

Accounting

ACCT 2000 Special Topics

Prerequisites: ACCT 2113 and by evaluation. § Criteria for evaluation is in division office.

VARIABLE 1-3 Credits The student will demonstrate specified competencies in subjects not included in other accounting courses, but which are beneficial in providing a better understanding of the field. A specific topic is announced for each offering. Enrollment may be repeated with a change in subject matter.

ACCT 2113 Accounting I/Financial

Prerequisites: MATH 0313 or adequate math placement and ENGL 0203 or adequate placement score, or by meeting determined placement measures.

3 Credits Students will demonstrate an understanding of basic accounting concepts, theories, and procedures and their effects on the financial reporting and analysis of a business.

ACCT 2123 Accounting II/Managerial

Prerequisites: Completion of ACCT 2113 with a grade of "C" or better.

3 Credits A continuation of ACCT 2113. Students will demonstrate an understanding of managerial accounting concepts by properly classifying basic cost elements, allocating these costs to the manufacturing processes of a product, performing cost-volume-profit analysis, preparing operating and capital budgets, analyzing the decision-making process, and making business decisions.

ACCT 2213 Accounting in Quickbooks

Prerequisites: ACCT 2113

3 Credits This course is designed for students who are seeking an Associate in Applied Science - Business Degree. It generally will not transfer to four-year public colleges or universities. Students will demonstrate the use of the computer to complete accounting problems utilizing QuickBooks. This course satisfies the computer proficiency requirement.

ACCT 2403 Income Tax Accounting

Prerequisites: ACCT 2113

3 Credits This course is designed for students seeking an Associate in Applied Science in Business-Accounting Option. It generally will not transfer to four-year public colleges or universities. Students will demonstrate their understanding of concepts of federal income taxation of individuals by (1) determining gross income, (2) identifying and computing allowable deductions for and from adjusted gross income, and (3) computing the tax liability.

Allied Health

AHP 1000 Special Topics

Prerequisites: ENGL 0203, adequate placement score, or by meeting determined placement measures

VARIABLE 1-4 Credits The student will demonstrate specified competencies in subject areas not covered in other Allied Health courses, but which are beneficial in providing a better understanding of health. A specific subject is announced for each offering. Enrollment may be repeated with a change of topic.

AHP 1013 Medical Terminology

Prerequisites: ENGL 0203, adequate placement score, or by meeting determined placement measures

3 Credits After studying the root words, prefixes, and suffixes from which medical terms evolve, the student will correctly spell medical terms, define terms commonly used in medical fields, and determine the meaning of unfamiliar medical terms.

AHP 1222 First Aid and CPR

Prerequisites:

2 Credits This course provides knowledge and practical experience in the emergency care of injuries and sudden illness, including cardiopulmonary resuscitation. This course includes content of the American Heart Association (AHA), Basic Life Support (BLS), and First Aid which meets the National Emergency Cardiovascular (ECC) standards. Students will receive AHA, BLS, and First Aid certifications upon satisfactorily completing this course.

AHP 2000 Special Topics

Prerequisites: None

VARIABLE 1-4 Credits The student will demonstrate specified competencies in subject areas not covered in other Allied Health courses, but which are beneficial in providing a better understanding of health or health care. A specific subject will be announced for each offering. Enrollment may be repeated with a change of topic.

Anesthesia Technology

ANES 1112 Introduction to Anesthesia Technology

Prerequisites: Co-requisite: ANES 1124

2 Credits This course is an introduction to the role of the Anesthesia Technologist and their relationship to other Healthcare Professionals. In addition, the student will be introduced to the theory and concepts of functioning in a surgical environment including a fundamental understanding of a variety of anesthesia equipment/supplies and basic case set-up. This course satisfies the computer proficiency requirement.

ANES 1124 Fundamentals I

Prerequisites: Co-requisite: ANES 1112

4 Credits This course introduces the student to management of patients undergoing general, regional, or sedation anesthesia. The dependence of medical diagnostics and the analogous relationship of the human body to the sciences are emphasized. Didactic and laboratory instruction as well as clinical preceptorships are provided to prepare the student with cognitive, psychomotor, and affective learning related to anesthesia technology fundamentals. This course satisfies the computer proficiency requirement.

ANES 1134 Instrumentation I

Prerequisites: ANES 1124; Co-requisites: ANES 1143; ANES 1155

4 Credits This course focuses on the equipment and instrumentation utilized in providing anesthesia. Topics to be covered include the anesthesia machine, airway equipment and basic set-up. In addition, ancillary equipment including but not limited to gas cylinders, hospital gas supply lines, ventilators, absorbers, and pulse oximetry will be covered. Set-up, calibration, operation, basic troubleshooting, maintenance, and safety checks will be examined. Didactic and laboratory instruction are provided to prepare the student with cognitive, psychomotor, and affective learning related to anesthesia technology basic instrumentation. This course satisfies the computer proficiency requirement.

ANES 1143 Pharmacology

Prerequisites: ANES 1124; Co-requisites: ANES 1134; ANES 1155

3 Credits This course focuses on the pharmacokinetics and pharmacodynamics of drugs used in the administration of anesthesia and analgesia. Topics covered include dosage calculation, physics gas laws, routes of administration, drug interactions, and the various classes of anesthetic agents. Safe practices of delivery and storage of medication as well as assisting anesthesia care providers in the preparation of medications will be introduced. This course satisfies the computer proficiency requirement.

ANES 1155 Fundamentals II

Prerequisites: ANES 1124; Co-requisites: ANES 1134; ANES 1143

5 Credits This course provides didactic, laboratory, and clinical instruction to prepare the student with the cognitive, psychomotor, and affective learning skills related to anesthesia technology fundamentals. Topics include: human pathophysiology, surgical procedures, positioning, special equipment needs, and anesthesia technology care plan development. Additional topics include an introduction to anesthesia emergencies, e.g., difficult airway algorithms, malignant hyperthermia, fire in the operating room, cardiac arrest, anaphylaxis, and local anesthesia toxicity. Clinical settings will include adult and pediatric hospital operating rooms, interventional and diagnostic radiology, outpatient procedure suites, labor and delivery suites, and ambulatory surgery centers. All clinical experiences will be under direct supervision with a clinical preceptor. By the end of the semester, students will independently set-up equipment, anticipate the anesthesia provider's needs during routine and emergency procedures, and recognize the patient's response to medications and treatments administered by the anesthesia provider. This course satisfies the computer proficiency requirement.

ANES 2114 Instrumentation II

Prerequisites: Prerequisites: ANES 1134; Co-requisites: ANES 2125, ANES 2133

4 Credits This course provides instruction and lab application to the theories and concepts of advanced anesthesia equipment used in complex anesthesia situations. Topics include Point of Care Technology, Invasive monitoring and transducers, thromboelastograph, cell saver, rapid volume infuser, IABP's transport monitoring, NMB assessment, VADs, defibrillators, pacemakers and implantable defibrillators. This course satisfies the computer proficiency requirement.

ANES 2125 Fundamentals III

Prerequisites: ANES 1155; Co-requisites: ANES 2114; ANES 2133

5 Credits This course provides didactic, laboratory and clinical instruction to prepare the student with the cognitive, psychomotor, and affective learning skills related to anesthesia technology advanced fundamentals. Topics include ACLS certification, IV therapy, pediatric, obstetric and emergency anesthesia. This course satisfies the computer proficiency requirement.

ANES 2133 Professional Aspects of Anesthesia Technology

Prerequisites: ANES 1155; Co-requisites: ANES 2114; ANES 2125

3 Credits This course serves as a capstone course for the anesthesia technology program. Topics include supply chain fundamentals, including budget limitations and cost effectiveness; ethics and law related to anesthesia technology, policies and standards for quality assurance, process improvement, regulatory associations, and credentialing. Students will prepare for the national technologist credentialing exam, review career opportunities and discuss present and future technologies. This course satisfies the computer proficiency requirement.

Applied Mathematics

APPM 1223 Mathematics for Technical Careers I

Prerequisites: MATH 0103 or adequate math placement; Co-requisite: ENGL 0203, adequate placement score, or by meeting determined placement measures

3 Credits The student will apply principles of basic algebra, equations, functions and graphs, factoring, and fractions in the solutions of technical problems.

APPM 1233 Mathematics for Technical Careers II

Prerequisites: APPM 1223

3 Credits The student will apply the systems of equations, exponents and radicals, quadratic equations, ratio and proportion, exponential and logarithmic functions, and trigonometry and geometry in the solution of technical problems.

APPM 1313 Mathematics for Health Careers

Prerequisites: MATH 0103 or adequate math placement; Co-requisite: ENGL 0203, adequate placement score, or by meeting determined placement measures

3 Credits The student will convert units of measure within and among the metric, apothecary, and avoirdupois systems of measurement; solve pharmacology problems; apply algebraic concepts to signed numbers, formulas, and graphs; and use statistical software to analyze data with descriptive statistics and linear regression. This course satisfies the computer proficiency requirement.

Art

ART Hands On Fine Arts (Art, Mus, Jb, Or Engl 2003)

Prerequisites:

3 Credits Hands on Fine Arts (ART, MUS, JB, or ENGL 2003)

ART 1000 Special Topics in Visual Art

Prerequisites: ENGL 0203, adequate placement score, or by meeting determined placement measures

VARIABLE 1-6 Credits The student will produce examples of the specific topic in art with which the course content is concerned. A specific topic beyond the topics offered in other art courses will be designated for each offering. Examples of topics include Basic Watercolor, Calligraphy, and Weaving. This course may be repeated with a change in subject matter.

ART 1013 Art History: Prehistoric to Early Renaissance

Prerequisites: ENGL 1113

3 Credits Art History: Prehistoric to Early Renaissance is a study of the arts, artists and their cultures from Prehistoric through the Early Renaissance. The student will analyze the artistic styles and identify visually the style, its time, its characteristics and the artists important to that period. The student also will analyze the social and art issues which led to the development and evolution of art styles throughout history.

ART 1023 Art History: Early Renaissance to Contemporary

Prerequisites: ENGL 1113

3 Credits Art History: Early Renaissance to Contemporary is a study of the visual arts, artists and their cultures from the Early Renaissance to the present. The student will analyze artistic styles and identify visually the style, its time, its characteristics and the artists important to that period. The student also will analyze the social and art issues which led to the development and evolution of art styles throughout history.

ART 1053 Art Appreciation

Prerequisites: ENGL 0203, adequate placement score, or by meeting determined placement measures

3 Credits The study of art from a variety of different backgrounds and cultures as both product and process. Aesthetic judgement making in evaluation of art from different times and places is stressed. Periods of art history with relevant concepts and terminology are included.

ART 1123 Drawing I

Prerequisites: ENGL 0106 or adequate placement score

3 Credits Drawing I will develop the students understanding of the basic concepts of drawing and their powers of observation. Students will work with various media utilizing a variety of sources and environments.

ART 1183 Computer Drawing: Illustrator

Prerequisites: ENGL 0106 or adequate placement score

3 Credits Students will demonstrate knowledge of vector illustration techniques using Adobe Illustrator software. Students will also create and edit graphic objects and type, select various menu commands, and use keyboard shortcuts. This course satisfies the computer proficiency requirement.

ART 1190 Mosaics

Prerequisites: None

VARIABLE 1-3 Credits The student will demonstrate understanding of basic design and proficiency in techniques for creating mosaics, consistent with materials to be used. The student also will select proper materials, cut materials, position and adhere materials, transfer designs, produce porcelain tile and proper mortar mixes for interior and exterior mosaics. Course may be repeated for up to three credit hours.

ART 1203 Figure Drawing

Prerequisites: ART 1123

3 Credits Figure Drawing includes study in gesture and finished drawings of the draped and undraped model. Emphasis will be placed on pose, composition and a variety of media. The students' drawings will demonstrate the movement, rhythm, simplicity, gesture and unique character of each model through a series of basic methods of construction ranging from quick sketches to completed drawings.

ART 1213 Foundations I: Design and Color

Prerequisites: ENGL 0203, adequate placement score, or by meeting determined placement measures

3 Credits The student will learn to recognize, analyze and apply the elements and principles of 2D design and color in the pictorial arts by studying design and color theory.

ART 1233 Drawing II

Prerequisites: ART 1123

3 Credits Drawing II will continue to develop the students' understanding of the concepts of drawing. Students will continue to develop their skills in media by using a variety of sources and environments. They will demonstrate the proper application of advanced linear perspective, the depiction of complicated shapes and figures as well as the ability to convey emotion.

ART 1243 Foundations II: 3D Design

Prerequisites: ART 1213

3 Credits The student will compare, evaluate, and analyze three-dimensional visual art forms. By using a variety of materials and processes, the student will complete a series of studio assignments to demonstrate basic technical ability and an understanding and appreciation of the interaction of form in space and ways to manipulate it. Readings, writings, and participation in a coursework exhibition are required.

ART 1363 Multimedia

Prerequisites: Math 0203 or adequate math placement, CS 1103 or by evaluation. § Criteria for evaluation is in division office.

3 Credits Students will use selected application software to develop presentation graphics. This will include the creation, importation, modification, and sequencing of still and motion graphics. Digital audio will be created, edited and synchronized to the presentations. This course satisfies the computer proficiency requirement.

ART 2000 Special Topics in Visual Art

Prerequisites: ENGL 0203, adequate placement score, or by meeting determined placement measures

VARIABLE 1-6 Credits The student will demonstrate specified competencies in subjects not included in other Visual Arts courses, but which are beneficial in providing a better understanding of the field. A specific subject is announced for each offering. Enrollment may be repeated with a change in topic.

ART 2013 Painting I

Prerequisites: ENGL 0106 or adequate placement score

3 Credits Painting I will develop skills in opaque painting, stressing form and content, visual appreciation and individual expression. After an introduction to the different methods of mixing and applying paint, the student will study various styles and techniques of painting.

ART 2133 Serigraphy I (Silk Screen Printing)

Prerequisites: ENGL 0203, adequate placement score, or by meeting determined placement measures

3 Credits Serigraphy I introduces the student to both hand and photo stencil and screen print methods. Each student will produce a body of work exploring the image-making potential of screen printing techniques on paper and T-shirts. Strong emphasis will be placed on exploring color, design, and personal creativity.

ART 2143 Ceramics I

Prerequisites: None

3 Credits Ceramics I covers a variety of building techniques, glazing and ceramics terminology. The student will construct pieces of clay-formed pottery using slab, coil, wheel and other methods of construction.

ART 2183 Painting II

Prerequisites: ART 2013

3 Credits Painting II will continue to develop the students' skills in opaque painting. The course will continue to stress form and content, visual appreciation and individual expression.

ART 2190 Advanced Mosaics

Prerequisites: ART 1190

VARIABLE 1-3 Credits The student will demonstrate understanding of advanced mosaic design and proficiency in techniques for creating mosaics. The advanced student will assist the instructor with firing tile, rendering drawings (enlarging cartoons), and assisting with mosaics projects. Course may be repeated for up to three credit hours.

ART 2233 Serigraphy II (Advanced Silk Screenprinting)

Prerequisites: ART 2133

3 Credits Serigraphy II involves advanced studies in utilizing screen-printing techniques. Students will produce a body of work that emphasizes the exploration of color, design, and personal creativity.

ART 2263 Ceramics II

Prerequisites: ART 2143

3 Credits Ceramics II continues to develop the students' skills in a variety of ceramic techniques. Students will continue to develop their glazing and knowledge of ceramics and its terminology. They will mix their own clay and construct clay pieces using the coil, pinch, wheel, slab and mold methods of construction. They will demonstrate various firing techniques such as raku, sawdust and dung. They will test various pottery glazes and assist in firing pottery in a kiln.

ART 2373 Graphic Arts Illustration

Prerequisites: ART 1123 or by evaluation. § Criteria for evaluation is in division office.

3 Credits The student will learn about and produce illustrations using a variety of techniques and media. Types of illustrations produced include pencil, ink, markers, scratchboard, colored pencil and mixed media. Work will be accomplished to conform to professional standards in the graphic arts industry

ART 2533 3D Rendering and Design Visualization

Prerequisites: Math 0103 or adequate math placement and ENGL 0203, adequate placement score, or by meeting determined placement measures

3 Credits The student aspiring to become an artist, designer or other professional using 3D computer graphics will be able to create, generate or integrate 3D computer graphics. The student will demonstrate a fundamental understanding of how the computer can be used to create 3D computer renderings. These renderings could be related to either technical design, fine art or applied art. Emphasis will be on using application software (primarily 3D modeling and rendering programs) in the development of modeling logos, 3D scenes, textures, lighting, atmosphere effects, and basic animation. This course satisfies the computer proficiency requirement.

ART 2573 Digital Painting

Prerequisites: ENGL 0203, adequate placement score, or by meeting determined placement measures

3 Credits The student will be introduced to the art media and form of digital imaging. Students will use raster and vector based drawing, painting, and image-editing software applications to create expressive images. Participants will use digital drawing tables, scan their sketches and photographs into a variety of computer programs and manipulate them digitally to create works of art. They will blend colors using digital and traditional color theory. This course satisfies the computer proficiency requirement.

ART 2633 3D Animation and Special Effects

Prerequisites: Math 0103 or adequate math placement, ART 2533 or by evaluation. § Criteria for evaluation is in division office.

3 Credits The student will be able to use professional techniques to create photo realistic renderings, advanced physical based and character animations, interactive Media and Web development, 3D gaming and 3D virtual environments. This course will enhance the abilities of artists, designers and other professionals using 3D computer created, generated, or integrated graphics. Emphasis will be on the development of professional techniques in the area of 3D computer graphics. This course is the second course in the field of 3D computer graphics for technical design, fine art or applied art professionals. This course satisfies the computer proficiency requirement.

ART 2643 Video Production

Prerequisites: ENGL 0203, adequate placement score, or by meeting determined placement measures

3 Credits The student will use video production techniques to produce, edit and direct program materials of broadcast quality. Extensive laboratory work is required. This course satisfies the computer proficiency requirement.

ART 2700 Internship

Prerequisites: All required major courses, ART 1013, ART 1023

VARIABLE 1-3 Credits The student will work with professional practitioners in areas such as art galleries and museums, art libraries, fine arts studios, film/video studios, art therapy practices, animation studios, photography studios, etc. The internship course is designed to help students explore their interests, obtain practical experience, and prepare for a career in Visual Arts.

ART 2821 Portfolio Development and Presentation

Prerequisites: All required major courses, ART 1013, ART 1023

1 Credit The student and instructor will make a critical analysis of the student's work done over the duration of the program to identify any deficiencies. The student will address any deficiencies and develop a portfolio. The portfolio will present works of art in a professional format, either framed, matted, as slides, or in digital form, whichever is most appropriate to the student's area of concentration. The student will also write a well developed artist's statement.

Astronomy

ASTR 1501 General Astronomy Laboratory

Prerequisites: ASTR 1504

This class fulfills the laboratory requirement for a general physical science course. Students having already taken ASTR 1504 will perform laboratory experiments in general physics, the behavior of light and analysis of spectral lines, as well as observational projects involving telescopes and on-line databases of astronomical deep-space objects.

ASTR 1504 General Astronomy

Prerequisites: Math 0203 or adequate math placement; ENGL 0203, adequate placement score, or by meeting determined placement measures

4 Credits This course will fulfill the general education requirement for Physical Science (without laboratory). The student will be introduced to modern astronomy. Concepts to be studied include the solar system, the sun and stars, galaxies (including the Milky Way Galaxy), and current theories of the origin, evolution, and fate of the universe. This course satisfies the computer proficiency requirement.

ASTR 1514 General Astronomy with Lab

Prerequisites: Math 0203 or adequate math placement; ENGL 0203, adequate placement score, or by meeting determined placement measures

4 Credits This course will fulfill the general education requirement for Physical Science (with laboratory). The student will be introduced to modern astronomy. Concepts to be studied include the solar system, the sun and stars, galaxies (including the Milky Way Galaxy), and current theories of the origin, evolution, and fate of the universe. Laboratory exercises will explore basic physical principles related to Astronomy as well as activities with specific astronomical applications. This course satisfies the computer proficiency requirement.

Automotive Technology

AT 1000 Special Topics

Prerequisites: None

VARIABLE 1-3 Credits The student will demonstrate specified competencies in subjects not included in other automotive courses, but which benefit students wanting additional training in the field or comprehension of the field. A specific topic is announced for each offering. Enrollment may be repeated with a change of topic. This course satisfies the computer proficiency requirement.

AT 1013 Automotive Student Success Initiative

Prerequisites: None

3 Credits Students will participate in four disciplines designed to prepare students to be successful in automotive programs requiring internships. Students will be required to complete the Automotive Safety, Job Interview Skills, Mentoring, and Introduction to Electricity courses. The student must successfully complete the safety course consisting of specific automotive related safety issues as well as those specific to Oklahoma City Community College. The student will continue with a Job Interview Skills course consisting of writing a resume and how to conduct a successful interview, with a mock video taped interview being required. The student will also complete the Mentoring program with both student and sponsoring dealership personnel participating. The student will finally complete an Introduction to Electricity course to ensure basic concepts and abilities are present to ensure entry level skills are present when the student begins the Automotive Program. This course is a prerequisite for all automotive courses in programs requiring an internship. This course satisfies the computer proficiency requirement.

AT 1153 Basic Automotive Fundamentals

Prerequisites:

3 Credits This course is an application of specific competencies in the operation and service repair of vehicles in the areas of: maintenance and minor vehicle service. Usage of service manuals, manufacturers procedures, tools, and safety are stressed. The student will discuss nomenclature and operating principles of basic automotive fundamentals. Also, the student will discuss and perform diagnostic and service procedures used to maintain these specific systems. The student will show competency in the areas of changing fluids, flush equipment, tire repair, tire balance, vehicle vibration diagnosis, and scan tool usage. This course satisfies the computer proficiency requirement.

AT 1204 A.S.E. Engine Performance

Prerequisites: MATH 0103 or adequate math placement and ENGL 0203 or adequate placement score, or by meeting determined placement measures.

4 Credits The student will discuss and demonstrate general engine diagnostic procedures. Additionally, the student will demonstrate specific competencies in the diagnosis and repair of ignition systems, fuel, air induction systems, and exhaust systems, emission control systems, and engine electronic systems. This course satisfies the computer proficiency requirement.

AT 1214 A.S.E. Engine Repair

Prerequisites: MATH 0103 or adequate math placement and ENGL 0203 or adequate placement score, or by meeting determined placement measures.

