applications will involve motor starting, timer, counter, and sequencing in ladder logic diagrams. (3 hours lecture, 3 hours lab)

**IDEL 2403 TRANSDUCERS**
Pre-requisite: IDEL 1007. Theory and applications of photo-electric, temperature, motion, position detection, and other types of transducers are introduced. HMI (Human-Machine Interface software) will also be covered. (2 hours lecture, 2 hours lab)

**IDEL 2504 PLC PROCESS INSTRUMENTATION**
Pre-requisite: IDEL 1804. This course is a continuation of introduction to Programmable logic Controllers involving the interfacing of devices such as variable frequency drives, transducers, and PID controls as well as advanced arithmetic functions and digital and analog inputs and outputs. Troubleshooting techniques will be introduced. (3 hours lecture, 3 hours lab)

**IDEL 2604 PROCESS INSTRUMENTATION**
Pre-requisite: IDEL 1304. This course is structured around electronic process controls and various types of instrumentation interfaces. Topics covered will be closed loop and open loop process controls; feedback circuits that involve temperature, pressure, and flow characteristics; monitoring of process controls to determine stability, deviation, and other parameters. (3 hours lecture, 3 hours lab)

**IDEL 2703 MICROPROCESSOR FUNDAMENTALS**
Pre-requisite: IDEL 1504. This course is intended to introduce students to the architecture and operation of microprocessors. Students will learn from classroom and lab instruction. Topics covered will be the 68000 microprocessor, assembly level programming, typical memory interface, input and output interfacing, internal registers, buffers, and data transmission involved in microprocessors. (2 hours lecture, 2 hours lab)

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**PROCESS TECHNOLOGY**

**PTEC 1244 PROCESS TECHNOLOGY I: EQUIPMENT**
Prerequisites: PTEC 1113, BSTD 0413. This course provides instruction in the use of common process equipment. The student will identify process equipment components; use appropriate terminology to describe components of process equipment; describe basic functions of process equipment; and relate scientific principles associated with process equipment.

**PTEC 1133 PROCESS INSTRUMENTATION I**
Prerequisite: PTEC 1113, BSTD 0413. This course is the study of instruments and instrument systems used in chemical processing industry, including terminology, primary variables, symbols, control loops, and basic troubleshooting. Students will identify and explain the function of instruments used in the chemical processing industry; explain the relationship of process control elements in a control loop; and define and apply terms and symbols used in instrumentation.

**PTEC 1113 INTRODUCTION TO PROCESS TECHNOLOGY**
Prerequisite: BSTD 0603 this is the introduction to chemical and refinery plant operations. Topics include process technician duties, responsibilities and expectations; plant organizations; plant process and utility systems; and the physical and mental requirements of the process technician. The student will relate an overview of a typical process plant; identify process equipment; state the purpose of equipment; describe
safety, health, and environmental components; and describe the roles, responsibilities, and work environment.

**PTEC 1123 SAFETY, HEALTH AND ENVIRONMENT**
Prerequisite: BSTD 0314 this course covers the development of knowledge and skills to reinforce the attitudes and behaviors required for safe and environmentally sound work habits. Emphasis is placed on safety, health, and environmental issues in the performance of all job tasks and regulatory compliance issues. Students will list components of a typical plant safety and environmental program; describe the role of a process technician in relation to safety, health, and environment; and identify and describe safety, health, and environmental equipment uses.

**PTEC 1253 PRINCIPLES OF QUALITY**
Prerequisite: BSTD 0413 Pre or Co-requisite: CSCI 1003 this is the study of the background and application of quality concepts. Topics include team skills, quality tools, economics and continuous improvement. Students will define terms associated with quality systems; demonstrate team skills; and apply principles and tools of quality to process systems.

**PTEC 2133. PROCESS INSTRUMENTATION II**
Prerequisite PTEC 1133 this course continues the study of instruments and instrument systems used in the chemical processing industry. Issues relating to troubleshooting, annunciator systems and control systems are addressed. Attention is given to digital control, programmable logic controls, and distributed control systems. Students will become familiar with power supply issues, identifying instrumentation malfunctions, and emergency shutdown procedures.

**PTEC 2364 PROCESS TECHNOLOGY II: SYSTEMS**
Prerequisites: PTEC 1113, PTEC 1123, PTEC1133, PTEC 1244, CHEM 1064 or 1024, and PHYS 2024 or PHYS 1114. This is the study of the interrelation of process equipment and process systems including related scientific principles. Students will arrange process equipment into basic systems; describe the purpose and function of specific process systems; explain how factors affecting process systems are controlled under normal conditions; and recognize abnormal process conditions.

**PTEC 2474 PROCESS TECHNOLOGY III: UNIT OPERATIONS**
Prerequisites: PTEC 2364. This course combines systems into operational processes with emphasis on operations under various conditions. Topics include typical duties of an operator. Students will combine systems into operating processes; describe a process technician’s role during plant operations; write operating procedures; and demonstrate application of operating procedures.

**PTEC 2484 PROCESS TROUBLESHOOTING**
Prerequisite: PTAC 2364 this course provides instruction in the different types of troubleshooting techniques, procedures, and methods used to solve process problems. Topics include application of data collection and analysis, cause-effect relationships, and reasoning. Students will explain steps in troubleshooting models; demonstrate use of troubleshooting tools; and apply troubleshooting techniques to process problems.