4 Credits The student will discuss and demonstrate competencies in general engine diagnosis and in cylinder head, valve train, engine block diagnosis and repair, as well as lubrication, cooling, fuel, exhaust, ignition, battery and starting system diagnostic and repair procedures. This course satisfies the computer proficiency requirement.

AT 1224 A.S.E. Suspension and Steering

Prerequisites: MATH 0103 or adequate math placement and ENGL 0203 or adequate math placement test score, or by meeting determined placement measures.

4 Credits This course is an application of basic competencies in steering systems, suspension systems and wheel alignment diagnosis, adjustment and repair. The student will further discuss and demonstrate an understanding of wheel and tire diagnosis and repair. This course satisfies the computer proficiency requirement.

AT 1244 A.S.E. Brakes

Prerequisites: MATH 0103 or adequate math placement and ENGL 0203 or adequate placement score, or by meeting determined placement measures.

4 Credits This course is an application of specific competencies in hydraulic system, drum brake system, disc brake system diagnosis and repair procedures. Also, the student will discuss and demonstrate competencies in power assist unit diagnosis and repair as well as wheel bearing, parking brake circuit and associated electrical circuit diagnosis and repair, which includes ABS systems. This course satisfies the computer proficiency requirement.

AT 1304 GM Engine Repair

Prerequisites: MATH 0103 or adequate math placement, ENGL 0203 or adequate placement score, or by meeting determined placement measures. Special admission procedures required.

4 Credits The student will discuss and demonstrate competencies in general engine diagnosis and in cylinder head, valve train, engine block diagnosis and repair, as well as lubrication, cooling, fuel, exhaust, ignition, battery and starting system diagnostic and repair procedures on current General Motors vehicles. This course satisfies the computer proficiency requirement.

AT 1314 GM Electrical Systems

Prerequisites: MATH 0103 or adequate math placement and ENGL 0203 or adequate placement score, or by meeting determined placement measures. Special admission procedures required.

4 Credits The student will apply competencies in battery, starting, charging, lighting, driver information, horn, wiper/washer, and accessory systems. Additionally, the student will demonstrate principles of electricity, magnetism, voltage and current regulation and basic circuitry as applied in automotive electrical systems to aid in general diagnosis of automotive electrical problems on current General Motors vehicles. This course satisfies the computer proficiency requirement.

AT 1324 GM Engine Performance

Prerequisites: MATH 0103 or adequate math placement and ENGL 0203 or adequate placement score, or by meeting determined placement measures. Special admission procedures required.

4 Credits The student will discuss and demonstrate general engine diagnostic procedures. Additionally, the student will demonstrate specific competencies in the diagnosis and repair of ignition systems, fuel, air induction systems, and exhaust systems, emission control systems, and engine electronic systems on current General Motors vehicles. This course satisfies the computer proficiency requirement.

AT 1334 GM Brakes

Prerequisites: MATH 0103 or adequate math placement, or by evaluation and ENGL 0203 or adequate placement score, or by meeting determined placement measures. Special admission procedures required.

4 Credits This course is an application of specific competencies in hydraulic system, drum brake system, disc brake system diagnosis and repair procedures. Also, the student will discuss and demonstrate competencies in power assist unit diagnosis and repair as well as wheel bearing, parking brake circuit and associated electrical circuit diagnosis and repair, which includes ABS systems on current General Motors vehicles. This course satisfies the computer proficiency requirement.

AT 1422 GM New Products I

Prerequisites: MATH 0103 or adequate math placement, or by evaluation and ENGL 0203 or adequate placement score, or by meeting determined placement measures. § Criteria for evaluation is in division office. Special admission procedures required.

2 Credits The student will discuss and demonstrate specific competencies in subject not included in other ASEP automotive courses, which subjects will benefit students needing additional General Motors product service training in new technology and specialized areas. A specific topic is announced for each offering. This course satisfies the computer proficiency requirement.

AT 1612 A.S.E. Engine Performance

Prerequisites: MATH 0103 or adequate math placement, or by evaluation and ENGL 0203 or adequate placement score, or by meeting determined placement measures. § Criteria for evaluation is in division office.

2 Credits This is an individual-paced (IP) course. The student will discuss and demonstrate general engine diagnostic procedures. Additionally, the student will demonstrate specific competencies in the diagnosis and repair of ignition systems, fuel, air induction systems, and exhaust systems, emission control systems and engine electric systems. This course satisfies the computer proficiency requirement.

AT 1622 A.S.E. Engine Repair

Prerequisites: MATH 0103 or adequate math placement, or by evaluation and ENGL 0203 or adequate placement score, or by meeting determined placement measures. § Criteria for evaluation is in division office.

2 Credits This is an individual-paced (IP) course. The student will discuss and demonstrate competencies in general engine diagnosis and in cylinder head, valve train, engine block diagnosis and repair, as well as lubrication, cooling, fuel, exhaust, ignition, battery and starting system diagnostic and repair procedures. This course satisfies the computer proficiency requirement.

AT 1632 A.S.E. Suspension and Steering

Prerequisites: MATH 0103 or adequate math placement, or by evaluation and ENGL 0203 or adequate placement score, or by meeting determined placement measures. § Criteria for evaluation is in division office.

2 Credits This is an individual-paced (IP) course. This course is an application of basic competencies in steering systems, suspension systems and wheel alignment diagnosis, adjustment and repair. The student will further discuss and demonstrate an understanding of wheel and tire diagnosis and repair. This course satisfies the computer proficiency requirement.

AT 1642 A.S.E. Brakes

Prerequisites: MATH 0103 or adequate math placement, or by evaluation and ENGL 0203 or adequate placement score, or by meeting determined placement measures. § Criteria for evaluation is in division office.

2 Credits This is an individual-paced (IP) course. This course is an application of specific competencies in hydraulic system, drum brake system, disc brake system diagnosis and repair procedures. Also, the student will discuss and demonstrate competencies in power assist unit diagnosis and repair as well as wheel bearing, parking brake circuit and associated electrical circuit diagnosis and repair, which includes ABS systems. This course satisfies the computer proficiency requirement.

AT 1652 A.S.E. Automotive Electives I

Prerequisites: MATH 0103 or adequate math placement, or by evaluation and ENGL 0203 or adequate placement score, or by meeting determined placement measures. § Criteria for evaluation is in division office.

2 Credits This is an individual-paced (IP) course. The student will discuss and demonstrate specific competencies in subjects not included in another ATIP automotive courses, which will benefit those needing additional automotive training in new technology and specialized areas. A specific topic is announced for each offering. This course satisfies the computer proficiency requirement.

AT 1733 Body and Electrical Service

Prerequisites: MATH 0103 or adequate math placement, or by evaluation and ENGL 0203 or adequate placement score, or by meeting determined placement measures.

3 Credits The student will demonstrate competencies in electrical theory and automotive heat and air conditioning theory, general body accessory and electrical service including automotive air conditioning/heating systems repair and diagnosis, battery charging, lighting and repair. This course satisfies the computer proficiency requirement.

AT 1753 Under Vehicle Service

Prerequisites: MATH 0103 or adequate math placement and ENGL 0203 or adequate placement score, or by meeting determined placement measures.

3 Credits The student will demonstrate competencies in vehicle brake systems, steering systems and suspension systems. These competencies will include brake system repair and diagnosis, anti-lock brake system diagnosis, alignment procedures and theory, and suspension diagnosis. This course satisfies the computer proficiency requirement.

AT 1773 Powertrain Service

Prerequisites: MATH 0103 or adequate math placement and ENGL 0203 or adequate placement score, or by meeting determined placement measures.

3 Credits The student will demonstrate competencies in engine repair and engine performance that will include general engine diagnosis, engine repair, valve train design, cooling system diagnosis, ignition system diagnosis, emission control system diagnosis and engine control diagnosis. This course satisfies the computer proficiency requirement.

AT 2001 Career Experience

Prerequisites: MATH 0103 or adequate math placement and ENGL 0203 or adequate placement score, or by meeting determined placement measures.

1 Credit The student will demonstrate the ability to work effectively as a full-time employee at a sponsoring dealership and will demonstrate specified competencies and develop service skills by working and performing service and repair operations in areas related to coursework completed the preceding term. Enrollment may be repeated with a change in work emphasis. This course satisfies the computer proficiency requirement.

AT 2101 A.S.E. Certification

Prerequisites: ENGL 0203 or adequate placement score, or by meeting determined placement measures.

1 Credit The student will demonstrate competencies in engine repair, automatic transmission/transaxle, manual drive train and axles, suspension and steering, brakes, electrical systems, heating and air conditioning, and engine performance. This course is designed for individuals seeking A.S.E. certification which requires previous completion of related training. This course satisfies the computer proficiency requirement.

AT 2204 A.S.E. Manual Drive Trains

Prerequisites: MATH 0103 or adequate math placement and ENGL 0203 or adequate placement score, or by meeting determined placement measures.

4 Credits The student will apply specific competencies in general transmission and transaxle diagnosis. Additionally, the student will demonstrate competencies in transmission/transaxle maintenance, adjustment and in and off vehicle repair. This course satisfies the computer proficiency requirement.

AT 2214 A.S.E. Automatic Transmissions/transaxles

Prerequisites: MATH 0103 or adequate math placement and ENGL 0203 or adequate placement score, or by meeting determined placement measures.

4 Credits The student will apply specific competencies in general transmission and transaxle diagnosis. Additionally, the student will demonstrate competencies in transmission/transaxle maintenance, adjustment and in and off vehicle repair. This course satisfies the computer proficiency requirement.

AT 2224 A.S.E. Electrical Systems

Prerequisites: MATH 0103 or adequate math placement and ENGL 0203 or adequate placement score, or by meeting determined placement measures.

4 Credits The student will apply competencies in battery, starting, charging, lighting, driver information, horn, wiper/washer, and accessory systems. Additionally, the student will demonstrate principles of electricity, magnetism, voltage and current regulation and basic circuitry as applied in automotive electrical systems to aid in general diagnosis of automotive electrical problems. This course satisfies the computer proficiency requirement.

AT 2234 A.S.E. Heating and Air Conditioning Systems

Prerequisites: MATH 0103 or adequate math placement and ENGL 0203 or adequate placement score, or by meeting determined placement measures.

4 Credits The student will apply competencies in air conditioning system diagnosis and repair as well as diagnosis and repair of refrigeration system components, heating and engine cooling systems and control units. This course satisfies the computer proficiency requirement.

AT 2304 GM Suspension and Steering

Prerequisites: MATH 0103 or adequate math placement and ENGL 0203 or adequate placement score, or by meeting determined placement measures. Special admission procedures required.

4 Credits This course is an application of basic competencies in steering systems, suspension systems and wheel alignment diagnosis, adjustment and repair. The student will further discuss and demonstrate an understanding of wheel and tire diagnosis and repair on current General Motors vehicles. This course satisfies the computer proficiency requirement.

AT 2314 GM Manual Drive Trains

Prerequisites: MATH 0103 or adequate math placement and ENGL 0203 or adequate placement score, or by meeting determined placement measures. Special admission procedures required.

4 Credits This course is an application of specific competencies in clutch, standard transmission and transaxle, drive (half) shaft and universal joint, rear axle and four- and/or all-wheel drive component diagnosis and repair procedures on current General Motors vehicles. This course satisfies the computer proficiency requirement.

AT 2324 GM Automatic Transmissions and Transaxles

Prerequisites: MATH 0103 or adequate math placement and ENGL 0203 or adequate placement score, or by meeting determined placement measures. Special admission procedures required.

4 Credits The student will apply specific competencies in general transmission and transaxle diagnosis. Additionally, the student will demonstrate competencies in transmission/transaxle maintenance, adjustment and in and off vehicle repair on current General Motors vehicles. This course satisfies the computer proficiency requirement.

AT 2334 GM Heating and Air Conditioning Systems

Prerequisites: MATH 0103 or adequate math placement and ENGL 0203 or adequate placement score, or by meeting determined placement measures. Special admission procedures required.

4 Credits The student will apply competencies in air conditioning system diagnosis and repair as well as diagnosis and repair of refrigeration system components, heating and engine cooling systems and control units on current General Motors vehicles. This course satisfies the computer proficiency requirement.

AT 2422 GM New Products II

Prerequisites: MATH 0103 or adequate math placement and ENGL 0203 or adequate placement score, or by meeting determined placement measures. Special admission procedures required.

2 Credits The student will discuss and demonstrate specific competencies in subjects not included in other ASEP automotive courses, which subjects will benefit students needing additional General Motors product service training in new technology and specialized areas. A specific topic is announced for each offering. This course satisfies the computer proficiency requirement.

AT 2612 A.S.E. Manual Drive Trains

Prerequisites: MATH 0103 or adequate math placement, or by evaluation and ENGL 0203 or adequate placement score, or by meeting determined placement measures. § Criteria for evaluation is in division office.

2 Credits This is an individual-paced (IP) course. This course is an application of specific competencies in clutch, standard transmission and transaxle, drive (half) shaft and universal joint, rear axle and four- and/or all-wheel drive component diagnosis and repair procedures. This course satisfies the computer proficiency requirement.

AT 2622 A.S.E. Automatic Transmissions/transaxles

Prerequisites: MATH 0103 or adequate math placement, or by evaluation and ENGL 0203 or adequate placement score, or by meeting determined placement measures. § Criteria for evaluation is in division office.

2 Credits This is an individual-paced (IP) course. The student will apply specific competencies in general transmission and transaxle diagnosis. Additionally, the student will demonstrate competencies in transmission/transaxle maintenance and adjustments. This course satisfies the computer proficiency requirement.

AT 2632 A.S.E. Electrical Systems

Prerequisites: MATH 0103 or adequate math placement, or by evaluation and ENGL 0203 or adequate placement score, or by meeting determined placement measures. § Criteria for evaluation is in division office.

2 Credits This is an individual-paced (IP) course. The student will apply competencies in battery, starting, charging, lighting, drive information, horn, wiper washer, and accessory systems. Additionally, the student will demonstrate principles of electricity, magnetism, voltage and current regulation and basic circuitry as applied in automotive electrical systems to aid in general diagnosis of automotive electrical problems. This course satisfies the computer proficiency requirement.

AT 2642 A.S.E. Heating and Air Conditioning Systems

Prerequisites: MATH 0103 or adequate math placement, or by evaluation and ENGL 0203 or adequate placement score, or by meeting determined placement measures. § Criteria for evaluation is in division office.

2 Credits This is an individual-paced (IP) course. The student will apply competencies in air conditioning system diagnosis and repair as well as diagnosis and repair of refrigeration system components, heating and engine cooling systems and control units. This course satisfies the computer proficiency requirement.

AT 2652 A.S.E. Automotive Electives II

Prerequisites: MATH 0103 or adequate math placement, or by evaluation and ENGL 0203 or adequate placement score, or by meeting determined placement measures. § Criteria for evaluation is in division office.

2 Credits This is an individual-paced (IP) course. The student will discuss and demonstrate specific competencies in subjects not included in other ATIP automotive courses, which will benefit those needing additional automotive training in new technology and specialized areas. A specific topic is announced for each offering. This course satisfies the computer proficiency requirement.

Banking and Finance

BF 1000 Special Topics

Prerequisites: MATH 0103 or adequate math placement and ENGL 0203 or adequate placement score, or by meeting determined placement measures.

1-4 Credits The student will demonstrate competencies in subjects not covered in other banking courses, but which are beneficial to students wanting a greater understanding of banking functions. A specific topic is announced for each offering. May be repeated with a change of topic.

BF 1303 Introduction to Financial Institutions

Prerequisites: MATH 0103 or adequate math placement and ENGL 0203 or adequate placement score, or by meeting determined placement measures.

3 Credits The student will trace the history, the organization and the operations of the commercial financial industry and explain the impact of these fundamental financial concepts on today's economy. (This course is generally offered in the fall semester only.)

BF 2000 Special Topics

Prerequisites: ENGL 0203 or adequate placement score, or by meeting determined placement measures.

1-4 Credits The student will demonstrate competencies in selected topics related to the operational management of financial institutions not covered in other courses, but which are beneficial to students wanting a greater understanding of these functions. A specific topic is announced for each offering. May be repeated with a change of topic.

Biological Science

BIO Biological Science

Prerequisites:

3 Credits Biological Science

BIO 0123 Concepts in Science (Biology Emphasis)

Prerequisites: Enrollment in BIO 0123 is based upon the student's performance on the appropriate placement test.

3 Credits This course is designed to satisfy the College entrance requirement for those students who did not take a life science course in high school. The course will help the student develop an understanding of basic biological concepts from the cell to the Scientific Method. Laboratory work is an integral part of the course. This course is also designed to prepare the student for a college level biology course.

BIO 1011 General Biology Lab

Prerequisites: Any BIO non-laboratory course except BIO 1023

1 Credit This course is designed for students needing laboratory experience to complete their General Education biology requirements. It is not open to science majors or those who have completed a laboratory based biology course. Students will complete the same lab exercises that are in the General Biology course, BIO 1114.

BIO 1023 Introductory Nutrition

Prerequisites: ENGL 0203 or adequate placement score or by meeting determined placement measures; MATH 0203 or adequate math placement.

3 Credits Upon completion of this course, the student will be able to discuss the composition of nutrients and accessory factors required for human nutrition, relate their roles in human health and disease, and describe the application of basic nutritional principles to the planning of normal and special dietary regimens.

BIO 1113 General Biology (Non Majors)

Prerequisites: ENGL 0203 or adequate placement score or by meeting determined placement measures; MATH 0103 or adequate math placement.

3 Credits An introductory non-lab course that is designed to provide non-biological science major with the necessary background needed to effectively understand scientific information. Students investigate the properties of life to include: organization, energy use, evolution, maintenance of homeostasis, reproduction, growth, and development. Ecological concepts are discussed which enables students to have a better understanding regarding the impact that humans have on the natural world.

BIO 1114 General Biology (Non Majors)

Prerequisites: ENGL 0203 or adequate placement score or by meeting determined placement measures; MATH 0103 or adequate math placement.

4 Credits An introductory lab-based course that is designed to provide non-biological science major with the necessary background needed to effectively understand scientific information. Students investigate the properties of life to include: organization, energy use, evolution, maintenance of homeostasis, reproduction, growth, and development. Ecological concepts are discussed which enables students to have a better understanding regarding the impact that humans have on the natural world. Laboratory work is an integral and required part of this course.

BIO 1124 General Biology I (Majors)

Prerequisites: ENGL 0203 or adequate placement score or by meeting determined placement measures; MATH 0313 or adequate math placement.

4 Credits An introductory course required for all biological science majors and pre-health profession students. The fundamental principles of biology are described using a cellular approach. Students gain knowledge regarding the chemical basis of life, structural characteristics of cells to include a discussion of energetics, metabolism and genetics. Evolution and ecology are also discussed in order to provide an understanding of both the diversity of living organisms and the living world. Students recognize, discuss and correctly apply fundamental biological principles influencing their personal relationship with other life forms. A discussion of the scientific method, logical (deductive) reasoning, hypothesis testing and some common fallacies and misconceptions that cloud scientific explanations of the natural world are included. Laboratory work, an integral and required part of the course, will enhance the student's understanding of fundamental biological concepts as well as scientific procedures, laboratory technical skills, dissection and statistical analysis.

BIO 1134 General Biology II (Majors)

Prerequisites: BIO 1124

4 Credits This second course in the General Biology series for majors in the biological sciences and related fields, takes organismal approach to studying bacterial, plant and animal diversity, and relates how various morphological features function. A discussion of the scientific method, logical (deductive) reasoning, hypothesis testing and some common fallacies and misconceptions that cloud scientific explanations of the natural world are included. Students discuss Darwinian natural selection as a mechanism for evolutionary change with emphasis on systematics in order to understand evolutionary relationships between the major classes of plants and animals. Laboratory work, an integral and required part of the course, includes a variety of dissections and hypothesis testing exercises.

BIO 1204 History of Life On Earth

Prerequisites: ENGL 0203 or adequate placement score or by meeting determined placement measures; MATH 0103 or adequate math placement.

4 Credits This course includes a one hour lab and field experience. Students will demonstrate knowledge of biological systematics, paleontology, evolution, vertebrate anatomy, ecology, and several topics within geology. Students will apply these concepts to the origin and evolution of the major groups of living things on Earth.

BIO 1314 Human Anatomy and Physiology I

Prerequisites: ENGL 0203 or adequate placement score or by meeting determined placement measures; MATH 0103 or adequate math placement.

An adequate biology placement test score or BIO 0123 or a college-level biological science class.

4 Credits Through a systematic study of the structure and function of the human body, its cells, tissues, organs and systems, the student will identify and describe basic anatomical structures and fundamental physiological processes that occur in health and disease for the major body systems. Laboratory work which requires dissection is an integral and required part of the course.

BIO 1414 Human Anatomy and Physiology II

Prerequisites: BIO 1314 with a grade of "C" or higher

4 Credits With Human Anatomy & Physiology I as a foundation, the student will advance his or her study of the structure and function of the human body and will identify and describe more detailed anatomical structures and more comprehensive physiological processes that occur in health through a systematic survey of the major body systems. Laboratory work which requires dissection is an integral and required part of the course.

BIO 1514 Microbiology of Infectious Disease

Prerequisites: BIO 1314

4 Credits This course is designed as an overview of microbiology as related to the health care profession. Primary concentration will be on the pathogenic microorganisms, including bacteria, virus, rickettsiae, fungi and protozoa. Emphasis will be placed on diseases caused by microorganisms, host/parasite relationships, aseptic technique, and control of nosocomial infections. Laboratory work is an integral component of this course.

BIO 2000 Special Topics

Prerequisites: ENGL 0203 or adequate placement score or by meeting determined placement measures; MATH 0203 or adequate math placement.

VARIABLE 1-4 Credits The student will demonstrate specified competencies in subject areas not covered in other biological science courses, but which are beneficial in providing a better understanding of the field. A specific topic is announced for each time of offering. Enrollment may be repeated with a change of topic.

BIO 2102 Clinical Anatomy

Prerequisites: ENGL 0203 or adequate placement score or by meeting determined placement measures; MATH 0103 or adequate math placement, PTA and OTA students only

2 Credits This course is designed to strengthen the student's knowledge of human anatomy in the areas of bones, muscles, and nerves as related to the areas of occupational and physical therapy. Models and prosected cadavers will be utilized to enrich the student's understanding of these systems.