**PTEC 2193 INTERNSHIP I**
Prerequisites: PTEC 1113, PTEC 1123, PTEC1133, PTEC 1244, CHEM 1064 or 1024, and PHYS 2024 or PHYS 1114 and approval of instructor. This is a basic or intermediate work-based instruction in a local industry that helps students synthesize new knowledge, apply previous knowledge or gain experience managing the workflow. Practical experience is simultaneously related to theory. Direct supervision is provided by the faculty and the work supervisor. Students will apply the theory, concepts and skills involving specialized materials, tools, equipment, procedures, regulations, and laws. Students will
demonstrate legal and ethical behavior, safety practices, interpersonal and teamwork skills and appropriate written and verbal communication skills using the terminology of the occupation and the business/industry. Internships may be paid or unpaid depending on company policy and students will be expected to be on site a minimum of 160 clock hours.

**PTEC 2293. INTERNSHIP II**
Prerequisites: PTEC 2193 and approval of instructor. This is an intermediate or advanced work-based instruction in a local industry that helps students synthesize new knowledge, apply previous knowledge or gain experience managing the workflow. Practical experience is simultaneously related to theory. Direct supervision is provided by the faculty and the work supervisor. Students will apply the theory, concepts and skills involving specialized materials, tools, equipment, procedures, regulations, and laws. Students will demonstrate legal and ethical behavior, safety practices, interpersonal and teamwork skills and appropriate written and verbal communication skills using the terminology of the occupation and the business/industry. Internships may be paid or unpaid depending on company policy and students unless the instructor determines it is the student’s best interest to remain with the company utilized in the first internship. Students will be expected to be on site a minimum of 160 clock hours. An attempt will be made to place the student in a different company or department than the student experienced in PTEC 2193.

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**PSYCHOLOGY**

**PSYC 2003 GENERAL PSYCHOLOGY**
*ACTS Equivalent Course Number = PSYC 1103*
Prerequisite: Pass BSTD 0613 with a grade of “C” or better or equivalent score on placement test. An introduction to the scientific study of behavior and mental processes. Topics include, but are not limited to, the scientific method; biological basis of behavior; physical-social-emotional-and cognitive development, learning, and personality; psychological disorders; psychotherapy; and social interaction. Both research and applications to our everyday lives will be studied.

**PSYC 2203 ABNORMAL PSYCHOLOGY**
Prerequisite: Pass PSYC 2003 with a grade of “C” or better. An introduction to the description, causes, and treatment of abnormal behavior patterns. Topics include, but are not limited to, the scientific method; historical and contemporary perspectives on abnormal behavior; classification and assessment of abnormal behavior; and major psychological disorders and their treatment. Both research and applications to our everyday lives will be studied.

**PSYC 2223 DEVELOPMENTAL PSYCHOLOGY**
*ACTS Equivalent Course Number = PSYC 2103*
Prerequisite: Pass PSYC 2003 with a grade of “C” or better. An introduction to how humans change and remain the same from conception to death. Topics include, but are not limited to, the scientific method; theories of development; heredity and environment; conception and prenatal development; and the biosocial, cognitive, and psychosocial development across all stages of life. Both research and applications to our everyday lives will be studied.

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**RADILOGIC TECHNOLOGY**

**RADT 1214 POSITIONING PROCEDURES I**
Radiographic positioning of the chest, abdomen, gastrointestinal tract, and renal systems. Emphasis on evaluating patient condition and pathologies to obtain a diagnostic radiograph. Laboratory is required with this course.
RADT 1001 INTRODUCTION TO RADIOGRAPHY  
Prerequisite: BSTD 0613 and BSTD 0413. Co-requisite: BSTD 0513. Includes an overview of the Medical Imaging profession. The RT program requirements and the application/admission process are also included.

RADT 1002 ORIENTATION/CLINICAL EDUCATION I  
Introduction to the clinical setting. Directly supervised students assist and perform examinations covered in RADT 1214.

RADT 1101 MEDICAL TERMINOLOGY FOR RADIOGRAPHERS  
An introduction to the language of Radiologic technology. Emphasis is on the techniques of medical word building and basic elements of medical words and their pronunciation.

RADT 1102 PATIENT CARE AND PROTECTION I  
Principles of care for routine and emergency patients. Infection control and medication administration will be emphasized.

RADT 1222 IMAGE PROCESSING AND PROCEDURES  
A comprehensive study of image production and processing. Composition and care of films and screens will be included.

RADT 1113 RADIOGRAPHIC EXPOSURE  
Prerequisite: RADT 2202. An in depth study of factors influencing radiographic image quality.

RADT 1122 PATIENT CARE AND PROTECTION II  
Continuation of principles of routine and emergency patient care. Emphasis will be placed on ethics and law, human diversity, communication, and patient education. Basic pharmacology will also be covered.

RADT 1223 CLINICAL EDUCATION II  
Prerequisite: RADT 1214. Continued supervised performance in previous exams studied along with procedures covered in RADT 1304.

RADT 1304 POSITIONING PROCEDURES II  
Prerequisite: RADT 1214. Radiographic positioning of the upper and lower extremities, spine, and bony thorax. Conditions or pathologies will also be covered. Laboratory required.

RADT 1332 CLINICAL EDUCATION III  
Prerequisite: RADT 1223. Continued supervised performance in previous examinations covered in RADT 1214 and RADT 1304.

RADT 1423 POSITIONING PROCEDURES III  
Prerequisite: RADT 1304. Radiographic positioning of the head, pelvis, and basic portable positioning.

RADT 2002 FILM EVALUATION  
Prerequisite: RADT 1113. Comprehensive analysis of the diagnostic radiographic image. Emphasis on recognizing and solving image problems.

RADT 2013 ADVANCED CLINICAL EDUCATION I  
Prerequisite: RADT 1332. Includes advanced and elective rotations. Continued refinement of procedures learned in RADT 1214, RADT 1304 and RADT 1424 with indirect supervision.
RADT 2022 BASIC COMPUTED TOMOGRAPHY
Prerequisite: RADT 1423 or ARRT Registered. This course is designed to provide entry-level radiography students with the basic principles of computed tomography (CT) imaging, and the knowledge base necessary to perform standard CT procedures. Consideration is given to the evaluation of optimal diagnostic images. This course is also provided as an opportunity for continuing education and registry preparation for practicing technologists.

RADT 2202 RADIATION PHYSICS
Prerequisite: RADT 1222. Study of the physics of Radiologic technology. Emphasis on x-ray production and equipment.

RADT 2023 ADVANCED CLINICAL EDUCATION II
Prerequisite: RADT 2023. Includes advanced elective rotations. Continued refinement of procedures mastered in RADT 1214, RADT 1304, and RADT 1424.

RADT 2032 SPECIAL PROCEDURES
Prerequisite: RADT 1423. An in-depth study of the more specialized examinations performed in diagnostic radiology.

RADT 2042 IMAGING MODALITIES
Prerequisite: RADT 2202. A study of the production of images in radiography and fluoroscopy, and special procedures.

RADT 2301 QUALITY ASSURANCE
Prerequisite: RADT 1113. Methods and procedures in radiographic quality control. Emphasis on evaluation of data from quality assurance testing procedures.

RADT 2303 SEMINAR II
Prerequisite: RADT 2403 Overview of radiography. Emphasis on application of knowledge.

RADT 2312 ADVANCED CLINICAL EDUCATION III
Prerequisite: RADT 2023. Completion of trauma radiology required, along with final demonstration of entry-level clinical skills for all covered procedures.

RADT 2313 RADIATION BIOLOGY

RADT 2403 SEMINAR I
Prerequisite: RADT 1423. Study of pathological and trauma conditions confronted in radiography. Emphasis on the proper treatment of the patient.

REGISTERED NURSING

RNSG 2119: NURSING PROCESS I
Builds on the foundational knowledge of the LPN/LVN with a focus on the RN scope of practice. The course provides acquisition of knowledge about advanced concepts of nursing applied to the care of patients experiencing chronic, acute, stable, and unstable conditions requiring medical/surgical and mental health interventions. Builds on medical/surgical nursing theory, mental health nursing theory, communication, collaboration, caring, and critical thinking/clinical reasoning necessary for safe, patient-centered nursing care to developmentally and culturally diverse adult and elderly patients on the medical/
surgical and mental health units. Incorporates evidence-based practice, quality improvement, professional standards, and legal and ethical responsibilities of the professional nurse. Application of course content occurs in a variety of clinical settings provided in the co-requisite nursing course, RNSG 2123. Spring only. (9 hrs. credit, 9 hrs./wk. lecture)

**RNSG 2123: NURSING PRACTICUM I**
Applies advanced concepts of nursing to the care of patients experiencing chronic, acute, stable, and unstable conditions requiring medical/surgical and mental health interventions. Applies medical/surgical nursing theory, mental health nursing theory, communication, collaboration, caring, and critical thinking/clinical reasoning necessary for safe, patient-centered nursing care to developmentally and culturally diverse adult and elderly patients on the medical/surgical and mental health units. Incorporates evidence-based practice, quality improvement, professional standards, and legal and ethical responsibilities of the professional nurse into the care of patients in a variety of healthcare settings. Demonstrates the application of knowledge and skills learned in the co-requisite nursing course, RNSG 2119. Spring only. (3 hrs. credit, 9 hrs./wk. practicum)

**RNSG 2113 MATH FOR NURSES**
Prerequisite: Pass BSTD 0413 with grade of “C” or better. Provides instruction in dosage calculation using ratio to proportion as well as other means of calculation related to medication. Topics include but are not limited to: interpretation of drug labels, syringe types, conversions, Roman numerals, reconstitution and apothecaries, mixing medications, IV flow rates, drip rates, interpretation of physician orders and transcribing to Medication Administration Records, dispensing, proper documentation of medications, the Six Rights of Medication Administration, and military time. Three hours lecture.

**RNSG 2216: NURSING PROCESS II**
Builds on content learned in Nursing Process I with application of additional knowledge focused on safe, quality, patient-centered care to a diverse patient population focusing on wellness and acute conditions affecting the childbearing family, newborn, women’s health, and pediatric patients. Introduces maternal/child and pediatric nursing theory, communication, collaboration, caring, and critical thinking/clinical reasoning necessary for safe, patient-centered nursing care to developmentally and culturally diverse families and children. Incorporates evidence-based practice, quality improvement, professional standards, and legal and ethical responsibilities of the professional nurse into the care of the child-bearing family and children. Application of course content occurs in a variety of clinical settings provided in the co-requisite nursing course, RNSG 2223. Summer only (6 hrs. credit, 8 hrs./wk. lecture)

**RNSG 2223: NURSING PRACTICUM II**
Applies concepts learned in RNSG 2216 to provide safe, quality, patient-centered care to a diverse patient population focusing on wellness and acute conditions affecting the childbearing family, newborn, women’s health, and pediatric patients. Applies maternal/child and pediatric nursing theory, communication, collaboration, caring, and critical thinking/clinical reasoning necessary for safe, patient-centered nursing care to developmentally and culturally diverse families and children. Incorporates evidence-based practice, quality improvement, professional standards, and legal and ethical responsibilities of the professional nurse into the care of the child-bearing family and children in a variety of healthcare settings. Demonstrates the application of knowledge and skills learned in the co-requisite nursing course, RNSG 2216. Summer only (3 hrs. credit, 9 hrs./wk. practicum)