BIO 2114 General Botany

Prerequisites: ENGL 0203, adequate placement score, or by meeting determined placement measures; MATH 0103 College Prep Math I or adequate math placement

4 Credits Through a systematic survey of major plant groups, the student will demonstrate his or her ability to apply principles of plant structure and function, genetics, classification and life cycles to explain evolutionary relationships of plants to each other and their economic importance to man. Laboratory work which may require dissection is an integral and required part of the course.

BIO 2125 Microbiology

Prerequisites: MATH 0203 or adequate math placement, Any four credit hour college-level biology course and a college-level chemistry course.

5 Credits Students are introduced to the biological requirements and activities of microorganisms which influence their roles as integral components of the ecosystem. Students demonstrate knowledge of basic principles of pathology, epidemiology and immunology in addition to performing basic laboratory techniques for isolating, characterizing and identifying common microorganisms.

BIO 2203 Cell Biology

Prerequisites: BIO 1124

3 Credits Students are introduced to the basic features of cells and methods of studying them. Emphases are on cellular chemistry, structure, functions of organelles and processes. Students will demonstrate knowledge of the mechanisms of cellular processes, energetics, reproduction and differentiation.

BIO 2215 General Zoology

Prerequisites: MATH 0403 or adequate math placement, BIO 1124

5 Credits General Zoology provides a systematic investigation of the major protistan and animal groups. Students discuss and correctly apply evolutionary, taxonomic, anatomical, physiological, behavioral, and ecological characteristics which exist within each of these groups. Laboratory work which requires dissection is an integral and required part of this course.

BIO 2224 Invertebrate Zoology

Prerequisites: BIO 1124

4 Credits The student will demonstrate knowledge of invertebrate animals with relationship to their taxonomy, anatomy, physiology, life history, ecology and evolution. Laboratory work which may require dissection is an integral and required part of the course.

BIO 2234 Human Physiology

Prerequisites: BIO 1124 and one college-level chemistry course.

4 Credits Students discuss major systems of the human body, contrast functional and regulatory activities of each and identify factors influencing homeostasis. Through the use of models, the student will recognize the relative influences and interrelationships between circulation, digestion, metabolism, respiration, kidney function, muscle action, endocrine and nervous control, and reproduction of other systems and the organism as a whole. Laboratory work which requires dissection is an integral and required part of the course.

BIO 2255 Human Anatomy

Prerequisites: BIO 1124

5 Credits Students study the development and gross morphology of the human body and its systems. This course may not be applied for Biology major credit. Open only to majors in physical education, science education, physical therapy, nursing, occupational therapy, physician's associate, dental hygiene, pharmacy, and selected fields. Laboratory dissection of human cadavers is required.

BIO 2324 Comparative Vertebrate Anatomy

Prerequisites: BIO 2215 or equivalent

4 Credits Through an investigation of early development, phylogeny and anatomical characteristics of various vertebrate species, the student will identify and contrast vertebrate morphology and discuss its evolutionary significance. Laboratory work which requires dissection is an integral and required part of the course.

BIO 2343 Genetics and Man

Prerequisites: meeting determined placement measures; MATH 0203 or adequate math placement.

3 Credits Through a study of genetic principles, the student will be able to describe mechanisms of heredity and the relationship of genetics to disease, inheritance, evolution and contemporary social problems.

BIO 2403 Ecology and Environmental Issues

Prerequisites: ENGL 0203 or adequate placement score or by meeting determined placement measures; MATH 0203 or adequate math placement. Assessment required prior to enrollment.

3 Credits The student will discuss and correctly apply fundamental ecological principles as a basis for understanding, evaluating, and suggesting possible solutions to environmental problems relating to man's manipulation of and role in the biosphere. Individual and group projects, discussion groups and selected readings provide the basis for understanding basic ecological principles as they apply to major issues. GenEd Requirement

BIO 2404 Ecology and Environmental Issues

Prerequisites: ENGL 0203 or adequate placement score or by meeting determined placement measures; MATH 0203 or adequate math placement. Assessment required prior to enrollment.

4 Credits The student will demonstrate his or her ability to discuss and correctly apply fundamental ecological principles as a basis for understanding, evaluating, and suggesting possible solutions to environmental problems relating to man's manipulation of and role in the biosphere. Individual and group projects, discussion groups and selected readings provide the basis for understanding basic ecological principles as they apply to major issues. Laboratory work which may require dissection is an integral and required part of the course.

Business

BUS 1000 Special Topics

Prerequisites: ENGL 0203 or adequate placement score, or by meeting determined placement measures.

VARIABLE 1-4 Credits The student will become familiar with subjects not covered in other business courses but which are beneficial to students wanting a greater understanding of the business cycle. A specific subject is announced for each time of offering. May be repeated with a change of topic.

BUS 1013 Introduction to Business

Prerequisites: MATH 0103 or adequate math placement and ENGL 0203 or adequate placement score, or by meeting determined placement measures.

3 Credits The student will become familiar with the economic and social setting of business in the world and the structure of business and management of human and fiscal resources. The student will be able to demonstrate an understanding of these concepts as they are related to American business operations and public policy.

BUS 1083 Employment Transitions

Prerequisites: None

3 Credits This class will provide students an opportunity to gain the proper skills for successful entry or reentry into their field of interest for employment. Students will be required to complete a personal inventory assessing their interests, abilities, and experiences for strategic career planning. Job readiness skills, including keyboarding, resume preparation, interviewing techniques, interpersonal ("soft skills") and professional demeanor, will be addressed. Particular focus will regard the qualities that today's employers are seeking in job candidates, such as integrity, accountability, competence, and critical thinking.

BUS 1323 Mathematics for Business Careers

Prerequisites: MATH 0103 or adequate math placement and ENGL 0203 or adequate placement score, or by meeting determined placement measures.

3 Credits The student will demonstrate the ability to use basic mathematical processes, and use mathematical concepts in solving everyday business problems in operations, trade, taxation, accounting and finance.

BUS 1713 Beginning Word Processing

Prerequisites: ENGL 0106 or adequate placement score.

3 Credits Students will use word processing software to create, modify, store, retrieve, and print documents. Word processing features include create, edit, print, format, spell-check, thesaurus, file management, find/replace and tables and graphics. This course is an introduction and overview with the emphasis being on learning and applying the mechanics of the software. This course satisfies the computer proficiency requirement.

BUS 2000 Cooperative Education

Prerequisites: ENGL 0203 or adequate placement score, or by meeting determined placement measures.

VARIABLE 1-3 Credits The student will demonstrate competencies in selected topics which are beneficial to students in the business field. Each course will focus on special areas related to procedures and functions.

BUS 2033 Business Communication

Prerequisites: ENGL 1113 or by evaluation. Criteria for evaluation is in division office.

3 Credits Business Communication is a survey course of communication skills needed in the business environment. Course content includes business writing such as e-mail, memos, letters, reports, employment communication, and other types of digital media; delivering oral presentations; and developing interpersonal soft skills. Critical thinking and problem solving skills are emphasized. Development of these skills is integrated with the use of technology. This course satisfies the computer proficiency requirement.

BUS 2043 Business Ethics

Prerequisites: ENGL 0203 or adequate placement score, or by meeting determined placement measures.

3 Credits Student will explore standards of honesty and honorable human conduct in the world of business, focusing on how people's plans and intentions affect others.

BUS 2073 Legal Environment of the Workplace

Prerequisites: ENGL 1113 and POLSC 1113.

3 Credits Students will study the American Legal System and how it applies to the workplace. Students will demonstrate knowledge in court systems, legal reasoning, law and ethics, civil procedure, agency, torts, negligence, labor law, and employment discrimination.

BUS 2123 Administrative Office Systems

Prerequisites: ENGL 0203, adequate placement score, or by meeting determined placement measures.

3 Credits This course is designed to emphasize the management procedures of various office environments. Topics include ethics, employer-employee relations, layout and space design, work simplification, cost control, human relations, office personnel policies and business information systems.

BUS 2473 Business Spreadsheet Applications

Prerequisites: ENGL 0203, adequate placement score, or by meeting determined placement measures; MATH 0203, or adequate math placement.

3 Credits The student will develop ten-key by touch skills. Students will format spreadsheets using effective design principles, enter common spreadsheet formulas and functions, sort data, and use graphic/chart features to solve business problems. Appropriate industry standard spreadsheet software programs will be used. This course satisfies the computer proficiency requirement.

BUS 2493 Advanced Excel

Prerequisites: (R) (W), BUS 2473

3 Credits This course builds on the previous BUS 2473, Business Spreadsheet Applications. Students will learn advanced Excel features for application in the business world today. This course satisfies the computer proficiency requirement.

Chemistry

CHEM 1103 Chemistry Around Us

Prerequisites: ENGL 0203, adequate placement score, or by meeting determined placement measures; MATH 0203 or adequate math placement.

3 Credits A course designed for students having no previous training in chemistry or for whom the study of chemistry will terminate with this experience. Upon completion of this course, the student will be able to discuss such fundamental concepts of chemistry as atomic structure and the periodic table, chemical bonding, nuclear energy, chemical elements and compounds, and the significance of carbon and some other elements to life itself.

CHEM 1115 General Chemistry I

Prerequisites: ENGL 0203, adequate placement score, or by meeting determined placement measures; MATH 1483 or MATH 1533, or both MATH 0313 and High School Chemistry or CHEM 1123.

5 Credits This course is designed for science and engineering majors. The course covers nomenclature, atomic and molecular structure, stoichiometry, acid/base and other aqueous reactions, states of matter, phase changes, gas laws, and an introduction to thermochemistry. Laboratory experience is an integral part of the course.

CHEM 1123 Survey of General, Organic, and Biochemistry

Prerequisites: ENGL 0203, adequate placement score, or by meeting determined placement measures; MATH 0313 or adequate math placement.

3 Credits This course is designed for nursing and allied health programs which do not require General Chemistry I for science majors. This course is also appropriate for individuals interested in a general overview of chemistry. The course covers selected topics in general chemistry including unit conversions, atomic structure, chemical bonding, acids, bases, pH, chemical equilibrium, electrolytes, and properties of solutions. The course also introduces topics from organic and biochemistry. The relationship between chemical principles and human health is emphasized throughout the course.

CHEM 1131 Laboratory for Survey of General, Organic, and Biochemistry

Prerequisites: ENGL 0203, adequate placement score, or by meeting determined placement measures; MATH 0313 or adequate math placement.

Prerequisite or Corequisite: CHEM 1123

1 Credit Students apply chemical principles discussed in CHEM 1123 in a laboratory setting.

CHEM 1144 Technical Chemistry

Prerequisites: ENGL 0203, adequate placement score, or by meeting determined placement measures; APPM 1233 or MATH 1613

4 Credits This is a course designed primarily for technical career programs. Upon completion of this course, the student will be able to apply chemical concepts and techniques to solve technical problems in the areas of chemistry, environmental measurements and instrumentation. The student will demonstrate a basic knowledge of structure and bonding, the nature of solutions, states of matter, acid-base phenomena, thermodynamics, electrochemistry and elementary organic chemistry. Laboratory experience is an integral part of the course.

CHEM 1215 General Chemistry II

Prerequisites: CHEM 1115 with a grade of "C" or better; MATH 1483 or MATH 1533 with a grade of "C" or better.

5 Credits This course is a continuation of CHEM 1115 with emphasis on thermochemistry, intermolecular forces, properties of solutions, acid/base properties, kinetics, equilibrium, thermodynamics, electrochemistry, and organic chemistry. Laboratory is an integral part of the course.

CHEM 1415 Chemistry for Engineers

Prerequisites: ENGL 0203, adequate placement score, or by meeting determined placement measures; MATH 1483 or MATH 1533 with a "C" or better or placement in MATH 1613 or above; high school chemistry is strongly recommended. Enrollment is restricted to pre-engineering majors.

5 Credits This course is designed for engineering majors that require only a single semester of chemistry. It covers chemical principles relevant for engineers including the electronic structure of atoms and molecules; reactions and stoichiometry; the properties of solids, liquids, and gases; solutions; acids and bases; thermochemistry; electrochemistry; kinetics; and equilibrium. Laboratory is an integral part of the course. This course cannot be used as a prerequisite for CHEM 1215.

CHEM 2111 Organic Chemistry I Laboratory

Prerequisites: Concurrent enrollment in CHEM 2114 or completion of CHEM 2114 with a "C" or better

1 Credit Designed to accompany Organic Chemistry I lecture, this lab course emphasizes techniques used for purifying and characterizing organic compounds, including infrared spectroscopy. Writing lab reports is an integral part of the course.

CHEM 2114 Organic Chemistry I

Prerequisites: CHEM 1215 with a grade of "C" or better.

4 Credits This course is the first of a two-semester sequence of organic chemistry for science and chemical engineering majors as well as students seeking to enter the fields of medicine, dentistry, pharmacy, and veterinary medicine. Students will master the fundamental concepts of structure, functional groups, and reactions of aliphatic compounds along with selected reaction mechanisms.

CHEM 2121 Organic Chemistry II Laboratory

Prerequisites: CHEM 2111 with a "C" or better and either concurrent enrollment in CHEM 2124 or completion of CHEM 2124 with a "C" or better

1 Credit Designed to accompany Organic Chemistry II lecture, this lab course emphasizes organic synthesis and structure analysis methods such as proton NMR. Writing lab reports is an integral part of the course.

CHEM 2124 Organic Chemistry II

Prerequisites: CHEM 2114 with a grade of "C" or better.

4 Credits This course is the second of a two-semester sequence of organic chemistry for science and chemical engineering majors as well as students seeking to enter the fields of medicine, dentistry, pharmacy, and veterinary medicine. Students will master the concepts of structural theory, reactions, and reaction mechanisms of the principal functional groups of organic compounds which were not included in the first course.

CHEM 2990 Chemical Research Internship

Prerequisites: CHEM 1115 or by evaluation. § Criteria for evaluation is in division office.

1-3 Credits Students work ten to sixteen weeks in an approved research facility under the supervision of an on-site mentor on a full-time or part-time basis. Students will gain experience in applied research in a real-world setting and will help produce or improve a product or process. Credit hours awarded are dependent upon number of hours worked. This course may be repeated at the same site or a different approved internship site with permission of the Internship Coordinator.

Child Development

CD 1113 Basic Child Care I

Prerequisites: ENGL 0106 or adequate placement score

3 Credits This course is designed for students preparing for Early Childhood Professional Level I. The student will acquire basic knowledge about health and safety, classroom organization, and care of infants and toddlers. The student will demonstrate an ability to apply the knowledge by working in a child care center a minimum of 100 hours under the instructor's supervision.

CD 1123 Basic Child Care II

Prerequisites: ENGL 0106 or adequate placement score

3 Credits This course is designed for students preparing for the Early Childhood Professional Level I. The student will acquire advanced knowledge about health and safety, classroom organization, and care of infants and toddlers. The student will demonstrate an ability to apply the knowledge by working in a child care center a minimum of 100 hours under the instructor's supervision.

CD 1133 Advanced Child Care I

Prerequisites: ENGL 0106 or adequate placement score

3 Credits This course is designed for students preparing for the Early Childhood Professional Level II. The student will acquire advanced knowledge about growth and development from birth through eight years, guidance, and creative activities. The student will demonstrate an ability to apply the knowledge by working in a child care center a minimum of 100 hours under the instructor's supervision.

CD 1153 Advanced Child Care II

Prerequisites: ENGL 0106 or adequate placement score

3 Credits This course is designed for students preparing for the Early Childhood Professional Level II. The student will acquire advanced knowledge about growth and development from birth through eight years, guidance, and creative activities. The student will demonstrate an ability to apply the knowledge by working in a child care center a minimum of 100 hours under the instructor's supervision.

CD 1211 Parenting

Prerequisites: None

1 Credit In this course, students will learn some of the best practices in parenting, including: the basic care of a child, guidance and discipline, the importance of interactive play, the understanding of language and literacy development, knowledge of the basic ages and stages of child development, knowledge of a child's microsystem, and balancing multiple responsibilities.

CD 2000 Special Topics in Child Development

Prerequisites: ENGL 0203, adequate placement score, or by meeting determined placement measures

VARIABLE 1-6 Credits The student will identify patterns of child growth and development, and will complete appropriate plans or designs for one or more of the following: learning programs, creative activities, nutritional diets, community relations, management activities, salesmanship, and budgeting.

CD 2113 Introduction to Child Development

Prerequisites: ENGL 0203, adequate placement score, or by meeting determined placement measures

3 Credits This course will identify patterns of the physical, intellectual and emotional/psycho-social development of children. The course will recognize the major theories of human development as they apply to children.

CD 2153 Introduction to Early Childhood Education

Prerequisites: ENGL 0203, adequate placement score, or by meeting determined placement measures

3 Credits This course explores the early childhood profession and its multiple historical, philosophical, and social foundations, including how these foundations influence current thought and practice. The course contains a laboratory component which must be completed at off-campus approved sites. Students must meet pre-laboratory requirements.

CD 2213 Child and Family in Society

Prerequisites: ENGL 0203, adequate placement score, or by meeting determined placement measures

3 Credits This course emphasizes promoting optimum development and support of families and children within various settings and the larger community.

CD 2223 Marriage

Prerequisites: ENGL 0203, adequate placement score, or by meeting determined placement measures

3 Credits Students will explore the roles of dating, intimate relationships and marriage in present day society.

CD 2333 Curriculum and Play

Prerequisites: Earned at least a "C" in CD 2113

3 Credits This course discusses how to create, evaluate, and select developmentally appropriate materials, equipment, and environments that support children's early learning. It provides the opportunity to plan, implement, and evaluate an integrated curriculum that focuses on children's needs and interests and takes into account culturally valued content and children's home experiences. The laboratory component of the course must be completed at off-campus approved sites. Students must meet pre-laboratory requirements.

CD 2353 Child Health, Safety and Nutrition

Prerequisites: ENGL 0203, adequate placement score, or by meeting determined placement measures.

3 Credits This course explores the identification and implementation of best practices for health, safety, and nutrition of young children in a variety of early childhood settings. The laboratory component of the course must be completed at off-campus approved sites. Students must meet pre-laboratory requirements.

CD 2363 Guidance of Young Children

Prerequisites: Earned at least a "C" in CD 2113

3 Credits This course presents the theoretical basis for the use of positive, constructive child guidance and discipline techniques in programs serving children. The laboratory component of the course must be completed at off-campus approved sites. Students must meet pre-laboratory requirements.

CD 2443 Language Literacy for Young Children

Prerequisites: ENGL 0203, adequate placement score, or by meeting determined placement measures.

3 Credits The student will demonstrate knowledge of the language and literacy development and learning needs of young children. The student will demonstrate skills in planning and presenting activities for children in the areas of language and literacy.

CD 2503 Human Sexuality

Prerequisites: PSY 1113 OR CD 2113

3 Credits This course is an introductory overview of the field of human sexuality. It will explore the psychological, physiological, and sociocultural aspects of human sexual behavior. Emphasis will be placed on the cultural and biological diversity of sexual expression.

CD 2623 Supervised Laboratory

Prerequisites: ENGL 1113; Earned at least a "C" in CD 2333, CD 2353

3 Credits Students will work a minimum of 96 clock hours at a laboratory location to be approved by the instructor. Students will provide for children's health and safety, guide their behavior, plan and execute activities in all curriculum areas, communicate with children's families, and interact with staff on a professional level. Students must meet pre-laboratory requirements.

CD 2631 Curriculum Development and Application - Infant and Toddler

Prerequisites: ENGL 1113; Earned at least a "C" in CD 2333 and CD 2353

1 Credit Students will demonstrate the ability to plan and execute developmentally appropriate activities in all curriculum areas. Students will also demonstrate skill in guiding infants and/or toddlers and providing for their health and safety in a group setting. A minimum of twenty-eight contact hours is required, which must be completed in approved off-campus early care and education facilities at discretion of instructor. Students must meet pre-laboratory requirements. AAS majors must document a minimum of fifty clock observation and contact hours with children in a variety of settings, including the workplace.

CD 2641 Curriculum Development and Application - Preschool

Prerequisites: ENGL 1113; Earned at least a "C" in CD 2333 and CD 2353

1 Credit Students will demonstrate the ability to plan and execute developmentally appropriate activities in all curriculum areas. Students will also demonstrate skill in guiding preschoolers and providing for their health and safety in a group setting. A minimum of twenty-eight contact hours is required, which must be completed in approved off-campus early care and education facilities at discretion of instructor. Students must meet pre-laboratory requirements. AAS majors must document a minimum of fifty clock observation and contact hours with children in a variety of settings, including the workplace.

CD 2713 Infant/toddler Development and Educational Program

Prerequisites: ENGL 1113

3 Credits This course will focus specifically on the cognitive, psychosocial, and physical development of the child from conception up to age 3. Attention will focus on the consequential care required for infants/toddlers in early care and education settings. The laboratory component of the course must be completed at off-campus approved sites. Students must meet pre-laboratory requirements.

CD 2813 Early Childhood Center Personnel Development Management

Prerequisites: ENGL 1113; Earned at least a "C" in CD 2113

3 Credits This course is for individuals wishing to improve their management skills with personnel working in early care and education programs. Students will examine the principles, procedures and organizational techniques used in the development and management of personnel including employment practices, employee assessment and evaluation, orientation, training, related federal and state legislation and regulations, diversity, employee/employer relations, compensation, advocacy, ethics, and leadership.

CD 2833 Early Childhood Center Financial Planning and Management

Prerequisites: ENGL 1113; Earned at least a "C" in CD 2113

3 Credits This course is for individuals wishing to improve their skills in designing and managing budgets and financial plans for early care and education programs. Students will have practical experience utilizing guidelines and tools for creating budgets as well as other financial issues pertinent to the field. Other content will include governmental regulations as they pertain to budgets, insurance, customer service, collection issues, financial policies and procedures, fund raising, and government programs and their relationships to financial management of early care and education programs.

Clinical Research Coordinator

CRC 1103 Introduction to Clinical Research

Prerequisites: ENGL 0203, adequate placement score, or by meeting determined placement measures; Admission to the CRC Program

3 Credits The student will demonstrate knowledge of the history of human subject research, evolution of rules protecting human subjects, roles of the clinical research teams, clinical trial phases, and responsibilities of clinical research organizations.

CRC 1112 Vital Signs and Venipuncture

Prerequisites: BIO 1414; Admission to the CRC Program

2 Credits The student will 1) successfully measure blood pressure, pulse rate, and temperature, 2) draw intravenous blood, 3) perform human tissue and fluid storage procedures, and 4) utilize universal precautions for handling biological materials.