**RNSG 2323: NURSING PRACTICUM III**
Applies concept learned in RNSG 2318 to provide safe, quality, patient-centered care to a diverse patient population focusing on complex medical/surgical conditions of the high acuity patient and family. Applies nursing theory of patients with high acuity, complex, and multisystem conditions, communication, collaboration, caring, and critical thinking/clinical reasoning necessary for safe, patient-
centered nursing care to developmentally and culturally diverse adult and elderly patients. Incorporates evidence-based practice, quality improvement, professional standards, and legal and ethical responsibilities of the professional nurse into the care of patients in a variety of healthcare settings. Demonstrates the application of knowledge and skills learned in the co-requisite nursing course, RNSG 2318. Fall only. (3 hrs. credit, 9 hrs./wk. practicum)

RNSG 2311: NCLEX-RN PREPARATION
This online course provides a comprehensive review of all nursing content taught in the program in preparation for taking the NCLEX-RN. The course also focuses on preparing students as entry-level Registered Nurses. Students review content, complete an online NCLEX review course, take a standardized exam, and develop an action plan for study for the NCLEX-RN. Fall only. (1 hr. credit, 1 hr./wk. lecture)

RNSG 2318: NURSING PROCESS III
Continues to build on the previous nursing courses, focusing on complex conditions of the high acuity patient and family. Builds on medical/surgical nursing theory, mental health concepts, maternal/child concepts, communication, collaboration, caring, and critical thinking/clinical reasoning necessary for safe, patient-centered nursing care to developmentally and culturally diverse patients across the lifespan experiencing high acuity, complex, and multisystem conditions. Incorporates evidence-based practice, quality improvement, professional standards, and legal and ethical responsibilities of the professional nurse as applied in the acute care and high acuity settings. Application of course content occurs in a variety of clinical settings provided in the co-requisite nursing course, RNSG 2323. Fall only. (8 hrs. credit, 8 hrs./wk. lecture).

RESPIRATORY THERAPY

RESP 1001 INTRODUCTION TO RESPIRATORY THERAPY
Prerequisite: Completion of all basic core courses. This course introduces the student to respiratory care as a profession and the roles and responsibilities of the respiratory therapist in today’s health care environment. Course content will include the history of the profession as well as current roles, future trends, and didactic and clinical requirements. Lecture only.

RESP 2003 CARDIOPULMONARY PHYSIOLOGY AND PATHOPHYSIOLOGY
Prerequisite: Admission into the professional program and completion of all professional Respiratory therapy courses with a grade of “C” or higher. This course provides an in-depth study of the coronary, pulmonary and renal anatomy and physiology during development to adult life. Emphasis is placed on the heart-lung relationship within the context of ventilation, gas exchange physiology, acid-base regulation, cardiopulmonary compensatory mechanisms and the relationship of the renal system in regulation of these physiological activities. Lecture only.

RESP 2013 PATIENT ASSESSMENT
Prerequisite: Admission into the professional program and completion of all professional Respiratory therapy courses with a grade of “C” or higher. This course prepares the student for patient care encounters. Content is focused on interviewing and assessment skills including medical terms, acceptable abbreviations, proper charting, data collection and analysis. includes, but is not limited to vital signs, breath sound differentiation, heart sound interpretation, blood gas values and interpretation, PFT’s, X-ray interpretation, and basic lab results. The student will be introduced to various diagnostic equipment and testing procedures. The role of the Respiratory therapist as a member of the Rapid Response team/Code Blue team is covered. Lecture and lab.
RESP 2112 CARDIOPULMONARY PHARMACOLOGY AND DYSRHYTHMIA
Prerequisite: Admission into the professional program and completion of all professional Respiratory therapy courses with a grade of “C” or higher. This course is designed to provide the student with a strong foundation of the drugs presently used in respiratory care treatments and those given in medical care that effect the cardiopulmonary system. This course includes the principles of drug action within the cardiopulmonary system, the basics of drug administration, and standard drug calculations. Demonstrated competence of dosage calculations and drug actions/interactions are required for successful completion of this course. Lecture only.

RESP 2113 RESPIRATORY EQUIPMENT
Prerequisite: Admission into the professional program and completion of all professional Respiratory therapy courses with a grade of “C” or higher. This course introduces the student to equipment and basic principles of physics used in the delivery, management, and evaluation of respiratory care. Content includes medical gas storage and therapy, infection control, airway management, bronchial hygiene and safe transport. Students are introduced to safe initiation and management of mechanical ventilation along with alternative ventilation and sleep devices. Lecture and lab.

RESP 2122 RESPIRATORY DISEASE PATHOLOGY I
Prerequisite: Admission into the professional program and completion of all professional Respiratory therapy courses with a grade of “C” or higher. This course will introduce the student to the various respiratory disease processes and their clinical manifestations through review of patient data, clinical presentation, basic laboratory tests, respiratory testing, and patient symptoms. Emphasis will be on the role of the Respiratory therapist in the assessment, recognition and treatment of common pulmonary diseases. Lecture only.

RESP 2123 THERAPEUTIC ASSESSMENT I
Prerequisite: Admission into the professional program and completion of all professional Respiratory therapy courses with a grade of “C” or higher. This course is designed to strengthen the assessment of therapy acquired in basic skills classes. This course includes certification in advanced cardiac life support (ACLS) and a laboratory component that requires students to satisfactorily complete skills competencies prior to program advancement. Lecture and lab.

RESP 2133 RESPIRATORY BASIC SKILLS
Prerequisite: Admission into the professional program and completion of all professional Respiratory therapy courses with a grade of “C” or higher. This course provides a basic foundation for students to build the knowledge, skills and attitudes that are required as a respiratory therapist, and for success in the program. Course content includes professional etiquette, ethics, HIPPA and confidentiality, departmental organization, professional organizations, infection control, and blood-borne pathogens. The course will also focus on acquiring all necessary documentation, testing and inoculations needed for participation in clinical rotations. Health Provider Basic life Support Certification is included. This course will also be an orientation to respiratory care at area hospitals. Lecture and lab.

RESP 2223 CLINICAL PRACTICE I
Prerequisite: Admission into the professional program and completion of all professional Respiratory therapy courses with a grade of “C” or higher. This course provides students the opportunity to apply previous learning, principles of physics, anatomy and physiology, patient assessment, basic equipment and testing, techniques in a clinical care settings and alternate sites. Sites may include long term care facilities, pulmonary rehab, the home, sleep labs, ambulance services, hospice, physician offices and sub-acute specialty units. Principles of interdisciplinary team work and written and oral patient communication will be emphasized.
RESP 2512 NEONATAL/PEDIATRIC RESPIRATORY CARE
Prerequisite: Admission into the professional program and completion of all professional Respiratory therapy courses with a grade of “C” or higher. This course is designed to introduce the respiratory care student to a basic understanding of neonatal and pediatric respiratory care including the physiologic development, basic assessment, common respiratory and cardiac abnormalities, and mechanical ventilation. Focus will be on assessment of cardiopulmonary status, delivery and monitoring of therapeutics, and evaluation of responses. Lecture only.

RESP 2522 CRITICAL CARE
Prerequisite: Admission into the professional program and completion of all professional Respiratory therapy courses with a grade of “C” or higher. Emphasis will be placed on physical assessment, acting as an assistant to the physician, troubleshooting airway emergencies, and hemodynamics. Lecture and lab.

RESP 2523 MECHANICAL VENTILATION
Prerequisite: Admission into the professional program and completion of all professional Respiratory therapy courses with a grade of “C” or higher. The content of this course focuses on all aspects of mechanical ventilation encountered in all settings. The areas covered include initiation of mechanical ventilation, ventilator selection, mode selection, patient monitoring, and management, evaluation of effectiveness, weaning from ventilation, and discontinuance. This course includes a laboratory component that requires students to satisfactorily complete skills competencies prior to program advancement. Lecture and lab.

RESP 2532 HOME CARE AND REHABILITATION
Prerequisite: Admission into the professional program and completion of all professional Respiratory therapy courses with a grade of “C” or higher. This course will prepare the student to deliver respiratory therapy, patient education/health education, and to facilitate disease prevention. Students will acquire knowledge and skills in the focus areas of pulmonary rehab, home care, and various sub-specialty areas of respiratory care. The role of the Respiratory therapist in disaster response is explored. Lecture and lab.

RESP 2542 RESPIRATORY DISEASE PATHOLOGY II
Prerequisite: Admission into the professional program and completion of all professional Respiratory therapy courses with a grade of “C” or higher. Continuation of Respiratory Disease Pathology I, RESP 2122. Lecture only.

RESP 2543 CLINICAL PRACTICE II
Prerequisite: Admission into the professional program and completion of all professional Respiratory therapy courses with a grade of “C” or higher. This clinical experience provides students the opportunity to further synthesize all respiratory care learning along with a more expanded knowledge base and critical care skill set to care for complex medical patients across the life span in clinical care setting including patients on mechanical ventilation in critical care units. Students will competently initiate, deliver, monitor, evaluate effectiveness and modify respiratory plans of care and respiratory therapeutics.

RESP 2553 THERAPEUTIC ASSESSMENT II
Prerequisite: Admission into the professional program and completion of all professional Respiratory therapy courses with a grade of “C” or higher. This course allows reinforcement and application of previously learned knowledge, skills and attitudes relevant to the practice of quality respiratory care. Emphasis will be on the further development of critical thinking skills, clinical judgment and effective decision making that will promote positive patient outcomes. Students will be given opportunities to further explore both acute and chronic respiratory diseases from a problem-based/case study learning approach, developing, evaluating, and modifying respiratory plans of care. Lecture only.
RESP 2612 PROFESSIONAL DEVELOPMENT
Prerequisite: Admission into the professional program and completion of all professional Respiratory therapy courses with a grade of “C” or higher. The content of this course focuses on employment skills, professional skills, and preparation for the national registry examination. This course utilizes Kettering’s recognized preparatory course to prepare for the CRT and RRT examinations. Also included are the legal and moral aspects of the respiratory care profession. The comprehensive NBRC, CRT, and RRT Self-Assessment Examination must be successfully completed at the end of this course in order to exit the program. Lecture only.

RESP 2614 CLINICAL PRACTICE III
Prerequisite: Admission into the professional program and completion of all professional Respiratory therapy courses with a grade of “C” or higher. This clinical experience allows the student to synthesize their knowledge base of neonatal and pediatric development and respiratory care by gaining experience in the NICU and PICU settings. Students will further refine oral and written communication with patients, families, and the health care team.

Sociology

SOC 2003 INTRODUCTION TO SOCIOLOGY
ACTS Equivalent Course Number = SOCI 1013 Prerequisite: BSTD 0613. An introduction to the theories, concepts, and basic principles used in the study of group life, social institutions, and social processes. The student will demonstrate understanding of sociological perspective; sociological theories and methods; social institutions; culture and society; socialization; groups and organizations; social inequality, and globalization.

SOC 2033 MARRIAGE AND THE FAMILY
Prerequisite: BSTD 0613 A study of the problems of courtship, marriage, parenthood, and the family.