CRC 1203 Medical Ethics and Client Care

Prerequisites: CRC 1103; Admission to the CRC Program

3 Credits The student will be able to describe the fundamentals of ethical principles involving human research subjects, understand informed consent and the role of the Internal Review Board, and identify vulnerable populations.

CRC 1303 Clinical Trials and Research Regulations

Prerequisites: CRC 1103; Admission to the CRC Program

3 Credits The student will receive an overview of federal and international guidelines governing clinical research and drug trials, including Good Clinical Practices and International Council on Harmonization guidelines. An emphasis will be placed on understanding of research organization compliance, responsibilities of the Internal Review Board and the Health Insurance Portability and Accountability Act (HIPAA). The student will identify and complete required regulatory forms, define human subject protection guidelines, compare federal versus international guidelines for clinical research and discuss conflict of interest issues.

CRC 1503 Clinical Trials and Research Internship I

Prerequisites: CRC 1203; CRC 1303; Admission to the CRC Program

3 Credits Students will shadow clinical research teams for four weeks at a private or university clinical research facility. Topics learned in the classroom will be demonstrated in an actual clinical research setting, giving the student exposure to a real-world setting while learning practical applications.

CRC 2003 Clinical Database Applications

Prerequisites: CRC 1103; Admission to the CRC Program

3 Credits The student will demonstrate mastery of the concepts of clinical research data management systems, quality assurance, data confidentiality and security, accurate preparation of case reports.

CRC 2103 Clinical Research Design

Prerequisites: CRC 1203; CRC 1303; Admission to the CRC Program

3 Credits Students will acquire a basic knowledge of research design methodologies, data organization and presentation, participant eligibility, adverse event documentation, site visit and audit preparation, and budget design.

CRC 2113 Clinical Research Site Management

Prerequisites: CRC 2103; Admission to the CRC Program

3 Credits The student will acquire a basic knowledge of research site organization, operation and management. The student will learn the process involved in grant applications, study initiation, documentation requirements, and site evaluations. Emphasis will be placed on defining process flow and interactions with Institutional Review Boards, sponsors, regulators, investigators, and the community.

CRC 2203 Pathophysiology

Prerequisites: CHEM 1123; BIO 1414; AHP 1013; Admission to the CRC Program

3 Credits The student will utilize critical thinking models to understand the dynamic aspects of human health and disease processes. The student will develop a foundational knowledge of the pathogenesis and clinical manifestation of disease in order to work effectively with subject data and communicate with other clinical research professionals.

CRC 2213 Pharmacology for Clinical Research

Prerequisites: CHEM 1123; BIO 1414; Admission to the CRC Program

3 Credits The student will correctly spell names of major drugs, place major drugs into correct therapeutic categories and identify indications, side effects, and trade and generic names. The student will identify and discuss the purpose of nutritional products, blood modifiers, hormones, diuretics, diabetes medications, cardiovascular agents, respiratory drugs, and gastrointestinal agents.

CRC 2313 Clinical Protocol Design

Prerequisites: CRC 2103; CRC 2113; Admission to the CRC Program

3 Credits Through study, discussion, and classroom activities the student will identify different research designs, master the rules for writing protocols, understand ethical issues involved in research protocol design, and develop the skills to design data collection forms.

Communications

COM 1000 Special Topics

Prerequisites: ENGL 0203, adequate placement score, or by meeting determined placement measures

VARIABLE 1-3 Credits The student will demonstrate competencies in subjects not covered in other communications courses. Each course will cover a specific topic and may be repeated with a change in content.

COM 1123 Interpersonal Communications

Prerequisites: ENGL 0203, adequate placement score, or by meeting determined placement measures

3 Credits The student will be able to identify why certain things happen as they do when two or more individuals come together to communicate for a specific purpose. The student must attest to his or her ability to understand the principles of interpersonal communication with emphasis on dyads, small groups, analysis of communication models and nonverbal communication, applying understanding to the major types of interpersonal communication problems in the work environment and in daily human relations.

COM 1323 Oral Interpretation

Prerequisites: ENGL 0203, adequate placement score, or by meeting determined placement measures

3 Credits Through a series of performance activities, the student will demonstrate comprehension of the principles of oral interpretation of literature, emphasizing an understanding of the author's meaning along with implementing techniques for the communication of that meaning to an audience.

COM 2213 Intro to Public Speaking

Prerequisites: ENGL 0106 or adequate placement score

3 Credits Given the principles of effective listening and speaking, the student will assimilate those skills into his or her physical and psychological worlds. After being exposed to public, business and professional speaking, the student will apply the principles of invention, organization, style, and delivery through practical exercises and will use the principles of rhetorical criticism in discussing speeches delivered in class.

Computer Science

CS 1000 Special Topics

Prerequisites: MATH 0203 or adequate math placement; ENGL 0203, adequate placement score, or by meeting determined placement measures

VARIABLE 1-4 Credits The student will demonstrate specified competencies in subjects not included in other computer science courses but which benefit students wanting additional training in or comprehension of the field. A specific topic is announced for each offering. Enrollment may be repeated with a change of topic. This course satisfies the computer proficiency requirement.

CS 1103 Introduction to Computers and Applications

Prerequisites: MATH 0103 or adequate math placement; ENGL 0203, adequate placement score, or by meeting determined placement measures

3 Credits This hands-on course affords students a basic understanding of computers and their application. Upon completion of this course, the student will be able to demonstrate the ability to use a computer operating system, an office suite, productivity tools, as well as the Internet at an introductory level. Advanced Standing is available. This course satisfies the computer proficiency requirement.

CS 1143 Beginning Programming

Prerequisites: ENGL 0203, adequate placement score, or by meeting determined placement measures; MATH 0313 or adequate math placement or by evaluation. § Criteria for evaluation is in division office.

3 Credits Designed for Computer Science majors, this course affords students a basic understanding of computer programming. Students will utilize accepted programming concepts and perform number system conversions and arithmetic. In addition, they will design and code structured modular programs using design tools such as hierarchy charts, flowcharts, and pseudocode. This course satisfies the computer proficiency requirement.

CS 1153 Introduction to Computing Technologies

Prerequisites: ENGL 0203, adequate placement score, or by meeting determined placement measures; MATH 0103 or adequate math placement.

3 Credits Students will learn fundamental concepts of computing technologies. Topics will include computer hardware, operating systems, application software, networking, information security and privacy, information systems, program development, database management systems, social aspect of computing technologies, and cloud computing. This course satisfies the computer proficiency requirement.

CS 1333 Database Management Applications

Prerequisites: ENGL 0203, adequate placement score, or by meeting determined placement measures; MATH 0203 or adequate math placement.

3 Credits The student will use a selected database management program to create and edit database files. The student will also search, organize, and build reports, forms, and templates with the database files. This course satisfies the computer proficiency requirement.

CS 1343 Spreadsheet Applications

Prerequisites: ENGL 0203, adequate placement score, or by meeting determined placement measures; MATH 0313 or adequate math placement.

3 Credits Using selected spreadsheet software on a microcomputer, the student will apply the basic theoretical and practical concepts of an electronic spreadsheet as used in business applications. Study will include the design and creation of worksheets, templates, graphs, macros, and other options as they apply to the software being used. This course satisfies the computer proficiency requirement.

CS 1353 Computer Operating Systems

Prerequisites: ENGL 0203, adequate placement score, or by meeting determined placement measures; MATH 0203 or adequate math placement; prerequisite or co-requisite CS 1103

3 Credits Students will learn the following important areas through a combination of lectures and hands-on projects: installing, maintaining and optimizing Windows operating systems, troubleshooting Windows and applications, connecting to and setting up a network, Windows resources on a network, computer security strategies, mobile devices, and client-side virtualization. A+ Certification Preparation Course. This course satisfies the computer proficiency requirement.

CS 1363 Digital Media Development

Prerequisites: MATH 0203 or adequate math placement; Prerequisite or Corequisite: CS 1103 or by evaluation. § Criteria for evaluation is in division office.

3 Credits This hands-on course affords students a basic understanding of industry standard design applications. Upon completion of this course, the student will be able to demonstrate the ability to create computer illustrations, graphics, page layouts, animations, video and audio, at an introductory level. This course satisfies the computer proficiency requirement.

CS 1413 Computer Hardware

Prerequisites: ENGL 0203, adequate placement score, or by meeting determined placement measures; MATH 0203 or adequate math placement; prerequisite or co-requisite CS 1103

3 Credits Students will learn the following through class lectures and hands-on projects: identification, configuration, maintenance, troubleshooting, and repair of PC hardware including mainboards, BIOS, processors, memory, storage devices, peripherals, and printers. Other IT-related issues such as networks, safety and environmental concerns, customer relations, and professionalism are also presented. A+ Certification Preparation Course. This course satisfies the computer proficiency requirement.

CS 1543 Introduction to Scripting

Prerequisites: ENGL 0203, adequate placement score, or by meeting determined placement measures; MATH 0313 or adequate math placement

3 Credits Students will learn to use a scripting language to create scripts to automate the execution of tasks. They will learn to design, code, and test applications using the scripts. Topics include basic data types, control structures, regular expressions, input/output handling, and textual analysis. This course satisfies the computer proficiency requirement.

CS 2000 Special Topics

Prerequisites: ENGL 0203, adequate placement score, or by meeting determined placement measures; MATH 0203 or adequate math placement.

VARIABLE 1-6 Credits The student will demonstrate competencies with subjects not covered in other computer science courses. Each course will cover a specific topic and may be repeated with a change in content. This course satisfies the computer proficiency requirement.

CS 2113 Computer Based Information Systems

Prerequisites: ENGL 0203, adequate placement score, or by meeting determined placement measures; MATH 0203 or adequate math placement.

3 Credits Covers theory and practice for the design and use of computer-based information systems in organizations, with a focus on the relational database. Student projects will include designing and implementing relational database applications and designing a web page. This course satisfies the computer proficiency requirement.

CS 2123 Assembly

Prerequisites: MATH 0313 or adequate math placement, CS 1143 or by evaluation. § Criteria for evaluation is in division office.

3 Credits The student will demonstrate an understanding of the structure and operation of assemblers. Student will use IBM mainframe assembly language to solve programming problems involving Input/Output definitions, Loops, Decimal and fixed point arithmetic, register operations, control structures and report editing. This course satisfies the computer proficiency requirement.

CS 2143 Digital Video Editing

Prerequisites: MATH 0203 or adequate math placement, CS 1363.

3 Credits Students will develop both technical skills and creative techniques in a project-based learning environment. Many aspects of digital editing will be applied including digitizing audio and video, the composition of computer-generated graphics and animation, multiple audio layers, title overlay, and special effects. This course satisfies the computer proficiency requirement.

CS 2153 Cloud Computing

Prerequisites: CS 1353

3 Credits Students will demonstrate their understanding of planning, configuring, implementing, and maintaining cloud computing infrastructure, as well as the services it supports such as Infrastructure as a Service (IaaS), Platform as a Service (PaaS), and Software as a Service (SaaS). This course satisfies the computer proficiency requirement.

CS 2163 Java

Prerequisites: MATH 0313 or adequate math placement, CS 1143 or by evaluation. § Criteria for evaluation is in division office.

3 Credits Student will develop object-oriented Java applications and applets, which demonstrate comprehension of fundamental programming structures, object-oriented programming, graphics, event handling, interface components, programming for the Internet, data structures, and exception handling. This course satisfies the computer proficiency requirement.

CS 2173 Oracle

Prerequisites: MATH 0313 or adequate math placement, CS 1143.

3 Credits Using Oracle as a platform, students will learn relational database concepts, sound database design and development techniques, and SQL commands. Topics include how to create and modify database tables; retrieve data from database tables; use subqueries to retrieve data; use table constraints, sequences, indexes, synonyms, views and functions; create users and assign privileges to users; create printable reports through SQL*Plus commands; practice SQL statement tuning. This course satisfies the computer proficiency requirement.

CS 2183 Linux

Prerequisites: MATH 0203 or adequate math placement, CS 1103 or by evaluation. § Criteria for evaluation is in division office.

3 Credits This course is an introduction to the Linux operating system for users. It is designed for those with a DOS/Windows operating system background with little or no knowledge of Linux. Topics include the development of Linux; basic Linux operating system concepts; a comparison of Linux to MS Windows; frequently used Linux programs and utilities, shells, editors, and tools; X window GUI and applications; Linux and the internet; setting up Apache web server software; basic HTML and CGI programming for Linux; use of virtual machine software to create virtual machines of guest operating system on top of host operating system. Linux+ Certification Preparation Course. This course satisfies the computer proficiency requirement.

CS 2193 Supporting Desktop Applications

Prerequisites: CS 1353

3 Credits Students will learn how to install, configure and support Microsoft Office applications running in a Microsoft Windows environment. Real-world examples and interactive activities are used to reinforce the following key concepts: configuring Internet Explorer and Outlook Express; resolving issues related to customizing Office Application; migrating from Outlook Express to Outlook; identifying and troubleshooting network problems; configuring Office security settings; and monitoring security vulnerabilities and updates. This course satisfies the computer proficiency requirement.

CS 2223 Systems Analysis and Design

Prerequisites: MATH 0313 or adequate math placement, ENGL 1113 and a 2000 level programming language.

3 Credits Students will investigate and participate in the analysis and design of information systems through application of the Systems Development Life Cycle. Topics include the role of the analyst, review of common business systems, preparation of data-gathering instruments, database design and normalization and module design. Computer Aided Software Engineering (CASE) tools such as data dictionary, data flow diagramming, data modeling, and structure charts will also be covered. This course satisfies the computer proficiency requirement.

CS 2283 Introduction to Virtualization

Prerequisites: CS 1353 or by evaluation § Criteria for evaluation is in division office.

3 Credits This course covers fundamental concepts and practical knowledge of virtualization technology. Students will learn to install and configure virtualization software, manage virtual networking and storage, deploy, manage, and migrate virtual machines, manage user access to the virtual machine infrastructure, monitor resource usage, increase scalability, apply patches, and manage higher availability and data protection. Students will gain hands-on experience through using virtualization software platforms. This course satisfies the computer proficiency requirement.

CS 2303 Networking Technologies

Prerequisites: MATH 0203 or adequate math placement; CS 1103

3 Credits Students will learn how to install, configure, and troubleshoot basic networking hardware, protocols, and services and to describe the features and functions of networking components. A foundational knowledge in the important areas of media and topologies, protocols and standards, network implementation, and network support will be developed using a combination of lectures and interactive assignments. This course satisfies the computer proficiency requirement.

CS 2363 C++

Prerequisites: CS 2163

3 Credits This course is a continuation of the study of object-oriented programming covered in CS 2163 Java. Students will use C++ to write programs that demonstrate comprehension of the advanced object-oriented features of the C++ language and of common data structures. Topics include pointer manipulation, overloaded operators, friends, exception handling, templates, linked lists, stacks, queues, trees, and time complexity associated with sorts and searches. This course satisfies the computer proficiency requirement.

CS 2373 iOS Programming

Prerequisites: CS 1543 or CS 1143

3 Credits Students will learn the skills to develop mobile applications on Apple mobile devices. Topics covered include Swift programming language, mobile app software architecture, Apple Integrated Development Environment Xcode, Interface Builder, and other related Apple software development kit frameworks. This course satisfies the computer proficiency requirement.

CS 2403 Computer Support Services

Prerequisites: ENGL 1113; MATH 0203 or adequate math placement and 9 credit hours of Computer Science courses.

3 Credits Students will demonstrate their understanding of planning, implementing, and maintaining a support center for both internal and external users of computer hardware and software. The main topics will include: the Help Desk, design of hardware and software specifications, performing a needs assessment, design of evaluation instruments, creation of both technical and non-technical documentation, working with customers in a support role, and ethical standards for the computing professional. This course satisfies the computer proficiency requirement.

CS 2413 Web Site Development

Prerequisites: MATH 0203 or adequate math placement. ENGL 0203, adequate placement score, or by meeting determined placement measures.

3 Credits Students will develop the skills needed to create a web site for personal or professional use. Design considerations will include accessibility standards, navigation techniques, audience needs, browser/platform concerns, and connection speeds. HTML, CSS along with a combination of other current technologies will be utilized for topics such as: building, formatting, enhancing, and publishing pages; maintaining a web site; manipulating graphics; creating printer and mobile versions; and incorporating JavaScript at an introductory level. This course satisfies the computer proficiency requirement.

CS 2433 Digital Media Scripting

Prerequisites: ENGL 0203, adequate placement score, or by meeting determined placement measures; MATH 0203 or adequate math placement.

3 Credits Students will develop both technical skills and creative techniques in a project-based learning environment. The student will learn to script in icon-based and command-based authoring languages to create interactive digital media and online applications. This course satisfies the computer proficiency requirement.

CS 2443 SQL Server

Prerequisites: MATH 0313 or adequate math placement, CS 1143 or by evaluation. § Criteria for evaluation is in division office.

3 Credits Students will learn terms, concepts and features needed to work with most relational databases. Using SQL Server databases and tools, they will learn concepts on how to design a database, retrieve data from and manipulate data in a database. They will also learn SQL programming and will be able to work with database features that will include views, stored procedures, functions, triggers and others. This course satisfies the computer proficiency requirement.

CS 2453 Visual Basic

Prerequisites: MATH 0313 or adequate math placement, CS 1143 or by evaluation. § Criteria for evaluation is in division office.

3 Credits The students will use Visual Basic to create object-oriented, event-driven programs. This course teaches the students to handle the visual interface and also learn programming concepts that include objects, decisions, loops, dialog boxes, arrays, menus, subs, functions, files, simple data access and various other programming topics as they apply to Visual Basic. This course satisfies the computer proficiency requirement.

CS 2463 Advanced Java

Prerequisites: CS 2163

3 Credits Student will develop Java applications and applets, which demonstrate comprehension of advanced programming structures and practices, object-oriented programming, fundamental data structures (arrays, linked lists, stacks and queues), SWING, Java Beans, database programming (JDBC), and distributed computing (Sockets/RMI). This course satisfies the computer proficiency requirement.

CS 2503 Network Administration

Prerequisites: CS 1353

3 Credits The students will use a network operating system to create and manage a local area network. The topics to be covered include creating and administering user and group accounts, managing network resources and administering permissions for files and folders, setting up and administering the printing environment, using the auditing functions, backing up and restoring files and folders. Preparatory course for certification through Microsoft. This course satisfies the computer proficiency requirement.

CS 2513 Client-Side Programming

Prerequisites: MATH 0313 or adequate math placement, CS 2413 and CS 1143 or by evaluation. § Criteria for evaluation is in division office.

3 Credits Students will create dynamic web applications using client-side programming. A combination of current scripting/programming languages and web page authoring software will be utilized for topics such as: using the Document Object Model, coding event handlers, validating user input, manipulating graphics, and creating interactive web pages. This course satisfies the computer proficiency requirement.

CS 2553 Advanced Visual Basic

Prerequisites: CS 2453

3 Credits Students will expand their knowledge of Visual Basic as used in business applications both for Windows and for the Web. Included will be topics such as advanced controls, MDI programming, collections, object-oriented programming, multi-tier applications, data access, ADO.Net, ASP.Net, and report writing. This course satisfies the computer proficiency requirement.

CS 2563 C#

Prerequisites: CS 2163

3 Credits Students will develop C# programs using the .NET framework that demonstrate comprehension of language syntax, fundamental program structures, object-oriented programming, windows applications, web applications, and database applications. Students will use ADO.NET, XML, ASP.NET, SOAP, and REST to create their applications. This course satisfies the computer proficiency requirement.

CS 2573 Oracle Database Administration

Prerequisites: CS 2173 or CS 2443

3 Credits Students will develop the skills needed for database administration. Topics covered include software installation, the creation of new databases, database architecture, management of database files, administration of user accounts, roles, privileges and profiles, database performance monitoring, and database backup and recovery strategies. This course satisfies the computer proficiency requirement.

CS 2610 Internship**

Prerequisites: MATH 0203 or adequate math placement, 15 credit hours of Computer Science courses.

1-3 Credits A practicum course intended to provide the student with work experience in various areas in his/her major under the supervision of an experienced technician/professional from the business community. This course may be repeated. This course satisfies the computer proficiency requirement.

CS 2623 Server-Side Programming

Prerequisites: MATH 0313 or adequate math placement, CS 1143 and CS 2413 or by evaluation. § Criteria for evaluation is in division office.

3 Credits Students will create interactive and dynamic web applications using server-side programming. A combination of current scripting/programming languages and web page authoring software will be used for topics such as maintaining state, processing data from the user, creating cookies, and interacting with databases. This course satisfies the computer proficiency requirement.

CS 2703 Introduction to Cyber/Information Security

Prerequisites: ENGL 0203, adequate placement score, or by meeting determined placement measures; MATH 0103 or adequate math placement.

3 Credits Students will examine the field of information security. This course presents the managerial and technical aspects of information security and addresses knowledge areas of the CISSP (Certified Information Systems Security Professional) certification. Information security is discussed within a real-world context, by including examples of issues faced by today's professionals. This course provides numerous opportunities for hands-on work. This course satisfies the computer proficiency requirement.

CS 2713 Principles of Information Security

Prerequisites: ENGL 0203, adequate placement score, or by meeting determined placement measures; MATH 0203 or adequate math placement; CS 1353

3 Credits Students will complete a comprehensive overview of network security, with an introduction to a variety of security problems faced by the computing industry. This course is mapped to the CompTIA Security+ Certification Exam. The course covers topics in general security concepts, communication security, infrastructure security, cryptography basics, and operational/organizational security. This course satisfies the computer proficiency requirement.

CS 2723 Secure Electronic Commerce

Prerequisites: MATH 0203 or adequate math placement; CS 1103

3 Credits Students will learn the fundamentals of secure electronic commerce technology, models and issues. This course includes principles and hands-on labs for secure electronic commerce. These include securing web sites and web applications, maintaining PCI DSS Compliance for E-commerce websites, performing web site vulnerability and security assessments, securing mobile communications, and securing personal and business communications. Legal and national policy issues related to secure electronic commerce are included. This course satisfies the computer proficiency requirement.

CS 2743 Enterprise Security Management

Prerequisites: CS 1353

3 Credits Students will learn the managerial aspects of computer security and risk management for enterprises. Topics include accreditation, procurement, extension and operation principles for secure enterprise information systems. Additional topics are security policy and plan development, contingency, continuity and disaster recovery planning, and incident handling and response. This course satisfies the computer proficiency requirement.