SouthArk Success

SAS 0103 SOUTHARK SUCCESS
This student survival course is designed to increase the student’s success in college. A course required for all first-time, full-time, degree-seeking freshmen AND students who have tested into two or more Basic Studies courses, SAS covers materials needed to be successful in college: time management, financial literacy, test taking, note taking, study techniques, personal growth and responsibility, and college customs.

Spanish

SPAN 1014, ELEMENTARY SPANISH I
ACTS Equivalent Course Number = SPAN 1013

SPAN 1024, ELEMENTARY SPANISH II
ACTS Equivalent Course Number = SPAN 1023 A functional approach to the acquisition of the four-fold communication skills: intensive oral drill, analysis of basic patterns, conversation, application of the essentials of grammar in oral and written exercises, and simple reading assignments. Regular practice required. 1024 has the prerequisite passing SPAN 1014 with a grade of “C” or better.
Speech

SPCH 1113. PRINCIPLES OF SPEECH
ACTS Equivalent Course Number = SPCH 1003 Principles of effective speaking; emphasis on both speaking techniques and listening.

Surgical Technology

SURG 1002 INTRODUCTION TO HEALTH SCIENCES
Prerequisites: Admission to the SouthArk Surgical technology program. All basic studies courses must be completed prior to admission to program. Co-requisites: SURG 1102, 1106, 1123, and 1132. This course is designed to introduce the student to the health care delivery system and emphasizes the role and responsibility of health care team members. Discussion will also include the history and scope of practice of the surgical technologist, factors influencing the delivery of service, relationships and communication with other health care providers, professional behaviors; legal and ethical issues related to health care; and basic overview of computer skills.

SURG 1102 PRINCIPLES OF PHARMACOLOGY AND ANESTHESIA
Prerequisites: Admission to the SouthArk Surgical technology program. All basic studies courses must be completed prior to admission to program. Co-requisites: SURG 1002, 1106, 1123, and 1132. This course introduces the principles of pharmacologic agents used in the perioperative setting. It includes weights and measures, dosage calculations, and stresses drug identification, handling, and usage.

SURG 1106 FUNDAMENTALS OF SURGICAL TECHNOLOGY
Prerequisites: Admission to the SouthArk Surgical technology program. All basic studies courses must be completed prior to admission to program. Co-requisites: SURG 1002, 1102, 1123, and 1132. This course introduces the student to the fundamentals of surgical technology. Topics included but not limited to are the physical environment of the surgical suite; roles of the surgical team including the surgical technologist; basic skills needed to meet physical, spiritual, and psychological needs of the surgical patient; asepsis including preparation, sterilization, and disinfection of supplies used in surgery; and basic case preparation, including creation and maintenance of the sterile field, draping principles, instrumentation, sutures, OR furniture and supplies, specialty equipment; and safety in the surgical environment.

SURG 1123 FUNDAMENTALS OF SURGICAL TECHNOLOGY SKILLS LABORATORY
Prerequisites: Admission to the SouthArk Surgical technology program. All basic studies courses must be completed prior to admission to program. Co-requisites: SURG 1002, 1102, 1106, and 1132. Student will observe and demonstrate the principles and procedures taught in SURG 1106 in the laboratory setting. This experience provides the student the opportunity to practice skills in a non-patient contact environment prior to the clinical experience.

SURG 1132 SURGICAL TECHNOLOGY PRACTICUM I
Prerequisites: Admission to the SouthArk Surgical technology program. All basic studies courses must be completed prior to admission to program. Co-requisites: SURG 1002, 1102, 1106, and 1123. Student is introduced to the health care facility. The course includes supervised clinical experiences which will include assignment to cases which will involve care and use of instruments and surgical supplies, sterilization and disinfection, and multiple opportunities to scrub for basic surgical procedures.

SURG 1202 SURGICAL PROCEDURES I
Prerequisites: SURG 1002, 1102, 1106, 1123 and 1132, and 1206. Co-requisites: SURG 1222, and 1216. This course prepares the student for surgical procedures with correlation of surgical anatomy,
pathophysiology, and emphasis placed on the knowledge of the operative sequence throughout surgical procedures. Procedures included are general surgery, obstetric and gynecologic, and ophthalmic.

**SURG 1206 PERIOPERATIVE TECHNIQUES AND PROCEDURES**
Prerequisites: SURG 1002, 1102, 1106, 1123, and 1132. Co-requisites: SURG 1222, and 1216. This course is a continuation of SURG 1106 with study of advanced principles and techniques of surgical procedures. Topics included but not limited to are aseptic technique and infection control practices; duties of the circulator and scrub technologist; advanced instrumentation and suture materials; wound healing and hemostasis; pre-operative, intraoperative, and postoperative care; diagnostic procedures and tests; basic overview of biomedical sciences including electricity, physics, and robotics; overview of endoscopic procedures and techniques; and surgical complications.

**SURG 1216 SURGICAL TECHNOLOGY PRACTICUM II**
Prerequisites: SURG 1002, 1102, 1106, 1123, and 1132. Co-requisites: SURG 1206, 1222, and 1202.
This course is a continuation of Surgical technology Practicum I with student advancing to moderately complex surgical cases. An advanced level of proficiency is achieved in all areas of the operating room.

**SURG 1222 PERIOPERATIVE TECHNIQUES AND PROCEDURES SKILLS LABORATORY**
Prerequisites: SURG 1002, 1102, 1106, 1123, and 1132. Co-requisites: 1206, 1202, and 1216. Student will observe and demonstrate the principles and procedures taught in SURG 1206 in the laboratory setting. This experience provides the student the opportunity to practice skills in a non-patient contact environment prior to the clinical experience.

**SURG 1302 SURGICAL PROCEDURES II**
Prerequisites: SURG 1002, 1102, 1106, 1123, 1132, 1206, 1222, 1202, and 1216. Co-requisites: 1305.
This course prepares the student for surgical procedures with correlation of surgical anatomy, pathophysiology, and emphasis placed on the knowledge of the operative sequence throughout surgical procedures. Procedures included are ENT, plastic and reconstructive procedures, genitourinary, and orthopedics.

**SURG 1305 SURGICAL TECHNOLOGY PRACTICUM III**
Prerequisites: SURG 1002, 1102, 1106, 1123, 1132, 1206, 1222, 1202, 1216. Co-requisites: SURG 1302 and 1322. This course is a continuation of surgical technology Practicums I and II with student advancing to a functional role in all subspecialty areas of the operating room.

**SURG 1322 SURGICAL PROCEDURES III**
Prerequisites: SURG 1002, 1102, 1106, 1123, 1132, 1206, 1222, 1202, 1216, and 1302. Co-requisites: SURG 1305. This course prepares the student for surgical procedures with correlation of surgical anatomy, pathophysiology, and emphasis placed on the knowledge of the operative sequence throughout surgical procedures. Procedures included are cardiothoracic, peripheral vascular, and neurosurgical.

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**TECHNOLOGY**

**TECH 1003 TECHNICAL MATHEMATICS**
Prerequisite: BSTD 0413 or consent of the instructor. This course is a general survey of applied mathematics beginning with a review of whole numbers, common fractions, and decimals and continuing through basic algebra and trigonometry. Emphasis is practical mathematics in various disciplines of technology.
TECH 1203 INDUSTRIAL SAFETY
Prerequisite: BSTD 0603 or consent of the instructor. An introductory course dealing with methods and programs utilized by industry to prevent injury and fatalities. This course covers mandatory safety training, interpretation of warning labels and signs, OSHA, industrial hazards and how to avoid them. This course also emphasizes personal responsibility for safety. Other topics include crane and hoisting equipment, chain and wire rope slings, machine guarding, electrical hazards, low- and high-pressure boiler safety, hydraulic/pneumatic system safety procedures, and equipment lock-out procedures. (3 hours lecture)

TECH 2111, 2112, 2113, 2114 SELECTED TOPICS IN INDUSTRY
Prerequisite: Approval of industry affiliate. A survey of various topics within the field of industry to meet specialized needs. Credit varies depending upon length of study. (One to four semester hours)

TECH 2614 INTERNSHIP
The Career and technical Education internship is designed to offer students a purposeful experience in their chosen career path. The internship is an individualized learning experiences and a training plan is created for each student in conjunction with the internship site to provide experiences related to the skills and knowledge covered in the students program of study. Onsite evaluations of the student will be conducted by the facility to ensure quality work. (4 credit hours, 120 contact hours)

TECH 2001 SPECIAL TOPICS
Co-requisite: Second semester sophomore standing. Each student will be assigned a design project related to the course work completed. A complete design analysis must be submitted and the project will be constructed and tested. (3 hours lab)

TECH 2003 WORK-BASED LEARNING
Prerequisite: instructor and division chair approval prior to start of semester. Second semester sophomore standing. Work-based learning is a comprehensive treatment of relevant work experience related to the student’s major field of study. It includes cooperative education, apprenticeships, extended job shadowing, internships, and other systematic planned work experience. Faculty and employers work together with students to ensure the relationship between classroom instruction and work experience.

THEATRE

THEA 1103 INTRODUCTION TO THEATRE
Prerequisite: Pass BSTD 0613 with a grade of “C” or better or an equivalent score on the placement test. Designed for theatre majors, this course offers a survey of theatre arts. It includes a brief outline of theatre history and a more detailed study of the structure of dramatic literature, as well as a study of the elements of a theatrical production. Special emphasis is placed on the attendance of live stage productions.

THEA 2003 THEATRE APPRECIATION
ACTS Equivalent Course Number = DRAM 1003 (For non-theatre majors)
Prerequisite: Pass BSTD 0613 with a “C” or better or equivalent score on placement test. This course is designed to help students develop an awareness and an appreciation of theatre art and its place in contemporary human culture. It incorporates the study of theatrical styles, history, theory, and live and recorded performances.

THEA 2633 Acting I
Prerequisite: THEA 1103. This course provides an introduction to the art of acting and explores the essentials of movement, pantomime, and characterization.
THEA 2643 ACTING II
Prerequisite: THEA 2633. This is a continuation of study in Acting I with a focus on building the student’s repertoire for audition purposes.

THEA 1223 MAKEUP
No Prerequisite. This course is a practical guide to the theory and practice of theatrical makeup. Students will become familiar with the basic skills of stage makeup and application.

THEA 1323 COSTUMING
No prerequisite. This course is an introduction to basic costume design and construction, including basic machine and hand sewing, commercial pattern usage, alterations, and garment production.

THEA 2123 DIRECTING
This course will demonstrate the principles of organizing and directing a film or video production. Theory and practice of aesthetic and practical skills will be develop, direct, and produce live and taped mobile video programming.

THEA 1023 THEATRE PRODUCTION I
Open to all students. One-to-two-act major productions will be staged; students will be required to work onstage and off.