CS 2753 Information System Assurance

Prerequisites: MATH 0203 or adequate math placement, (CS 2703 or CS 2713) and (CS 2723 or CS 2743).

3 Credits Students will learn design and analysis methods for high assurance information systems. Topics covered will consist of safety, reliability, security, and specification of mission-critical system properties. Software and hardware validation, as well as verification and certification are also included. This course satisfies the computer proficiency requirement.

CS 2763 Network Security

Prerequisites: CS 1353

3 Credits Students will learn topics related to network vulnerabilities and defense. Topics include network and computer attacks, ethical hacking, penetrating testing, desktop and server vulnerabilities, securing embedded systems, web server security, wireless security, cryptography, and network protection systems. This course satisfies the computer proficiency requirement.

CS 2773 Secure System Administration and Certification

Prerequisites: MATH 0203 or adequate math placement, (CS 2703 or CS 2713) and (CS 2723 or CS 2743).

3 Credits Students will learn provisioning, procurement and installation of network, hardware and software systems for mission critical enterprises. System configuration and maintenance, incident handling and response, system certification, testing and validation are also covered. This course satisfies the computer proficiency requirement.

CS 2783 Cyber Forensics

Prerequisites: MATH 0203 or adequate math placement, CS 1353 and (CS 2713 or CS 2723 or CS 2743 or CS 2763)

3 Credits Student will learn the procedures for the identification, preservation and extraction of electronic evidence. Topics include auditing and investigation of network and host intrusions, and forensic tools and resources for systems administrators and information system security officers. This course satisfies the computer proficiency requirement.

Computer-Aided Technology

CAT 1000 Special Topics

Prerequisites: Math 0103 or adequate math placement; ENGL 0203, adequate placement score, or by meeting determined placement measures

VARIABLE 1-6 Credits The student will demonstrate specified competencies in subject areas not covered in other computer-aided design and design courses, but which are beneficial in providing a better understanding of drafting and design. Enrollment may be repeated with a change of topic. This course satisfies the computer proficiency requirement.

CAT 1043 Engineering Principles

Prerequisites: Math 0103 or adequate math placement; ENGL 0203, adequate placement score, or by meeting determined placement measures

3 Credits The student will use computational techniques and computer-aided drawing to create, analyze and graphically represent solutions to architectural and engineering problems, reflecting national, international and professional norms and standards. The student will be able to describe and demonstrate familiarity with the functions and responsibilities of research, manufacturing, construction and quality assurance involved in the solutions of a variety of engineering and architectural problems. This course satisfies the computer proficiency requirement.

CAT 1053 Manufacturing Materials and Processes

Prerequisites: CAT 1043 or by evaluation. § Criteria for evaluation is in division office.

3 Credits Students will learn basic concepts of the properties, behaviors and proper application of materials used in manufacturing and construction. The student will discuss and demonstrate various manufacturing, fabrication, assembly, handling and finishing processes. This course satisfies the computer proficiency requirement.

CAT 1113 Unmanned Vehicle Systems

Prerequisites: Math 0103 or adequate math placement; ENGL 0203, adequate placement score, or by meeting determined placement measure

3 Credits Students will be introduced to the history, missions, capabilities, types, configurations, subsystems, and the disciplines needed for UVS development and operation.

CAT 1123 UVS Operations

Prerequisites: CAT 1113

3 Credits Students will demonstrate the proper way to operate Unmanned Vehicle Systems. This includes pre-mission check list, mission planning and logging, safety/liability consideration and emergency procedures. Students will be working in the field and in the classroom conducting simulated and real life missions.

CAT 1133 Airspace and Regulations

Prerequisites: Math 0203 or adequate math placement; ENGL 0203, adequate placement score, or by meeting determined placement measures

3 Credits The course will examine the components and objectives of the National Airspace System. Emphasis will be placed on regulations pertaining to UAS flight operations.

CAT 1214 Computer Aided Design (CAD)

Prerequisites: Math 0103 or adequate math placement; ENGL 0203, adequate placement score, or by meeting determined placement measures

4 Credits The student will learn and demonstrate the proper use of computer-aided design software as a design tool in fields such as Engineering, Architectural and Multimedia. Emphasis will be on computer-aided design fundamentals such as creating, editing and printing of 2D computer-aided design documents. The student will demonstrate his or her understanding of the structure, use and development of computer-aided design documents by correctly creating, using and storing computer-aided design documents. This course satisfies the computer proficiency requirement.

CAT 1253 CAD 3D Parametric Modeling

Prerequisites: Math 0203 or adequate math placement; ENGL 0203, adequate placement score, or by meeting determined placement measures

3 Credits This course is an introduction to 3D parametric modeling techniques and concepts. The student will create 3D models and assemblies from 2D sketches using parametric dimensioning and constraints. This course satisfies the computer proficiency requirement.

CAT 1313 Introduction to Geographic Information System (GIS)

Prerequisites: Math 0103 or adequate math placement; ENGL 0203, adequate placement score, or by meeting determined placement measures

3 Credits Students will learn fundamental concepts in Geographic Information System (GIS). The student will be introduced to introductory content on typical business and technical applications, data, software, and techniques used to accomplish GIS projects. Students receive hands-on experience with global positioning system (GPS) hardware and ArcGIS software. This course satisfies the computer proficiency requirement.

CAT 1323 Introduction to Spatial Technology

Prerequisites: Math 0103 or adequate math placement; ENGL 0203, adequate placement score, or by meeting determined placement measures

3 Credits The course focuses on technologies being used to locate, inventory and analyze locations, Geographic Information Systems, Global Positioning Systems, telemetry and photogrammetry and a brief introduction to Satellite-Based Remote Sensing.

CAT 1413 CAD Hardware and Software

Prerequisites: Math 0103 or adequate math placement; ENGL 0203, adequate placement score, or by meeting determined placement measures

3 Credits The student will demonstrate his or her ability to understand the purposes and advantages of using networks, the Internet and operating systems in computer-aided design. The student will be introduced to computer-aided design hardware, software, networks, and operating systems as an integral part of computer-aided design productivity. This course satisfies the computer proficiency requirement.

CAT 1513 Digital Imaging

Prerequisites: CS 1103 or CAT 1413 or by evaluation. § Criteria for evaluation is in division office.

3 Credits Students will develop both technical skills and creative techniques in a project-based learning environment. Many aspects of digital imaging will be applied including digital cameras and scanners, image retouching and manipulation, selection, layering, color correction, channels, paths, and filters. This course satisfies the computer proficiency requirement.

CAT 2000 Special Topics

Prerequisites: MATH 0103 or adequate math placement; ENGL 0203, adequate placement score, or by meeting determined placement measures

VARIABLE 1-6 Credits The student will demonstrate competencies with subjects not covered in other program courses. Each course will cover a specific topic and may be repeated with a change in content.

CAT 2013 Geometric Dimensioning and Tolerancing

Prerequisites: CAT 2540 (minimum of three credit hours)

3 Credits This course will introduce the student to the concepts of geometric dimensioning and tolerancing. The coursework will focus on recognition and understanding of geometric tolerancing terms and symbols. The student will interpret and apply the basic geometric tolerancing techniques.

CAT 2023 Design Mechanics

Prerequisites: Math 1613, 15 credit hours of CAT, PHYS 1114 or PHYS 1314

3 Credits The student will analyze coplanar force systems and calculate moments of inertia, centroids, tensile stresses. The student will demonstrate an understanding of the relationship between stress and strain, basic properties of materials and shear, bending and moment diagrams. This course is designed as an applied static's and strength of materials course for technicians utilizing algebra, trigonometry and analytic geometry. This course satisfies the computer proficiency requirement.

CAT 2113 CAD Management and Standards

Prerequisites: CAT 1253 or by evaluation. § Criteria for evaluation is in division office.

3 Credits The student will demonstrate the ability to manage and maintain a Computer-Aided Design System. The student will demonstrate his or her ability to handle problems in the Computer-Aided Design office related to organization, finances, communication, hardware, software, training and limited resources by providing written, structured solutions to Computer-Aided Design office problems. The student will be able to develop, apply and maintain a Computer-Aided Design standards manual defining the operational parameters necessary for a profitable and efficient Computer-Aided Design operation. Emphasis will be on organizing data input, drawing output, data exchange and networking. This course satisfies the computer proficiency requirement.

CAT 2123 Digital Fabrication

Prerequisites: MATH 0203 or adequate math placement; CAT 1214 or CAT 1253 or CAT 2543.

3 Credits The course is an in-depth exploration of the world of digital fabrication. Students will create projects by utilizing fabrication equipment such as 3D scanning, 3D Printers, Computer Numerical Control (CNC) machines and metrology tools. This course satisfies the computer proficiency requirement.

CAT 2163 CAD Automation

Prerequisites: CAT 1214; MATH 0203 or adequate math placement.

3 Credits The student will demonstrate the ability to manage and maintain a Computer-Aided Design System by customization, programming and automation. This course satisfies the computer proficiency requirement.

CAT 2313 Introduction to Spatial Analysis

Prerequisites: Math 0203 or adequate math placement, CAT 1313 or by evaluation. § Criteria for evaluation is in division office.

3 Credits This course is designed to expose students to various components of spatial analysis. Emphasis is placed on modeling and decision making with the use of spatial data. Upon completion, students will be able to utilize common GIS techniques to solve complex spatial problems. This course satisfies the computer proficiency requirement.

CAT 2334 Plane Surveying

Prerequisites: MATH 1613 or by evaluation. § Criteria for evaluation is in division office.

4 Credits The student will be introduced to maps, survey measurement techniques and computations related to distances, elevations and traverse surveys. The student will study topics related to topographical, construction and boundary surveying. Field laboratory work is required. This course satisfies the computer proficiency requirement.

CAT 2540 Applications in CAD

Prerequisites: CAT 1043 and CAT 1214 or by evaluation. § Criteria for evaluation is in division office.

VARIABLE 1 The student will use a Computer-Aided Design System to produce solutions to typical problems encountered in industry. The student will demonstrate his or her ability to understand the principles of design, visualization, projection, analysis and product quality by producing a set of working drawings and presenting their work to a group of their peers. This course may be repeated with a different content. This course satisfies the computer proficiency requirement.

CAT 2703 Practicum

Prerequisites: 12 hours of CAT or by evaluation. § Criteria for evaluation is in division office.

3 Credits The Practicum is a course designed to monitor students in an on-site job location. The student will report to and receive supervision by the employer during the course of the semester. The student will demonstrate the ability to work effectively in a commercial setting, toward satisfying objectives prescribed by the instructor and the participating employer. Work objectives will be consistent with meaningful career learning experiences. This course satisfies the computer proficiency requirement.

CAT 2924 Design Project

Prerequisites: 15 hours of CAT credits

4 Credits In this capstone course of the Computer-Aided Technology Program the student will demonstrate the collected knowledge, skills and techniques acquired in the program courses by creating and presenting a representative project to a panel of students, instructors and representatives from industry. The project must be an original design of the student. The project must reflect the standards relative to the project's nature and the program emphasis. The student must assemble and create components, choose the proper presentation medium, and present the project in a professional manner. This course satisfies the computer proficiency requirement.

Digital Cinema Production

DCP 1000 Special Topics in Film Technology

Prerequisites: None

Variable 1-3 Credits The student will demonstrate specified competencies in subjects not included in other film and video production courses but which will benefit students wanting additional training. Each course will cover a specific topic and may be repeated with a change in content.

DCP 1133 Production Design

Prerequisites: None

3 Credits The student will demonstrate an understanding of location design, exterior and interior art direction and construction, stage sets, props, signage, costume and set decoration, makeup, and hair dressing.

DCP 1214 Cinematography I

Prerequisites: None

4 Credits Students will be introduced to the equipment and technical aspects used for films and television. They will demonstrate an understanding of terms and procedures in selecting equipment for specific scenes. They will demonstrate a basic understanding of how to use lights, sound and camera devices. They will demonstrate a technical understanding of the workflow utilized in preproduction, production and post production process of motion pictures. Laboratory experience is a required component of this course.

DCP 1713 Screenwriting

Prerequisites: None

3 Credits Students will be given basic instruction in the skills of writing and analyzing screenplays. Students will produce examples of the type of writing on which the instruction is focused. This course will include the analytical breakdown of screenplay elements through script analysis of feature-length screenplays and short-form screenplays. Students will synthesize their knowledge and skills learned in class, and problem-solve by writing "coverage" of student class projects--and by writing multiple short-form screenplays, culminating in a screenplay for a Capstone Project. They will also create a step-outline for a feature-length motion picture.

DCP 2000 Special Topics in Film Technology

Prerequisites: 6 hours of Digital Cinema Production courses

Variable 1-3 Credits The student will demonstrate specified competencies in subjects not included in other film and video production courses but which will benefit students wanting advanced training. Each course will cover a specific topic and may be repeated with a change in content.

DCP 2123 Film Production and Business

Prerequisites: None

3 Credits Students will study the film-making process from concept to completion with special emphasis on the relationship between key staff members such as the producers, editors, directors, and cinematographers. They will demonstrate a basic understanding of film production technology and terminology. They will also analyze publicity, marketing techniques and materials, distribution plans, contracts, labor relations, business plans, copyright, chain of title, and negotiating with management and representation. As part of this course students will develop an entire plan for the production of a film which may become their Capstone project. The plan will include the selection of a script, a detailed schedule, budget, and possible contracts for staff and talent.

DCP 2214 Cinematography II

Prerequisites: DCP 1214 and DCP 2323 or by evaluation. § Criteria for evaluation is in division office.

4 Credits Students will be introduced to the composition of film and television. They will demonstrate an understanding of picture and sound techniques to produce a meaningful and cohesive visual and aural story. They will demonstrate a basic understanding of utilizing lights, sound and camera locations and movements relative to the visual and aural story. Laboratory experience is a required component of this course.

DCP 2253 Film Sound

Prerequisites: DCP 1214

3 Credits Students will demonstrate the use of microphones, microphone placement, sound enhancements, volume, and the recording techniques used on location and in a studio. They will produce a full sound mix, including dialogue, score, source music, sound effects, and a variety of digital technologies.

DCP 2263 American Cinema

Prerequisites: ENGL 1113

3 Credits The focus in this course will be on these film topics: history and development, the studio system, economic structure, technical and critical vocabulary, style, the star, genres, themes, and audience. Instructional films and readings will enable the student to understand each of these topics; furthermore, the student will view several classic and contemporary American films to exemplify and clarify cinematic techniques and concepts. The student will become able to think and write critically about film and its role in American culture.

DCP 2273 Documentary Filmmaking

Prerequisites: DCP 1214 and DCP 2323

3 Credits Students will analyze the techniques and resources for the successful development and completion of filmed documentary productions. They will examine the duties of the documentary filmmaker from the perspective of the various craft categories. Students will synthesize their knowledge and skills learned in class, and problem-solve by producing examples of the type of filmmaking on which the instruction is focused.

DCP 2314 Cinematography III

Prerequisites: DCP 2214

4 Credits Students will be introduced to the special effects technology of match movement. They will demonstrate an understanding of the knowledge and skills to track a camera's movement in three-dimensional space so a virtual camera can be reproduced by computer software. They will demonstrate an understanding of three-dimensional match moving tools to extrapolate three-dimensional information from two-dimensional photography. Laboratory experience is a required component of this course.

DCP 2323 Film Editing and Digital Effects I

Prerequisites: None

3 Credits Students will learn the digital environment of the non-linear AVID editing system, mastering the basics of multiple video and audio tracks, scenes assembly, time line structure and maintenance. Basic transitions such as dissolves, fades, wipes, and others will be introduced. Students will learn the process of commercial digital film editing and become familiar with story line and plot development through basic post-production techniques of picture and sound juxtaposition. Students will also be introduced to the mechanics and methods of digital effects. They will demonstrate a proficiency in the manipulation of single images, resulting in digitally enhanced composite shots and scenes. This course satisfies the computer proficiency requirement.

DCP 2423 Film Editing and Digital Effects II

Prerequisites: DCP 2323

3 Credits Students will master the visual and aural forces that make the film an expressive means of communication utilizing the digital medium of the intermediate level AVID non-linear editing system. Students will demonstrate proficiency in construction of film sequences, interrelationships of the various film elements, editorial theory and practices that affect the overall aesthetics of recorded storytelling. They will additionally study the arena of digital effects and various non-linear after-market effects palettes. This course satisfies the computer proficiency requirement.

DCP 2453 Film Sound Editing

Prerequisites: DCP 2253

3 Credits Students will master the aural forces that make film an expressive means of communication utilizing the digital medium of the intermediate ProTools non-linear sound editing system. Students will demonstrate proficiency in construction of sound sequences, interrelationships of the various sound track elements, sound design, foley and editorial theory that affect the overall aural aesthetics of recorded music and effects in film storytelling.

DCP 2613 Film Or Video Internship

Prerequisites: 6 hours of Digital Cinema Production courses

3 Credits Students will work on the production of student films, or they will be placed in a professional setting that will require them to use their workplace skills through a supervised practical experience in support of film or video projects. The course may be repeated to a maximum of 6 credit hours with the consent of the instructor.

DCP 2623 Directing

Prerequisites: DCP 1214

3 Credits Students will analyze the techniques and resources used in modern film directing. They will learn the director's responsibilities in script development, pre-production, production, and post-production. They will learn how a director assesses and integrates the individual contributions of the various film crafts into a production. They will learn how to work with actors in casting sessions and on the set. They will be given practical, hands-on experience in directing by the completion of directing assignments and projects. Students will be divided into teams to work on directing assignments outside of class for later presentation in class, as well as presentations of edited assignments. Each team will be responsible for "casting" the acting talent required for those assignments. Some additional time outside of class will be required for the editing of projects.

DCP 2713 Capstone Project

Prerequisites: Students are required to complete all required major DCP courses before taking DCP 2713. Prerequisite: DCP 2273 or DCP 1713

3 Credits Individually or in groups, students will produce a short 10 to 20 minute, completely edited, finished film, demonstrating their mastery of the various film craft categories and the entire film making process. In some cases, students may work on a professional production in a capacity which demonstrates the skills they have learned.

Digital Media Design

DMD Digital Media Design

Prerequisites:

3 Credits Select any DMD course

DMD 1000 Special Topics in Digital Media Design

Prerequisites: NONE

1-3 Credits Students will develop skills and demonstrate competencies in topics not covered in other Digital Media Design courses. A specific topic is designated for each offering. This course may be repeated with a change in subject matter.

DMD 1013 Creativity and Design

Prerequisites: ENGL 0203, adequate placement score, or by meeting determined placement measures

3 Credits This course combines theory and problem-solving assignments to introduce students to the main concepts of creativity and design. Throughout this course students will examine the principles of design and critical thinking skills that lead to creative solutions. Within this collaborative learning environment students will complete hands on activities that stimulate innovation and promote life long learning. This course satisfies the computer proficiency requirement.

DMD 1023 Introduction to Graphic Design

Prerequisites: DMD 1053

3 Credits The student will be introduced to the principles of design, color, typography, and the design process. Student proficiency will be demonstrated by the successful completion of projects.

DMD 1033 Principles of Animation

Prerequisites: ENGL 0203, adequate placement score, or by meeting determined placement measures

3 Credits This course provides a historical and critical approach to animation from early black-and-white cartoons to modern 2D and 3D productions. Students will critically analyze processes and techniques involved in the construction of traditional and computer based animation sequences. This course satisfies the computer proficiency requirement.

DMD 1043 3D I

Prerequisites: ENGL 0203, adequate placement score, or by meeting determined placement measures

3 Credits The student aspiring to become an artist, designer or other professional using 3D computer graphics will be able to create, generate or integrate 3D computer graphics. The student will demonstrate a fundamental understanding of how the computer can be used to create 3D computer renderings. These renderings could be related to either technical design, fine art or applied art. Emphasis will be on using application software (primarily 3D modeling and rendering programs) in the development of modeling logos, 3D scenes, textures, lighting, atmosphere effects, and basic animation. This course satisfies the computer proficiency requirement.

DMD 1053 Electronic Publishing: Indesign I

Prerequisites: ENGL 0203, adequate placement score, or by meeting determined placement measures

3 Credits Students will demonstrate proficiency in using the Macintosh computer in the production of various types of printed material. In addition, they will demonstrate skills in specifying typography, importing photos and artwork into documents, the application of design principles, and preparing documents for the commercial printing process. This course satisfies the computer proficiency requirement.

DMD 1063 Evolution of Video Game Design Technology

Prerequisites: ENGL 0203, adequate placement score, or by meeting determined placement measures

3 Credits This course provides a historical and critical approach to the evolution of computer and video game design from its beginnings to the present. The student will learn the history of the industry and its continuing trends. Through analysis and example the student will learn why people play games, the game interface, design cycles, game genres, game-related technology and the possible futures of the industry. This course satisfies the computer proficiency requirement.

DMD 1133 Introduction to Macintosh

Prerequisites: ENGL 0203, adequate placement score, or by meeting determined placement measures

3 Credits The student will demonstrate a working knowledge of creating documents and folders and filing them in the current operating system, networking, accessing the Internet, and producing basic documents using several graphic arts software programs. This course satisfies the computer proficiency requirement.

DMD 1153 Digital Photography

Prerequisites: ENGL 0203, adequate placement score, or by meeting determined placement measures

3 Credits The student will demonstrate proficiency in using digital cameras and will produce color and black and white images which demonstrate a knowledge of basic principles of composition. Students will also demonstrate the ability to use the software program Adobe Photoshop to enhance, retouch, resize, format and store their digital images for use in printing and on the web. This course satisfies the computer proficiency requirement.

DMD 1183 Computer Drawing: Illustrator

Prerequisites: ENGL 0203, adequate placement score, or by meeting determined placement measures

3 Credits Students will demonstrate knowledge of vector illustration techniques using Adobe Illustrator software. Students will also create and edit graphic objects and type, select various menu commands, and use keyboard shortcuts. This course satisfies the computer proficiency requirement.

DMD 1223 3D II

Prerequisites: DMD 1043 or by evaluation

3 Credits This course will introduce students to the concepts and tools used to create 3D games. Using current 3D applications, students will build, texture, and sculpt models for use in movies and games that reflect the design mechanics of historical games. This course satisfies the computer proficiency requirement.

DMD 1233 2D Computer Animation

Prerequisites: DMD 1033

3 Credits In this class students will apply basic animation principles to produce an animated sequence using industry standard 2D animation computer software. Emphasis will be placed on timing, performance and creativity of the animated sequence. This course satisfies the computer proficiency requirement.

DMD 1513 Graphic Design

Prerequisites: DMD 1053; DMD 1023

3 Credits The student will apply design principles, color, typography, problem solving, and production skills to create effective designs for print and electronic media. Student proficiency will be demonstrated by the successful completion of projects.

DMD 2000 Internship

Prerequisites: ENGL 0203, adequate placement score, or by meeting determined placement measures; By Evaluation

1-9 Credits The student will work in a professional setting with qualified professionals in either animation, game design, graphic design or photography. The student will produce professional quality materials for print or electronic media. This course may be repeated to a maximum of nine credit hours with the permission of the instructor. This course satisfies the computer proficiency requirement.

DMD 2053 Electronic Publishing: Indesign II

Prerequisites: DMD 1053

3 Credits The student will demonstrate the proficiency using advanced functions and commands of electronic desktop publishing. This will include libraries, master pages, color separations, prepress document preparation, working with graphic files, and templates. This course satisfies the computer proficiency requirement.

DMD 2100 Advanced Special Topics

Prerequisites: Any 1000-level DMD course

3 Credits Students will demonstrate competencies in advanced topics not covered in other Digital Media Design courses. A specific topic is designated for each offering. This course may be repeated with a change of subject matter.

DMD 2143 Digital Video Editing

Prerequisites: ENGL 0203, adequate placement score, or by meeting determined placement measures

3 Credits This course will focus on projects in video editing and motion graphics. Students will develop both technical and creative skills in non-linear editing, compositing, special effects, camera movements and cinematic points of view, and titling and motion graphics. This course satisfies the computer proficiency requirement.

DMD 2153 Digital Photography II

Prerequisites: DMD 1153

3 Credits The student will demonstrate knowledge of DSLR camera operations, exposure, exposure controls, lenses, depth of field, shutter speeds, existing lighting, and basic lighting techniques using studio lighting and electronic flash. Student proficiency will be indicated by successful completion of projects and the development of a one-person exhibit or portfolio.

DMD 2163 Photojournalism

Prerequisites: DMD 2153

3 Credits The student will demonstrate the skills used in publication photography. These skills include knowledge of equipment, special lighting, compositional techniques, and publication requirements used in photographing news events and photo essays. Student proficiency will be indicated by successful completion of projects and the development of a one-person exhibit or portfolio.

DMD 2223 3D III

Prerequisites: DMD 1223 or by evaluation

3 Credits This course will introduce students to the concepts and tools used to create levels for games. The course will incorporate level design, environment theory, concepts of linear and non-linear game balance, low and high polygon modeling, play testing and storytelling. Using user-friendly toolsets based on current industry title game engines, students will build and test "modifications" (MOD) levels that reflect design concepts. This course satisfies the computer proficiency requirement.

DMD 2253 Advertising Photography

Prerequisites: DMD 2153

3 Credits The student will demonstrate the skills used in catalog and advertising photography. These skills include knowledge of equipment, special lighting, and compositional techniques used in the studio and on location. Student proficiency will be indicated by successful completion of projects and the development of a one-person exhibit or portfolio.

DMD 2323 Publication Design

Prerequisites: DMD 1023

3 Credits The student will design newspaper and magazine elements that meet industry standards for print and electronic media. Student will demonstrate understanding of elements of a publication, publication layout, design principles, color, typography, problem solving, and production skills through the successful completion of projects. This course satisfies the computer proficiency requirement.

DMD 2353 Applied Graphic Design

Prerequisites: DMD 1513

3 Credits The student will apply skills learned in previous classes to produce real projects for the College or community. Students will design and produce a variety of production pieces. This course satisfies the computer proficiency requirement.

DMD 2363 Portrait Photography

Prerequisites: DMD 2153

3 Credits The student will demonstrate the skills required to photograph people in the studio and on location. These skills include knowledge of equipment, special lighting, and posing techniques. Student proficiency will be indicated by successful completion of projects and the development of a one-person exhibit or portfolio.

DMD 2633 3D Animation and Special Effects

Prerequisites: DMD 2533

3 Credits The student will use professional techniques to create photo-realistic renderings, advanced physical-based and character animations, interactive media and Web development, 3D gaming and 3D virtual environments. This course will enhance the abilities of artists, designers and other professionals using 3D computer-created, generated, or integrated graphics. Emphasis will be on the development of professional techniques in the area of 3D computer graphics. This course satisfies the computer proficiency requirement.

DMD 2733 3D Character Design and Animation

Prerequisites: DMD 2533

3 Credits This is a support-oriented course in which the student will learn and use skills specific to creating 3D character models and character animation in the fields of television, movies, advertising, multimedia, and gaming. Emphasis of the course will be on advanced modeling techniques in the creation of a seamless 3D character design of head, body, clothing, animation concepts in facial expression, internal skeleton control, morphing, dialogue and lip sync, character posing, and locomotion. Discussion topics will include traditional animation techniques, body language, vocabulary, and character physics. This course will enhance the abilities of artists, designers, and other professionals using 3D computer created, generated, or integrated graphics. This course satisfies the computer proficiency requirement.

DMD 2773 Image Editing: Photoshop I

Prerequisites: ENGL 0203, adequate placement score, or by meeting determined placement measures

3 Credits The student will demonstrate knowledge of the tools and functions of Photoshop software program. The student will complete projects which indicate an understanding of image retouching and manipulation, color correction, image sharpening, RGB color, CYMK color, separations, channels, paths, and filters. This course satisfies the computer proficiency requirement.

DMD 2783 Image Editing: Photoshop II

Prerequisites: DMD 2773

3 Credits The student will demonstrate knowledge of more advanced functions of the Photoshop software program. Student proficiency will be demonstrated by successfully completing projects which require skills in advanced techniques in selection, layering, color correction, and image manipulation. This course satisfies the computer proficiency requirement.

DMD 2803 Portfolio Preparation and Presentation

Prerequisites: DMD 1013; DMD 1053; DMD 1183; AND DMD 2783

3 Credits The student will prepare a professional portfolio for presentation and evaluation. The portfolio will include a resume, matted projects and other pieces that demonstrate the student's ability to apply skills and techniques acquired in the program.

Economics

ECON 1013 Introduction to Economics

Prerequisites: MATH 0203 or adequate math placement and ENGL 0203 or adequate placement score, or by meeting determined measures.

3 Credits This course is an introduction to the fundamental framework economists use to analyze problems. Students will explore the principles by which decisions are made by consumers, businesses and the government. Upon completion of this course will be able to relate the principles of economics to solve everyday problems. Topics covered include scarcity, choice and opportunity cost; demand, supply, market efficiency and structure; consumer utility theory, inflation, unemployment and the effects of government policy and intervention.

ECON 1113 Economic Development of The United States

Prerequisites: MATH 0103 or adequate math placement and ENGL 0203 or adequate placement score, or by meeting determined placement measures.

3 Credits The student will examine and discuss the organization and evolution of the economic system of the United States as affected by agriculture, industry and commerce.

ECON 2023 Statistics for Business and Economics

Prerequisites: MATH 1743 and ENGL 0203 or adequate placement score, or by meeting determined placement measures.

3 Credits Basic statistics course for undergraduate business majors. Introductory statistical methods are presented employing statistical computer software and applications to typical business and economic problems. Topics include descriptive statistics, probability concepts, probability distribution, estimation, hypothesis testing, and introduction to econometric/regression analysis, and correlation.

ECON 2123 Principles of Microeconomics

Prerequisites: MATH 0313 or adequate math placement and ENGL 0203 or adequate placement score, or by meeting determined placement measures.

3 Credits The student will apply microeconomic theories in analyzing concepts by which business maximizes profit, consumers maximize satisfaction, government allocates goods and services, and international trade affects the domestic economy.

ECON 2143 Principles of Macroeconomics

Prerequisites: ECON 2123 or by evaluation

3 Credits This course is a continuation of the Principles of Economics involving the production, consumption and distribution of wealth in a market economy, with major emphasis macroeconomics theory, particularly the general price level, output and income, and interrelations among sectors of the economy, determinants of aggregate demand and aggregate supply, as well as monetary and fiscal policy tools that can be used to achieve particular policy objectives. The basics of international finance will be reviewed.

ECON 2203 Principles of International Economics

Prerequisites: MATH 0313 or adequate math placement and ENGL 0203 or adequate placement score, or by meeting determined placement measures.

3 Credits This course is an introduction to the theory of international trade, commercial policy, preferential trading arrangements, and topics on the balance of payments and the international adjustment mechanism.

ECON 2303 Money and Banking

Prerequisites: ECON 2123 or by evaluation

3 Credits The student will discuss problems of economic stabilization, types of spending, the role of gold, limitations of central bank control, government fiscal policy, balance of payments, and foreign exchange, showing their repercussions on the banking industry in affecting yield curves and the structuring of portfolios. (This course is generally offered in the spring semester only.)

Electives

AUTO FA Faculty Approved Automotive Elective(S)

Prerequisites: None

4 Credits Faculty approved Automotive elective

BIO AH SUPP ELEC Pre-Bacc Allied Health (Biology) Support Electives

Prerequisites:

9 Credits 9 credit hours of support electives from the following: AHP 1013, ACCT 2113, BIO 1023, BIO 2114, BIO 2203, BIO 2215, BIO 2255, BIO 2404, CHEM 2114, CHEM 2111, COM 2213, MATH 1613, MATH 1743, MATH 2013, PHYS 1114, PHYS 1214, or any 5 credit hour GRMN, FREN, or SPAN course.

BIO MAJ ELEC Biological Science Major Elective

Prerequisites:

3 Credits Biological Science major elective

BIO PB SUPP ELEC Pre-Bacc (Biology) Support Electives

Prerequisites:

9 Credits 9 credit hours of support electives from the following: AHP 1013, ACCT 2113, BIO 1134, BIO 2114, BIO 2203, BIO 2215, BIO 2255, BIO 2404, CHEM 2114, CHEM 2111, CHEM 1215, COM 2213, CS 1103, MATH 1613, MATH 1743, PHYS 1114, PHYS 1214, PSY 2403, or any 5 credit hour GRMN, FREN, or SPAN course.

BIO SUPP ELEC Biology Support Electives

Prerequisites:

10 Credits 10 credit hours of support electives from the following: AHP 1013, ACCT 2113, BIO 1023, BIO 2203, BIO 2215, BIO 2404, CHEM 2114, CHEM 2111, COM 2213, CS 1103, MATH 1613, MATH 1743, MATH 2013, PHYS 1214, PSY 2403, or any 5 credit hour GRMN, FREN, or SPAN course.

BUS MAJ ELEC Business (general option) Major Electives

Prerequisites:

9 Credits 9 credit hours of Faculty Pre-Approved Major Electives: ACCT 2003, ACCT 2123, ACCT 2403, BUS 1113, BUS 1713, BUS 2313, BF 1303, BUS 1323, BUS 2003, BUS 2073, ECON 2023, FIN 1013, FIN 2023, FIN 2503, MGMT 1533, MGMT 2003, MGMT 2013, MGMT 2023, MGMT 2053, MATH 2013, MKT 2043, BUS 2493 or any other ACCT, BUS, ECON, FIN, MGMT, MKT course.

BUS SUPP ELEC Business (general option) Support Electives

Prerequisites:

18 Credits 18 credit hours of Faculty Pre-Approved Electives: ACCT 2003, ACCT 2123, ACCT 2403, BUS 1113, BUS 1713, BUS 2313, BF 1303, BUS 1323, BUS 1083, BUS 2003, BUS 2073, CS 1103, ECON 2023, FIN 1013, FIN 2023, FIN 2503, MGMT 1533, MGMT 2003, MGMT 2013, MGMT 2023, MGMT 2053, MATH 2013, MKT 2043, BUS 2493, SPAN 1115, SPAN 1013, or any other ACCT, BUS, ECON, FIN, MGMT, MKT course.

BUS VSM GE Business (Vehicle Service) Gen Ed Elective

Prerequisites: None

3 Credits Student should select one course from this list: ECON 1013 or ECON 2143 or FIN 1013.

BUS VSM SUPP Business (Vehicle Service) Support Electives

Prerequisites: None

9 Credits Select 9 hours from the following faculty approved support electives: (C) AT 1153, (C) AT 1733 (C) AT 1753, or (C) AT 1773).

CAT GEN COMM OSRHE Approved Gen Ed Communications or English Course

Prerequisites:

3 Credits Students should select one 3 credit course: ENG 1213, ENG 1233, COM 1123, or COM 2213.

CAT UAS SUPP ELEC Unmanned Aerial Systems Support Electives

Prerequisites:

9 Credits Nine credit hours chosen from the following approved support courses: Any CAT, CS, DCP, or ENGR Course or choose from any of the following DMD courses: DMD-1153, DMD-2143, DMD-2153, DMD-2163, DMD-2253, DMD-2533, DMD-2633, DMD-2733, DMD-2783, or other courses may be approved by the program faculty advisor.

CH PD SUPP ELEC Pre-Dentistry Support Electives

Prerequisites:

5-8 Credits Five to eight credit hours chosen from the following approved support courses: BIO 1134, BIO 2125, BIO 2215, BIO 2203, BIO 2234, BIO 2255, CHEM 2990, COM 2213, ENGL 1233, CS 1143, CS 2163, CS 2363, MATH 1533 (C), MATH 2013, MATH 2123, MATH 2314, MATH 2413, MATH 2104, MATH 2214, ECON 2123, ECON 2143, ANY ENGR, PHYS 1214, PHYS 2014, PHYS 2114, SOC 1113, or ENGL 2143.

CH PM SUPP ELEC Pre-Med Support Electives

Prerequisites:

5-8 Credits Five to eight credit hours chosen from the following approved support courses: BIO 1134, BIO 2125, BIO 2215, BIO 2203, BIO 2234, BIO 2255, CHEM 2990, COM 2213, CS 1143, CS 2163, CS 2363, ECON 2123, ECON 2143, ENGL 1233, ANY ENGR, MATH 2013, MATH 2123, MATH 2314, MATH 2413, MATH 1533 (C), MATH 2104, MATH 2214, PHYS 1214, PHYS 2014, PHYS 2114, or ENGL 2143.

CH PP SUPP ELEC Pre-Pharmacy Support Electives

Prerequisites:

5-8 Credits Five to eight credit hours chosen from the following approved support courses: BIO 1134, BIO 2125, BIO 2203, BIO 2215, BIO 2234, BIO 2255, CHEM 2990, COM 2213, CS 1143, CS 2163, CS 2363, ECON 2123, ECON 2143, ENGL 1233, Any ENGR, MATH 1533 (C), MATH 1613, MATH 2013, MATH 2104, MATH 2123, MATH 2214, MATH 2314, MATH 2413, PHYS 1214, PHYS 2014, PHYS 2114, SOC 1113, or ENGL 2143.

CH SUPP ELEC Chemistry Support Electives

Prerequisites:

5-8 Credits Five to eight credit hours chosen from the following approved support courses: BIO 1134, BIO 2125, BIO 2215, BIO 2203, BIO 2234, BIO 2255, CHEM 2990, COM 2213, CS 1143, CS 2163, CS 2363, ECON 2123, ECON 2143, ENGL 1233, ENGL 2143, any ENGR, MATH 2013, MATH 2123, MATH 2314, MATH 2413, PHYS 1114, PHYS 1214, PHYS 2014, or PHYS 2114.

CS Computer Science Elective

Prerequisites:

3 Credits Computer Science elective

DCP ELEC Digital Cinema Production Approved Elective

Prerequisites:

6-7 Credits Students may select any DCP course or HUM 2243, HUM 2143, HUM 2233, HUM 2253, HUM 2273, or HUM 2283.

ELEC Elective

Prerequisites:

3 Credits Elective

ENGL Approved Literature Elective

Prerequisites:

3 Credits Approved Literature elective

ENGL2 Approved Literature Elective (Part One of 6 Hour Survey)

Prerequisites:

3 Credits Approved Literature elective (part one of 6 hour survey)

ENGR MAJ ELEC Engineering Major Electives

Prerequisites:

6 Credits 6 hours of approved major electives selective from: (C) ENGR 1000; (C) ENGR 2103; (C) ENGR 2143; (C) ENGR 2200; (C) ENGR 2214; (C) ENGR 2303; (C) ENGR 2313; (C) ENGR 2333; (C) ENGR 2343; (C) ENGR 2523; (C) ENGR 2613; (C) ENGR 2623; or (C) ENGR 2713.

ENGR SUPP ELEC Engineering Support Electives

Prerequisites:

3-5 Credits 3-5 hours of approved support electives selected from: (C) GEOL 1114; (C) PHYS 2223; (C) MATH 2013; (C) MATH 2413; (C) CAT 1214; (C) CS 1143; (C) CS 2163; (C) CS 2363; (C) CHEM 1215; (C) CHEM 2114; (C) CHEM 2111; (C) CHEM 2124; (C) CHEM 2121; (C) ENGR 2103; (C) ENGR 2143; (C) ENGR 2214; (C) ENGR 2313; (C) ENGR 2333; (C) ENGR 2343; (C) ENGR 2523; (C) ENGR 2613; (C) ENGR 2623; or (C) ENGR 2713.

FA AT Faculty Approved Automotive Elective

Prerequisites: None

Faculty approved Automotive elective

FA BIO Faculty Approved Biological Science Elective

Prerequisites:

3 Credits Faculty approved Biological Science elective

FA CAD CERT SUP ELEC CAD Faculty Approved Support Electives

Prerequisites:

3 Credits Faculty approved electives: any 3 credits course with an ART, CAT, CS, ENGR or DMD prefix.

FA COM Faculty Approved Communications Elective

Prerequisites:

3 Credits Faculty approved Communications elective

FA ELEC Faculty Approved Elective

Prerequisites:

3 Credits Faculty approved elective

FA ENGL Faculty Approved Elective From Engl Or Com

Prerequisites:

3 Credits Faculty approved elective from ENGL or COM

FA ENGR Faculty Approved Engineering Elective

Prerequisites:

3 Credits Faculty approved Engineering elective

FA GEN Faculty Approved General Education Elective

Prerequisites:

3 Credits Faculty approved General Education elective

FA GIS CERT ELEC GIS Faculty Approved Support Electives

Prerequisites:

6 Credits Faculty approved electives: Any CAT, CS or ENGR Course. Also the following GEOL Courses: GEOL 1063, GEOL 1064, GEOL 1114 and other courses may be approved by the Program Faculty Advisor.

FA GIS SUPP ELEC GIS Faculty Approved Support Electives

Prerequisites:

12 Credits Faculty approved electives: Any CAT, CS or ENGR Course. Also the following GEOL Courses: GEOL 1063, GEOL 1064, GEOL 1114 and other courses may be approved by the Program Faculty Advisor.

FA LANG1 Faculty Approved Elementary Language 1

Prerequisites:

3 Credits Faculty approved elementary language 1

FA LANG2 Faculty Approved Elementary Language 2

Prerequisites:

3 Credits Faculty approved elementary language 2

FA LANGI Faculty Approved Intermediate Language

Prerequisites:

3 Credits Faculty approved intermediate language

FA MAJOR Faculty Approved Major Elective

Prerequisites:

3 Credits Faculty approved major elective

FA MATH Faculty Approved Mathematics Elective

Prerequisites:

3 Credits Faculty approved Mathematics elective

FA MATH1 Faculty Approved Mathematics That Meet Occc's Mathematics Proficiency Requirements

Prerequisites:

3 Credits Faculty approved Mathematics that meets OCCC's Mathematics proficiency requirement

FA PHYS Faculty Approved Physical Science Elective

Prerequisites:

3 Credits Faculty approved Physical Science elective

FA SCI Faculty Approved Science Elective

Prerequisites:

3 Credits Faculty approved Science elective

FA SUPPORT Faculty Approved Support Electives

Prerequisites:

3 Credits Faculty approved support electives

FA UVS SUPP ELEC UVS Faculty Approved Support Electives

Prerequisites:

9 Credits Faculty approved electives: Any CAT, CS, DCP or ENGR course or any of the following DMD courses: DMD-1153, DMD-2143, DMD-2153, DMD-2163, DMD-2253, DMD-2533, DMD-2633, DMD-2733, DMD-2783, and other courses may be approved by the Program Faculty.

FG ELEC Faculty Guided Elective

Prerequisites:

3 Credits Faculty guided elective

GCOM Any Gcom Course

Prerequisites:

3 Credits Any GCOM course

GEN ED Gen Ed Elective

Prerequisites:

3 Credits General Education elective

GEN ED MATH Gen Ed Math

Prerequisites:

3 Credits MATH 1483 Functions and Modeling, MATH 1503 Contemporary Math, MATH 1533 Pre-Calculus and Analytic Geometry, MATH 2013 Introduction to Statistics, PSY 2123 Behavioral Statistics, OR any course with a MATH prefix having MATH 1483 or MATH 1533 as a prerequisite

GEN ED SCI ELEC General Education Science Electives

Prerequisites:

8 Credits 8 hours of general education science chosen from the following: BIO 2125 Microbiology; BIO 1134 General Biology II (Majors) ; BIO 2215 General Zoology; CHEM 1215 General Chemistry II; PHYS 1114 College Physics I

HIST ELEC History Elective

Prerequisites:

3 Credits History elective

HIST SS ELEC History Social Science Electives

Prerequisites:

6 Credits 6 hours of Social Science General Education Elective chosen from: HIST-1000, HIST-1713, HIST-1723, HIST-2000, HIST-2013, HIST-2103, HIST-2203, HIST-2213, CD-2113, CD-2213, ECON-1013, ECON-2123, ECON-2143, POLSC-1000, POLSC-2103, POLSC-2113, POLSC-2223, POLSC-2303, POLSC-2603, POLSC-2613, PSY-1113, PSY-2113, PSY-2123, PSY-2193, PSY-2213, PSY-2403, PSY-2743, SOC-1113, SOC-1203, SOC-2013, SOC-2023, SOC-2063, SOC-2143, or SOC-2213.

HIST SUPP ELEC History Support Electives

Prerequisites:

5 Credits 5 Hours of Approved Electives Chosen From: ART 1013, ART 1023, COM 1123, COM 2213, CS 1103, ECON 1013, ECON 2123, ECON 2143, POLSC 2303, POLSC 2603, PSY 1113, PSY 2403, SOC 1113, SOC 2143, SOC 2213, Any History Prefix, or Any Foreign Language.

HUM Humanities Elective

Prerequisites:

3 Credits Humanities elective

HUM MAJOR Any Courses Taken From Hum, Engl (2123 Or Above), Or Phil Prefixes

Prerequisites:

HUM, ENGL (2123 or above), or PHIL prefixes.