THEA 2013 THEATRE PRODUCTION II
Continuation of theatre lab I

THEA 2023 THEATRE PRODUCTION III
Continuation of theatre lab II

Welding Technology

WLD 2114/L SMAW II WELDING
Prerequisite: WLD 1114 or consent of instructor. The course covers the practical application of SMAW equipment by welding AWS certification tests in all positions on steel plate and steel pipe. The student will also gain knowledge of the tools used to weld and prepare pipe of various diameters. Upon completion of this course, the student is required to pass at least one AWS certification test on plate or pipe by a guided bend test or x-ray. (2 hours lecture, 3 hours lab)

WLD 1214/L GMAW I WELDING (MIG) LAB
The study of the principles and procedures behind Gas Metal Arc Welding. The course will cover electrode classifications as well as welding machine characteristics, and help the student understand the application behind GMAW welding by making surface, fillet, and some groove welds in various positions. This course will also give the student an opportunity to take an AWS 1G-certification test on steel plate. During the course, the student will also learn how to properly set up and use an arc gouger, and be able to perform certain tasks with it. (1-hour lecture, 6 hours lab)

WLD 2214/L GMAW II WELDING (TIG)/ LAB
Prerequisite: WLD 1214 or permission of the instructor. The course covers the practical application of GMAW equipment by welding AWS certification tests in all positions on steel plate and steel pipe. The student will also gain knowledge of the tools used to weld and prepare pipe of various diameters. The student will also get an introduction to welding aluminum with the GMAW process. Upon completion of this course, the student is required to pass at least one AWS certification test on plate or pipe by a guided bend test or x-ray. (1-hour lecture, 6 hours lab)
WLD 1114/L SMAW I WELDING
The study of the principles and procedures behind Shielded Metal Arc Welding. The course will cover electrode classifications as well as welding machine characteristics, and help the student understand the application behind SMAW welding by making surface, fillet, and some groove welds in various positions with various electrodes. This course will also give the student an opportunity to take an AWS 1G-certification test on steel plate. During the course, the student will also learn how to properly set up and use an oxygen/acetylene cutting torch, and be able to perform certain tasks with it. (2 hours lecture, 3 hours lab)

WLD 1224/L GTAW I WELDING (TIG)/LAB
The principles and procedures behind Gas Tungsten Arc Welding. The course will cover electrode classifications as well as welding machine characteristics, and help the student understand the application behind GTAW welding by making surface, fillet, and some groove welds in various positions. This course will also give the student an opportunity to take an AWS 1G-Certification test on steel plate. During the course, the student will also learn how to properly set up and use a plasma cutter, and be able to perform certain tasks with it. (1-hour lecture, 6 hours lab)

WLD 2224/L GTAW II WELDING (TIG)/LAB
Prerequisite: WLD 1224 or permission of the instructor. The course covers the practical application of GTAW equipment by welding AWS certification tests in all positions on steel plate and steel pipe. The student will also gain knowledge of the tools used to weld and prepare pipe of various diameters. The student will also get an introduction to welding aluminum with the GTAW process. Upon completion of this course, the student is required to pass at least one AWS certification test on plate or pipe by a guided bend test or x-ray. (1-hour lecture, 6 hours lab)

WLD 1244 LAYOUT AND PIPEFITTING I
The study of fitting together structured steel by using various formulas to develop angles of cut and fit. This course will cover various print reading concepts as well as how to use various measurement systems and tools. At the conclusion of this course, the student should be able to lay out many different angles and fits on beams, angles, channels, and many other structural steels. (4 hours, lecture/lab combined)

WLD 2244 LAYOUT AND PIPEFITTING II
Prerequisite: WLD 1244 or consent of instructor. The study of fitting together pipe by using various formulas to develop angles of cut and fit. The student will gain knowledge of how to incorporate these cuts into a multi turn piping system. This course will also cover drawing pipe templates in detail. At the conclusion of this course, the student should be able to take a shop drawing and fabricate a piping system with multiple turns. (4 hours, lecture/lab combined)

WLD 1513 CUTTING PRINCIPLES AND PRACTICES
This course will cover all aspects of cutting in the welding industry. The curriculum includes the oxyacetylene torch, plasma cutter, arc gouger, pattern cutter, and the proper use of the band saw. During the course, the student will have to demonstrate the proper use of each piece of equipment. (1-hour lecture: 4-hour lab)

WLD 1404 WELD EVALUATION AND TESTING
This course will include information about the different types of destructive tests, nondestructive tests, welding procedure qualifications, and welder performance qualifications. This course is designed to better inform the welder as to what standards he will be tested on as well as open a door for a job in weld inspection (4 hours, lecture/lab combined)
**WLD 1613 WELDING METALLURGY**
Topics covered in the course will include the chemical, mechanical, and physical properties of metals, mechanical behavior, microstructure, and post-weld heat-treating. The student should leave this course with an introduction into the composition of metals and why it is important to maintain them.

**WLD 1714 ADVANCED PIPE WELDING I**
The course is the first of two to be taken consecutively in a compressed format (3 weeks/180 clock hours each). It covers the practical application of GTAW and SMAW equipment by welding in compliance with AWS certification test on stainless and carbon steel pipe. This course will use Level Three of the NCCER book. The student will make welds I 1g, 2g, 5g, 6g, and welds in a pipe rack using SMAW and GTAW. The student will learn how to prep carbon pipe and stainless pipe for welding. Prerequisites: WLD 1114, WLD 2114, WLD 1224, WLD 2224 or comparable prior learning experience.

**WLD 2714 ADVANCED PIPE WELDING II**
This is the second of a two-part set of courses designed to be taken sequentially in a compressed format (3 weeks/180 clock hours each). The course covers the practical application of GTAW and SMAW equipment by welding in compliance with AWS certification test on stainless and carbon steel pipe. This course will use Level Three of the NCCER book. The student will make welds I 1g, 2g, 5g, 6g, and welds in a pipe rack using SMAW and GTAW. The student will learn how to prep carbon pipe and stainless pipe for welding. Upon completion of this course the student is required to pass at least one AWS 6g weld test. Prerequisite: WLD 1714