HUM NON PHIL Non Phil Humanities

Prerequisites:

3 Credits Humanities elective, excluding Philosophy

JB BRDC ELEC J&B Broadcasting Major Elective

Prerequisites:

3 Credits Major Elective: Choose from JB 1013, JB 2113, JB 2303, or JB 2413

JB BRDC SUPP ELEC J&B Broadcasting Support Elective

Prerequisites:

5 Credits Support Electives: any course or courses of the student's choosing - a modern language is recommended.

JB ELEC J&B Journalism Electives

Prerequisites:

8 Credits Electives (any courses of the student's choosing; a modern language is recommended)

JB MAJ ELEC J&B Journalism Major Elective

Prerequisites:

3 Credits Major Elective: Choose from JB 1013, JB 1103, JB 2113, or JB 2413

JB PR ELEC J&B Public Relations Electives

Prerequisites:

5 Credits Elective (any course or courses of the student's choosing --a modern language is recommended)

LANG Foreign Language

Prerequisites:

3 Credits Foreign language

MAJOR Major Elective

Prerequisites:

3 Credits Major elective

MATH Any 1000 Level Math Course

Prerequisites: With appropriate prerequisite.

3 Credits Any 1000 level Mathematics course

MATH1 Mathematics That Meet Occc's Mathematics Proficiency

Prerequisites:

3 Credits Mathematics that meet OCCC's Mathematics proficiency requirement

OCU GEN ED Ocu General Education Elective

Prerequisites: None

3 Credits Choose from any general education course or: BUS 2043; ENGL 2423; PSY 1113; SOC 1113; or ANY FOREIGN LANGUAGE

OCU SUPP Ocu Support Elective

Prerequisites: None

3 Credits Choose from any of these courses if not used for general education elective: BUS 2043; BUS 2073; CS 1153; or ANY FOREIGN LANGUAGE

OSRHE Osrhe Approved General Education Communications Course

Prerequisites:

3 Credits OSRHE approved General Education Communications course

OSRHE1 Osrhe Approved General Education Communications Or English Course

Prerequisites:

3 Credits OSRHE approved General Education Communications or English course

PHIL Philosophy Elective

Prerequisites: None

3 Credits Philosophy elective

PHYS Any Physical Science

Prerequisites:

3 Credits Any Physical Science

PHYS SC Any Physical Science Chosen From Astr, Phys, Chem, Or Geol Subject Areas

Prerequisites:

3 Credits Any Physical Science chosen from ASTR, PHYS, CHEM, or GEOL subject areas

POL SCI Political Science Elective

Prerequisites:

3 Credits Political Science elective

PREED ELEC Pre-Education Electives

Prerequisites:

15-16 Credits Students should choose 15-16 hours from the Pre-Education electives to be chosen based on university student plans to transfer to; students need to meet with advisor regarding selection of electives: MATH 2023; MATH 2213; GEOL 1064; PHYS 1114; CHEM 1115; ASTR 1514; HIST 1483/1493; SPAN 1115; SPAN 1225; FREN 1115; FREN 1225; GRMN 1115; GRMN 1225; PSY 2403; PSY 1113; SOC 1113; BIO 1023

PSYCH Psychology Elective

Prerequisites:

3 Credits Psychology elective

SOC Sociology Elective

Prerequisites:

3 Credits Sociology elective

SOC SC Social Science Elective

Prerequisites:

3 Credits Social Science elective

SOC ST Social Studies Elective (Psy, Soc, Or Econ)

Prerequisites:

3 Credits Social Studies elective (PSY, SOC, or ECON)

SUPP Guided Support Elective

Prerequisites:

3 Credits Guided Support elective

SUPP ELEC Support Elective

Prerequisites:

3 Credits Support elective

UCO GEN ED Uco General Education Elective

Prerequisites: None

3 Credits Choose from any general education course or BUS 2043 or FIN 1013

UCO SUPP Uco Support Elective

Prerequisites: None

3 Credits Choose from any of these courses if not used for general education elective: BUS 1013; BUS 2043; FIN 1013; MKT 2043; CS1103; PSY 1113; SOC 1113; or ANY FOREIGN LANGUAGE

Emergency Medical Sciences

EMS 1000 Special Topics

Prerequisites: ENGL 0203, adequate placement score, or by meeting determined placement measures

VARIABLE 1-4 Credits The student will demonstrate specified competencies in subject areas not covered in other emergency medical technology courses, but which are beneficial in providing better understanding of the field. A specific subject is announced for each offering. Enrollment may be repeated with a change of topic.

EMS 1019 Emergency Medical Technology

Prerequisites: ENGL 0203, adequate placement score, or by meeting determined placement measures

9 Credits The student will be able to do the following by describing the role of the Emergency Medical Technician in an emergency medical services system: perform patient assessment on patients with traumatic injuries and patients with medical emergencies, manage a multi-casualty incident including triage, correctly manage traumatic injuries to the body and its systems, as well as medical emergencies of varying types and causes, perform lifting and moving techniques and light extrication. The student will summarize and interpret legal responsibilities of safe ambulance operations; evaluate psychological and physical factors affecting safe emergency vehicle operations, incident command, hazardous materials incidents, crime scene awareness, rescue awareness. The student will demonstrate techniques for gaining access to the patient, disentanglement, patient movement, and recognize and manage situations posing threats to patients, EMT's or bystanders. This course includes, principles of safely operating a ground ambulance, and current required NIMS and Hazardous Materials training. Additionally, the student will describe current EMS law as it applies to the EMT. A field and hospital practicum are an integral part of the course, for which liability insurance, a student uniform, and a physical, including certain immunizations, are required.

EMS 1113 ECG Interpretation and Procedures

Prerequisites: ENGL 0203, adequate placement score, or by meeting determined placement measures

3 Credits ECG Interpretation introduces the student to the electrical conduction system of the heart and basic ECG interpretation of cardiac rhythms and dysrhythmias and procedures related to the management of these dysrhythmias. The student will be expected to accept accountability for personal learning and performance which reflects a fundamental understanding of basic ECG interpretation, 12 lead interpretation including identification of acute myocardial infarction, application and acquisition of 12 lead ECG, defibrillation, cardioversion and transcutaneous pacing. This course is designed for paramedic students, nursing students, graduate nurses, CCU monitor technicians and other healthcare providers who require ECG interpretation skills.

EMS 1314 Paramedic Care I, Introduction to Paramedicine

Prerequisites: EMS 1019; or National Registry of EMT certification (EMT, AEMT or EMT-I); Pre or Corequisite: BIO 1314 Human Anatomy and Physiology I.

4 Credits Paramedic Care I introduces the student to basic EMS knowledge, life span development, an advanced level patient assessment, clinical reasoning, and the components of safe quality care. The student will be expected to accept accountability for personal learning and performance which reflects a fundamental understanding of EMS history and a complex understanding of EMS systems, roles, responsibilities, professionalism of EMS personnel, of quality improvement, patient, public and workforce safety, workforce wellness, documentation, communication, patient assessment, and research principles including ethics, legalities, and standards of paramedic practice. Includes Laboratory and Clinical Shifts.

EMS 1324 Paramedic Care II, Trauma Emergencies

Prerequisites: Pre or Corequisite: EMS 1314 Paramedic Care I

4 Credits Paramedic Care II is a study of all age groups, of advanced assessment, pathophysiology, and management of trauma emergencies. Course to include clinical reasoning and the development of treatment plans. The student will be expected to accept accountability for personal learning and performance which reflects a complex understanding of circulatory support, hemorrhage, all etiologies of shock, resuscitation, chest, abdominal, genitourinary, orthopedic, soft tissue, head, neck, face, nervous system, environmental and multi system trauma, and to apply standards of paramedic practice. Includes Laboratory and Clinical Shifts.

EMS 1334 Paramedic Care III, Medical Emergencies I

Prerequisites: EMS 1324 Paramedic Care II, Trauma Emergencies; Pre or Corequisite: BIO 1414 Human Anatomy and Physiology II, EMS 1113 ECG Interpretation.

4 Credits Paramedic Care III, Medical Emergencies I is a study of adult epidemiology, psychosocial impact, pathophysiology, presentation, prognosis, and management of medical emergencies. Course to include clinical reasoning and the development of treatment plans. The student will be expected to accept accountability for personal learning and performance which reflects a complex understanding and ability to apply knowledge and skills to neurological emergencies; allergies and anaphylaxis; abdominal and gastrointestinal disorders; immunological, endocrinological, toxicological, hematological, genitourinological, renal, non-traumatic musculoskeletal, behavioral and psychiatric disorders; infectious diseases; and the application of standards of paramedic practice. Includes Laboratory and Clinical Shifts.

EMS 2044 Paramedic Care IV, Medical Emergencies II

Prerequisites: EMS 1324 Paramedic Care II; Pre or Corequisite: BIO 1414 Human Anatomy and Physiology II, EMS 1113 ECG Interpretation.

4 Credits Paramedic Care IV is a study and practical application of adult epidemiology, psychosocial impact, pathophysiology, and management of respiratory and cardiovascular emergencies. Course to include clinical reasoning and the development of treatment plans. The student will be expected to accept accountability for personal learning and performance which reflects a complex understanding and ability to apply knowledge and skills in scenario based education to respiratory and cardiovascular emergencies and apply standards of paramedic practice. Advanced Cardiac Life Support certification, Laboratory and Clinical Shifts included.

EMS 2054 Paramedic Care V, OB and Pediatric Emergencies

Prerequisites: EMS 2044 Paramedic Care IV, Medical Emergencies II; Corequisite: EMS 2064

4 Credits Paramedic Care V is a study of neonatal and pediatric conditions and emergencies including epidemiology, psychosocial impact, anatomy, physiology, pathophysiology, presentation, prognosis, and management. Course to include clinical reasoning and the development of treatment plans. The student will be expected to accept accountability for personal learning and performance which reflects a complex understanding and ability to apply knowledge and skills in common neonatal and pediatric disorders and emergencies including respiratory, cardiovascular, shock and resuscitation, technology dependent, chronic illness emergencies, abuse, neglect, and poverty using the application of standards of paramedic practice. Includes Pediatric Advanced Life Support certification, Laboratory and Clinical Shifts included.

EMS 2064 Paramedic Care VI, Special Populations

Prerequisites: EMS 2044 Paramedic Care IV

4 Credits Paramedic Care IV is a study of common disorders and emergencies in the geriatric, bariatric, and patients with special challenges including epidemiology, psychosocial impact, anatomy, physiology, pathophysiology, presentation, prognosis, and management. Course to include clinical reasoning and the development of treatment plans. The student will be expected to accept accountability for personal learning and performance which reflects a complex understanding and ability to apply knowledge and skills in emergencies affecting special populations including polypharmacological impacts, chronic illness, abuse, neglect, poverty, and the terminally ill using the application of standards of paramedic practice. Laboratory and Clinical Shifts included.

EMS 2274 EMS Leadership

Prerequisites: EMS 2064 Paramedic Care VI, Co-requisite: EMS 2284 Paramedic Practicum

4 Credits EMS Leadership is the capstone course integrating all didactic knowledge, psychomotor skills, affective behavior and clinical instruction throughout the program to demonstrate entry level paramedic competency and apply clinical decision making. The student will be expected to accept accountability for personal learning and performance which reflects a complex understanding and the ability to apply knowledge and skills in clinical decision making. The course includes EMS Operations in which the student will demonstrate techniques for gaining access to the patient, disentanglement, patient movement, preparation for transport, recognition of situations posing threats to patients, paramedics or bystanders, and describe correct management of these situations. This course includes crew resource management principles, principles of safely operating a ground ambulance, and current required NIMS and Hazardous Materials Awareness training.

EMS 2284 Paramedic Practicum

Prerequisites: EMS 2064 Paramedic Care VI, Corequisite: EMS 2274 EMS Leadership

4 Credits The Paramedic Practicum is an essential part of the Paramedic Program. The student will successfully complete required supervised hours and competencies in approved clinical and prehospital sites as determined by the OSDH, CAAHEP/CoAEMSP and the program. The purpose of the Paramedic Practicum is to allow the application of learned principles in the delivery of patient care and gain a basic understanding of supervisory roles in EMS. An internship and Medical Director evaluation are an integral part of this course.

Engineering

ENGR 1000 Special Topics

Prerequisites: Instructor approval

VARIABLE 1-4 Credits Students will demonstrate specified competencies in subjects not included in other engineering courses, but which benefit those seeking additional training or enrichment in the field. A specific topic is announced for each offering. Enrollment may be repeated with a change of topic.

ENGR 1011 Metal Cutting and Welding

Prerequisites: Instructor approval

1 Credit The student will explore the various methods of cutting and welding of common metals. Student projects are a major portion of the course.

ENGR 1113 Introduction to Engineering

Prerequisites: Co-requisite: MATH 1613

3 Credits Students will develop familiarity with basic methods and techniques of engineering by analyzing a variety of engineering systems. Reporting methods will include written, graphical, and oral formats. Students will (1) utilize the engineering language, (2) learn computational techniques based on the calculator and computer, and (3) design engineering projects as part of a team.

ENGR 1213 Engineering Graphics Design

Prerequisites: ENGL 0203, adequate placement score, or by meeting determined placement measures

3 Credits The student will use computational techniques and computer-aided drawing to create, analyze and graphically represent solutions to architectural and engineering problems, reflecting national, international and professional norms and standards. The student will be able to describe and demonstrate familiarity with the functions and responsibilities of research, manufacturing, construction and quality assurance involved in the solutions of a variety of engineering and architectural problems. This course satisfies the computer proficiency requirement.

ENGR 2002 Professional Development

Prerequisites: Co-Requisite English 1213

2 Credits Students demonstrate knowledge of basic principles of a successful engineering enterprise: written and oral communications, planning, design, production, risk management and evaluation. Students utilize business and project management principles to complete multi-disciplinary design experiences.

ENGR 2103 Interactive Engineering Design Graphics

Prerequisites: Corequisite: ENGR 1113, MATH 2103, MATH 2203 or by evaluation. § Criteria for evaluation is in division office.

3 Credits The student will demonstrate familiarity with visualization and modeling techniques used in product design and development for a variety of engineering problems. The student will utilize (1) the engineering language including terminology, graphics and standards (2) observation, visual perception and spatial visualization (3) computer-aided design systems including solid modeling. This course satisfies the computer proficiency requirement.

ENGR 2133 Rigid Body Mechanics

Prerequisites: PHYS 2014 with a grade of "C" or better

3 Credits The student will solve problems related to static equilibrium of rigid and deformable bodies and the motion of particles and rigid bodies. Kinetics and kinematics will be studied with the application of algebra, trigonometry, scalar and vector calculus.

ENGR 2143 Strength of Materials

Prerequisites: ENGR 2133 with a grade of "C" or better --OR-- ENGR 2243 with a grade of "C" or better

3 Credits The student will solve problems related to determinate and elementary indeterminate structural analysis, stress and strain in elastic and elasto-plastic materials. Quantitative analysis will incorporate methods of scalar and vector calculus and vector algebra where appropriate.

ENGR 2200 Special Topics

Prerequisites: Instructor Approval

VARIABLE 1-6 Credits Students will demonstrate advanced competencies in subjects not included in other engineering courses, but which benefit those seeking additional training or enrichment in the field. A specific topic is announced for each offering. Enrollment may be repeated with a change of topic.

ENGR 2214 Introduction to Digital Design

Prerequisites: "C" or better in MATH 2104

4 Credits Students will learn the fundamental principles of number systems, Boolean algebra, minimization procedures, combinational logic functions, introduction to sequential logic design, finite state machines and clocked (synchronous) sequential circuits. Analysis, synthesis and implementation are appropriately emphasized.

ENGR 2243 Statics

Prerequisites: PHYS 2014 with a grade of "C" or better

3 Credits Students solve problems related to static equilibrium of particles and rigid bodies under the action of forces. Physical concepts of equilibrium and engineering applications are integrated with mathematical subjects of vector calculus, vector algebra and simultaneous algebraic equations. Note: OU Petroleum Engineering students should take ENGR 2133 Rigid Body Mechanics.

ENGR 2303 Materials, Design & Manufacturing Processes

Prerequisites: ENGR 2133 with a grade of "C" or better --OR-- ENGR 2243 with a grade of "C" or better; CHEM 1115 with a grade of "C" or better --OR-- CHEM 1415 with a grade of "C" or better

3 Credits Students will be introduced to design concepts, manufacturing processes and equipment used in engineering. Students will demonstrate knowledge of mechanical and physical properties of engineering materials.

ENGR 2313 Structure and Properties of Materials

Prerequisites: CHEM 1115 and concurrent enrollment in PHYS 2114

3 Credits The student will solve problems related to the behavior of materials under serious conditions and environments in relation to atomic and molecular structure and bonding.

ENGR 2333 Thermodynamics

Prerequisites: CHEM 1115 with a grade of "C" or better --OR-- CHEM 1415 with a grade of "C" or better

3 Credits The student will solve problems related to an understanding of the first and second laws of thermodynamics, ideal gases, multi-phase fluids, and thermodynamic cycles. Quantitative analysis will incorporate methods of algebra and calculus where appropriate.

ENGR 2343 Fluid Mechanics

Prerequisites: ENGR 2133 with a grade of "C" or better --OR-- ENGR 2243 with a grade of "C" or better; CHEM 1115 with a grade of "C" or better --OR-- CHEM 1415 with a grade of "C" or better

3 Credits The student will solve problems related to the statics and dynamics of fluid flow and apply Stokes, Eulers and Bernoulli equations to analyze the characteristics of fluid flow in external and internal flow scenarios. Quantitative analysis will incorporate methods of algebra, trigonometry and calculus where appropriate.

ENGR 2523 Dynamics

Prerequisites: ENGR 2133 with a grade of "C" or better --OR-- ENGR 2243 with a grade of "C" or better

3 Credits Students solve problems related to accelerated motion of bodies. Kinetics and kinematics along with conservation of energy, momentum, and angular momentum are utilized to analyze the motion of both particles and rigid bodies with the application of algebra, trigonometry, and scalar and vector calculus.

ENGR 2613 Electrical Science

Prerequisites: PHYS 2114 with a grade of "C" or better

3 Credits The student will analyze DC and AC circuits including three-phase circuits. Analysis techniques will include Kirchhoff's laws, Thevenin's Theorem and Norton's Theorem. Quantitative analysis will incorporate methods of algebra, trigonometry and calculus where appropriate.

ENGR 2623 Circuits and Sensors

Prerequisites: "C" or better in PHYS 2114

3 Credits This course will cover analysis of DC circuits, first and second-order transient circuits, and AC circuits. Analysis techniques will include Kirchoff's laws, Thevenin's and Norton's theorems, and Laplace transforms. Quantitative analysis will incorporate methods from algebra, trigonometry, and calculus. This course is specifically intended for Aerospace Engineering majors at the University of Oklahoma.

ENGR 2713 Digital Signals and Filtering

Prerequisites: MATH 2214 with a grade of "C" or better; CS 1143 with a grade of "C" or better

3 Credits The student will solve problems related to an understanding of digital signals and filters, discrete Fourier A and Z transforms, and sampling. Quantitative analysis will incorporate methods of algebra and calculus where appropriate. This course satisfies the computer proficiency requirement.

English

ENGL 0106 College Preparation English I

Prerequisites: Assessment required prior to enrollment.

In this course, students will develop and increase basic skills in reading and writing processes. College-level academic vocabulary, reading comprehension development, and effective writing fundamentals will be emphasized through the use of thematic-based instruction, cooperative learning, and technology.

ENGL 0111 English Composition Companion

Prerequisites: N/A

1 Credit The student will write well-developed compositions which demonstrate the principles of unity, coherence, and organization. The student may locate materials and incorporate researched materials into compositions. This course will provide additional support and assistance in brainstorming, drafting, and formatting for the major essays. In addition, this companion includes: in class and online resources; reading reinforcement: comprehension activities; grammar review; how to locate and incorporate researched materials into compositions; and discussions about successful writing strategies. Use of on-line learning tutorial activities is also a requirement of the course.

ENGL 0203 College Preparation English II

Prerequisites: Adequate writing assessment score or College Preparation English I (ENGL 0106), either taken within the last year, with strong encouragement for immediate continuation.

In this course, students will develop and increase skills in reading and writing processes with special focus on reading and writing in college level courses. Students will expand academic vocabulary, reading comprehension, and effective writing techniques through the use of thematic-based instruction, cooperative learning, and technology.

ENGL 0233 Spelling/vocabulary Development

Prerequisites: None.

After appropriate instruction in common spelling rules, mnemonic techniques, the use of a dictionary and a thesaurus, and the study of common (Greek and Latin) word parts, the student will become more proficient in standardized spelling and will increase his or her written and spoken vocabulary.

ENGL 1000 Special Topics

Prerequisites: ENGL 0203, adequate placement score, or by meeting determined placement measures

VARIABLE 1-3 Credits The student will demonstrate competencies in subjects not covered in other specific courses in English (ENGL). Each course will cover a specific topic and may be repeated with a change in content.

ENGL 1103 Multicultural English Composition I

Prerequisites: ENGL 0203, adequate placement score, or by meeting determined placement measures

3 Credits Multicultural English Composition I for multicultural and international students who speak a second language.

ENGL 1113 English Composition I

Prerequisites: ENGL 0203, adequate placement score, or by meeting determined placement measures

3 Credits The student will write well-developed compositions which demonstrate the principles of unity, coherence, and organization and which contain specific details and vivid language. The students will locate library material and incorporate researched materials into compositions.

ENGL 1123 Multicultural English Composition II

Prerequisites: ENGL 1103 or ENGL 1113 taken within the last year, with strong encouragement for immediate continuation.

3 Credits In this advanced writing course, students will create essays that explore or evaluate a variety of issues and perspectives suggested by fiction, poetry, drama, essays and other types of cultural texts. Students will refine and augment the writing techniques they learned in ENGL 1113 or ENGL 1103 to develop well-reasoned, well-structured arguments in a clear, fluid, and engaging prose style.

ENGL 1133 Critical and Efficient Reading

Prerequisites: ENGL 0203, adequate placement score, or by meeting determined placement measures

3 Credits This course is designed to enhance practical and critical reading skills. Topics include vocabulary enrichment, reading flexibility and efficiency, rate, metacognitive strategies, and advanced comprehension skills, including analysis and evaluation. Upon completion, students should be able to demonstrate comprehension and respond effectively to material across disciplines.

ENGL 1203 Business English

Prerequisites: ENGL 1113

3 Credits The student will be able to correctly apply rules of grammar, punctuation, sentence structure and paragraph development used in business communications and be able to differentiate between these rules and those for literary compositions.

ENGL 1213 English Composition II

Prerequisites: ENGL 1103 or ENGL 1113 taken within the last year, with strong encouragement for immediate continuation.

3 Credits In this advanced writing course, students will create essays that explore and evaluate a variety of issues and perspectives suggested by fiction, poetry, drama, essays, and other types of cultural texts. Students will refine and augment the writing techniques they learned in ENGL 1113 or ENGL 1103 to develop well-reasoned, well-structured arguments in a clear, fluid, and engaging prose style.

ENGL 1233 Technical Writing for the Workplace

Prerequisites: ENGL 1113 or ENGL 1103; MATH 0203 College Prep Math II or adequate Math Placement Test Score

3 Credits This course will expose students to technical communication and will allow students to practice professional methods of writing in the workplace. In addition to constructing technical documents appropriate for use in professional and job-related environments, students will learn about rhetorical methods for presenting technical information in ethical and formal prose designed for clear and effective communication with employers and colleagues. This course will equip the student with written and oral communication skills necessary for sharing information and discussing content in professional settings; developing an awareness of technical genres; utilizing technological platforms for constructing documents; using visuals and graphics professionally; writing professional correspondence; constructing reports; designing project proposals; and composing instructions. This course satisfies the computer proficiency requirement.

ENGL 2000 Creative Writing

Prerequisites: ENGL 0203, adequate placement score, or by meeting determined placement measures

VARIABLE 1-4 Credits Given basic instruction in skills associated with writing poetry, fiction, drama and non-fiction, the student will produce examples of the type of writing on which the instruction is focused. Credit is variable; with different content it may be repeated.

ENGL 2103 Humanities Composition

Prerequisites: ENGL 1213

3 Credits The student will improve basic composition skills by constructing essays based on assignments in humanistic readings about the following: drama, art, music, literature, history, and philosophy.

ENGL 2110 Readings

Prerequisites: ENGL 1113

VARIABLE 1-3 Credits The student enrolled in this course will read various popular literary forms. The purpose of these readings will be to enhance the student's reading abilities as well as to enable him or her to develop lifetime reading habits.

ENGL 2123 Introduction to Literature

Prerequisites: Prerequisite or Corequisite: ENGL 1213

3 Credits This course is a study of literary forms and genres, including short story, poetry, drama, and novels. Students will be introduced to literary terminology, critical theories, and a diversity of authors and literary styles. Through various assignments, written and/or oral, students will demonstrate their ability to analyze, evaluate and interpret literary forms.

ENGL 2133 Introduction to Poetry

Prerequisites: ENGL 1113

3 Credits This course is a study of poetry as literary art with emphasis on understanding, recognizing, and appreciating poetic forms and techniques. Students will interpret, analyze, and evaluate poems from a variety of literary periods and cultures.

ENGL 2143 Introduction to Grant Proposal Development

Prerequisites: MATH 0203 College Prep Math II or adequate Math Placement Test Score; ENGL 0203, adequate placement score, or by meeting determined placement measures

3 Credits This course prepares students in the fundamentals of writing grant proposals for nonprofit organizations, tax-exempt institutions or for other purposes. Students will examine effective grants, as well as explore and demonstrate understanding of all essential aspects of grant writing including the proposal narrative and budget. Students will also practice developing grants that answer private, state and federal Requests for Proposals (RFPs).

ENGL 2213 Creative Writing--Fiction

Prerequisites: ENGL 0203, adequate placement score, or by meeting determined placement measures

3 Credits In this fundamental creative writing course, the students will develop the skills associated with fiction writing and produce samples worthy of publication.

ENGL 2223 Creative Writing--Poetry

Prerequisites: ENGL 0203, adequate placement score, or by meeting determined placement measures

3 Credits In this fundamental creative writing course, the students will develop skills associated with poetry writing and produce samples worthy of publication.

ENGL 2323 The Shakespeare Plays

Prerequisites: ENGL 1113

3 Credits After reading, discussing, attending lectures and viewing commercially produced films of selected plays, the student will describe the role of these plays within the literary, historical and cultural context of the Renaissance.

ENGL 2333 Introduction to The Novel

Prerequisites: ENGL 1113

3 Credits Students will read several novels from a variety of historical periods. After additional study of the different types and techniques of novels, the student will describe the common characteristics and the special features of this literary form.

ENGL 2343 The Short Story

Prerequisites: ENGL 1113

3 Credits After reading and discussing a wide selection of story masterpieces and commentaries on those short stories, the student will be able to describe the historical and literary development of this literary form.

ENGL 2353 Native American Literature

Prerequisites: ENGL 1113

3 Credits Students will study the literary, historical, and traditional backgrounds of Native American cultures. After studying selected tribes and reading poems, short stories and novels by Native American authors, students will be able to describe the characteristics of Native American literature. Students, furthermore, will be able to explain the importance of Native American literature within the canon of non-Western world literature.

ENGL 2363 African American Literature

Prerequisites: ENGL 1113

3 Credits Students will read literature from the African-American culture and demonstrate understanding of the culture and its literature through discussions and written work. The student will be able to construct appropriate written and/or oral statements concerning literary, historical, cultural, and philosophical movements of the African-American culture from pre-slavery to the present time.

ENGL 2413 Women in Literature

Prerequisites: ENGL 1113

3 Credits After reviewing literature written by and about women of various times and places, students will examine and interpret values and attitudes from a variety of perspectives suggested by the readings. Lectures, discussions, and papers will emphasize relationships between social, political, and personal issues while making global connections, both historical and contemporary, and exploring the universality and variety of women's issues.

ENGL 2423 Survey of World Literature I

Prerequisites: ENGL 1213

3 Credits This course is a survey of world literature from the time of ancient civilizations to about 1600. Students will study representative works that comprise literary traditions from diverse cultures throughout the world. The cultural, historical and philosophical influences of the literature will also be examined.

ENGL 2433 Survey of World Literature II

Prerequisites: ENGL 1213

3 Credits This course is a survey of world literature from about 1600 to contemporary times. Students will study representative works that comprise literary traditions from diverse cultures throughout the world. The cultural, historical and philosophical influences on the literature will also be examined.

ENGL 2543 Survey of English Literature I

Prerequisites: ENGL 1213

3 Credits This course is a survey of English literature from the Anglo-Saxon era up to approximately 1798. Students will study representative works that shaped the literary canon and traditions in English literature, placing them in their literary, historical, philosophical, and cultural contexts.

ENGL 2653 Survey of English Literature II

Prerequisites: ENGL 1213

This course is a survey of English literature from the Romantic Age to the present. Students will study representative works that shaped the literary canon and traditions in English Literature, placing them in their literary, historical, philosophical, and cultural contexts. Credits

ENGL 2773 Survey of American Literature I

Prerequisites: Prerequisites: ENGL 1213

3 Credits This course is a survey of American literature from the pre-Colonial Period to the Civil War. Students will study representative works that shaped the American literary tradition, placing them in their literary, historical, philosophical, and cultural contexts. In addition, students will examine common issues, conflicts, preoccupations, and themes found in the literary selections.

ENGL 2883 Survey of American Literature II

Prerequisites: Prerequisites: ENGL 1213

3 Credits This course is a survey of American literature from the Civil War to the present time. Students will study representative works that shaped the American literary tradition, placing them in their literary, historical, philosophical, and cultural contexts. In addition, students will examine common issues, conflicts, preoccupations, and themes found in the literary selections.

Finance

FIN 1000 Special Topics

Prerequisites: MATH 0203 or adequate math placement and ENGL 0203 or adequate placement score, or by meeting determined measures.

1-4 Credits This is a study of variety of topics in which the student will be exposed to such topics as preparing for a career in the financial services industry, assessing the job market, etc. The course may be repeated with a change of topic.

FIN 1013 Personal Finance

Prerequisites: MATH 0203 or adequate math placement and ENGL 0203 or adequate placement score, or by meeting determined measures.

3 Credits The student will solve problems involved in personal finance, including budgeting, borrowing, charge accounts, installment buying, insurance, savings, social security, home ownership, banking services, taxes, wills and estates. He or she will demonstrate mastery of these problems by applying the techniques involved to simulated personal finance problems.

FIN 2023 Introduction to Business Finance

Prerequisites: MATH 0313 or adequate math placement, ACCT 2113

3 Credits The student will study the basic concepts essential to the management of business finances and apply these concepts to problems involving financial planning, capital investments, budgeting, time value of money and financial decision making.

FIN 2033 Fundamentals of Investments

Prerequisites: MATH 0313 or adequate math placement and ENGL 0203 or adequate placement score, or by meeting determined placement measures.

3 Credits The student will examine the basic concepts of investing, methods for evaluating risk, and types of investments. The fundamental concepts will be applied to establishment of investment goals, portfolio creation and management, and determining the effects of government regulation. (This course is generally offered in the spring semester only.)

FIN 2500 Financial Services Internship

Prerequisites: MATH 0203 or adequate math placement, FIN 1013 or BF 1303, and by evaluation. Criteria for evaluation is in division office.

1-6 Credits The course will assist students in earning academic credit in a planned process that integrates academic preparation with supervised work experience. Students will work in an approved financial services environment with cooperating employers for a specified period of time, and will attend arranged lectures relating to a variety of financial services topics.

French

FREN 1115 Elementary French I

Prerequisites: ENGL 0203, adequate placement score, or by meeting determined placement measures

5 Credits The beginning student will learn essential vocabulary and grammar and will develop basic novice proficiency in understanding, speaking, reading, and writing. The student will explore significant cultural aspects of the French-speaking world.

FREN 1225 Elementary French II

Prerequisites: FREN 1115

5 Credits A continuation of FREN 1115. The student will acquire more complex vocabulary and grammar and will develop novice mid-to-high proficiency in understanding, speaking, reading, and writing. The student will continue to explore cultural aspects of the French-speaking world.

FREN 2000 Special Topics in French

Prerequisites: FREN 1225

1-6 Credits The intermediate student will explore designated aspects of language and/or culture. May be repeated with a change in subject matter.

FREN 2113 Intermediate French I

Prerequisites: FREN 1225

3 Credits The student will develop language proficiency to the intermediate low-to-mid level and will increase knowledge of the cultures and cultural practices of the French-speaking world. Multimedia course materials--including text, audio, and video--are used as the basis for comprehension and communication.

FREN 2223 Intermediate French II

Prerequisites: FREN 2113

3 Credits A continuation of FREN 2113. The student will develop language proficiency to the intermediate mid-to-high level and will advance in understanding of the cultures and cultural practices of the French-speaking world. Multimedia course materials--including text, audio, and video--are used as the basis for comprehension and communication.

Geography

GEOG 1000 Special Topics in Geography

Prerequisites: None

1-3 Credits The student will demonstrate competencies in subjects not covered in other geography courses. Each course will relate to a specific issue and may be repeated with a change in topic.

GEOG 1103 Cultural Geography

Prerequisites: NONE

3 Credits Cultural Geography is the study of spatial variations among cultural groups and the spatial functioning of society. It focuses on describing and analyzing the ways language, religion, economy, government and other cultural phenomena vary or remain constant from one place to another and on explaining how humans function spatially.

GEOG 2000 Geography Special Topics

Prerequisites: ENGL 0203, adequate placement score, or by meeting determined placement measures

1-3 Credits The student will demonstrate competencies in subjects not covered in other geography courses. Each course will relate to a specific issue and may be repeated with a change in topic.

GEOG 2603 World Regional Geography

Prerequisites: NONE

3 Credits The student will examine the world's major cultural regions and determine the relationship between the physical environment and economic, social and political conditions.

Geology

GEOL 1000 Geology Special Topics

Prerequisites: ENGL 0203

1-3 Credits The student will demonstrate specified competencies in subjects not included in other geology (or related) courses, but which benefit those seeking additional training or enrichment in that field (or related fields). A specific topic is announced for each offering. Enrollment may be repeated with a change of topic.

GEOL 1063 Earth Science

Prerequisites: ENGL 0203, adequate placement score, or by meeting determined placement measures and MATH 0203 or adequate math placement.

3 Credits Students will demonstrate their understanding of an overview of the earth sciences. The student will study the areas of astronomy, meteorology, climatology and oceanography, with the major concentration on the study of geologic principles.

GEOL 1064 Earth Science

Prerequisites: ENGL 0203, adequate placement score, or by meeting determined placement measures and MATH 0203 or adequate math placement.

4 Credits Students will demonstrate their understanding of an overview of the earth sciences. The student will study the areas of astronomy, meteorology, climatology and oceanography, with the major concentration on the study of geologic principles. Laboratory work is an integral part of the course.

GEOL 1114 General Geology

Prerequisites: ENGL 0203, adequate placement score, or by meeting determined placement measures and MATH 0203 or adequate math placement.

4 Credits Students will describe theories of the earth's formation, its composition and structure and the processes which change the earth's surface. Laboratory work and field trips are an integral part of the course.

German

GRMN 1115 Elementary German I

Prerequisites: ENGL 0203, adequate placement score, or by meeting determined placement measures

5 Credits The beginning student will learn essential vocabulary and grammar and will develop basic functional proficiency in understanding, speaking, reading, and writing. The student will explore significant cultural aspects of the German-speaking world.

GRMN 1225 Elementary German II

Prerequisites: GRMN 1115

5 Credits A continuation of GRMN 1115. The student will acquire more complex vocabulary and grammar and will develop novice mid-to-high proficiency in understanding, speaking, reading, and writing. The student will continue to explore cultural aspects of the German-speaking world.

GRMN 2000 Special Topics in German

Prerequisites: GRMN 1225

VARIABLE 1-3 Credits The intermediate student will explore designated aspects of language and/or culture. May be repeated with a change in subject matter.

GRMN 2113 Intermediate German I

Prerequisites: GRMN 1225

3 Credits The student will develop language proficiency to the intermediate low-to-mid level and will increase knowledge of the cultures and cultural practices of the German-speaking world. Multimedia course materials--including text, audio, and video--are used as the basis for comprehension and communication.

GRMN 2223 Intermediate German II

Prerequisites: GRMN 2113

3 Credits A continuation of GRMN 2113. The student will develop language proficiency to the intermediate mid-to-high level and will advance in understanding of the cultures and cultural practices of the German-speaking world. Multimedia course materials--including text, audio, and video--are used as the basis for comprehension and communication.

History

HIST 1000 Special Topics in History

Prerequisites: ENGL 0203, adequate placement score, or by meeting determined placement measures

VARIABLE 1-3 Credits The student will demonstrate competencies in subjects not covered in other history courses. Each course will relate to a specific issue and may be repeated with a change in topic.

HIST 1483 U.S. History to 1877

Prerequisites: ENGL 0203, adequate placement score, or by meeting determined placement measures

3 Credits After analyzing events in American history from 1400 to 1877 in such areas as revolution, geographic and social mobility, political reform, government precedents and war, students will be able to identify patterns of present day mobility, describe governmental operations in their society and help resolve conflict in society based on the student's search for change, precedents, and conflict in the American past. A general education requirement.

HIST 1493 U.S. History 1877 to Present

Prerequisites: ENGL 0203, adequate placement score, or by meeting determined placement measures

3 Credits After analyzing events in American history from 1877 to the present in such areas as geographic and social mobility, political reform, government precedents and war, students will be able to identify patterns of present day mobility, describe governmental operations in their society and help resolve conflict in society based on the student's search for change, precedents, and conflict in the American past. A general education requirement.

HIST 1613 Early Western Civilization

Prerequisites: ENGL 0203, adequate placement score, or by meeting determined placement measures

3 Credits After surveying the roots of civilization, students will study the origins of Western Civilization in the Greco-Roman world, medieval Europe, the European Renaissance, the Reformation, and the Age of Discovery. Students will be able to identify contributions of early Western Civilization to the emergence of the modern West, including modern Europe and the United States.

HIST 1623 Modern Western Civilization

Prerequisites: ENGL 0203, adequate placement score, or by meeting determined placement measures

3 Credits After surveying the history of Western man since 1500, the student will be able to identify main themes in the development of Western civilization and describe their effects on the civilization of modern Western man.

HIST 1713 Survey of World Civilizations to 1600 C.E.

Prerequisites: ENGL 0203, adequate placement score, or by meeting determined placement measures

3 Credits After a general introduction to the roots of human civilization, students will survey the development of the major civilizations of Mesoamerica, Africa, Asia, and Europe to 1600 C.E. After studying these major civilizations in a comparative framework, students will be able to identify and explain both common aspects of human development and dissimilarities among the particular civilizations of the pre-modern world.

HIST 1723 Survey of World Civilizations Since 1600 C.E.

Prerequisites: ENGL 0203, adequate placement score, or by meeting determined placement measures

3 Credits Students will survey the history of the major civilizations of Mesoamerica, Africa, Asia, and Europe from 1600 C.E. to the present. After studying these civilizations in a comparative framework, students will be able to identify major patterns of political, economic, social, and cultural change and conflict over a period in which contact between civilizations became more frequent and sustained and the West rose to world prominence.

HIST 2000 Special Topics in History

Prerequisites: Pre or Corequisite: Any 1000 level History course or by evaluation. § Criteria for evaluation is in division office.

VARIABLE: 1-4 Credits In this course, the student will build on his or her background in U.S. History or Western Civilization survey courses. The student will develop a basic bibliography for a special topic in history. The bibliography will include primary and secondary sources. The student will learn writing skills that extend beyond the requirements of the survey course. The course will foster communication skills that will prepare the student to create an oral or written presentation on the historical topic. The student will be given an opportunity to develop computer software skills using the latest presentation software available. This course may be repeated with a change in content.

HIST 2013 History of Russia

Prerequisites: ENGL 0203, adequate placement score, or by meeting determined placement measures

3 Credits After studying the history of Russia from its beginning to the present, students will be able to identify and explain the political, economic, social, and cultural changes that occurred through the various stages of Russian development.

HIST 2103 Oklahoma History

Prerequisites: ENGL 0203, adequate placement score, or by meeting determined placement measures

3 Credits After analyzing events in Oklahoma history from the earliest times to the present in such areas as Indian acculturation, development of natural resources and political reform, the student will be able to relate his or her occupation to the needs of the state, describe his or her cultural inheritances in Oklahoma, and describe state governmental operations.

HIST 2133 Survey of Women's History

Prerequisites: ENGL 0203, adequate placement score, or by meeting determined placement measures

3 Credits Students will study the history of women, focusing on events from the American Colonial Period to the present. An emphasis will be placed on an array of viewpoints, including family and work life, politics, demographics, and sexuality.

HIST 2203 The American Indian

Prerequisites: ENGL 0203, adequate placement score, or by meeting determined placement measures

3 Credits After analyzing events in Native American history including artifacts, social organization, recreation, art, religion, ceremonialism, history, prehistory and acculturation, the student will describe Indian cultural differences, identify trends in white-Indian relationships, explain how native cultures have influenced contemporary American culture and assess the major issues of the American Indians, past, present and future.

HIST 2303 Historical Research, Methods, and Writing

Prerequisites: ENGL 1113

3 Credits The course is designed for History majors. It will prepare students to research and write research papers. Papers will present results of investigations on historical topics. Students will learn how to use library as a research tool for primary and secondary sources. The course will emphasize the importance of gathering, interpreting, and documenting evidence, organizing ideas and drawing conclusions.

HIST 2353 World History: Latin America

Prerequisites: ENGL 1113

3 Credits Students will survey the history of Latin America, focusing on indigenous inhabitants, their interaction with Europeans, especially the Spanish and Portuguese, the colonization process, independence movements and current economic, political and cultural issues. Course materials include textbooks and novels that relate the histories of the area as well as journal articles, websites and other sources. Student assignments will be submitted electronically.

Humanities

HUM 1113 Music Appreciation

Prerequisites: ENGL 0203, adequate placement score, or by meeting determined placement measures

3 Credits After listening to and studying a variety of pieces representative of traditional forms of music, the student will identify and describe each of these forms. Emphasis will be on listening and the development of informed, critical listening habits. Attendance at musical concerts is required. This course is designed for non-music majors.

HUM 2000 Humanistic Studies

Prerequisites: ENGL 1113

VARIABLE 1-6 Credits With the assistance of a mentor, the student will develop and use a method to make humanistic inquiries into a topic which both agree adds to the understanding of human experience. Credit is variable; with different content it may be repeated for up to 6 credits.

HUM 2103 Music Masterpieces

Prerequisites: ENGL 0203, adequate placement score, or by meeting determined placement measures

3 Credits The student will listen to selected musical compositions from Bach to the 20th century composers and make accurate oral and written comments which describe the expressive features and cultural importance of these selections. The course may be repeated with a change in content.

HUM 2120 Museum Studies

Prerequisites: ENGL 1113

VARIABLE 3-5 Credits After visiting selected museums and attending lectures, discussions, and presentations on related topics, the student will research and make accurate oral and/or written statements about how the collections in various types of museums reflect human values and cultural traditions.

HUM 2133 Comparative Religions

Prerequisites: ENGL 1113

3 Credits This course is a study of the major world religions both ancient and modern. The student will examine and compare historical developments, major historical figures, philosophical tenets and /or belief systems, and sacred texts from various religions. Also, students will evaluate the impact of these elements within a contemporary, global framework.

HUM 2143 Mythology

Prerequisites: ENGL 1113

3 Credits In this review of myth throughout history, students will examine common motifs shared by myths from various cultures. In discussions and written responses, students will analyze the connections between myths and describe the function of myth in society and its importance to the individual.

HUM 2153 Introduction to Eastern Thought

Prerequisites: ENGL 1113

3 Credits This survey course is designed to introduce the student to the major religious and philosophic systems of the Asian world. After completing the course, the student will be able to accurately describe and discuss the historical development and major concepts of Hinduism, Buddhism (including Zen), Confucianism and Taoism.

HUM 2163 Leadership Development

Prerequisites: ENGL 1113

3 Credits Given examples of leadership qualities and skills which are evident in selected readings from classical literature, portrayed in selected films and discussed in contemporary leadership theory, the student will develop a fundamental understanding of leadership and the skills manifest in effective leaders. Participation in course discussions and activities will enable the student to develop personal leadership abilities.

HUM 2213 Humanities Classical and Medieval

Prerequisites: ENGL 1113

3 Credits This course is a study of the humanities from pre-history through the early Renaissance. The student will recognize, interpret, and evaluate the interrelationship of art, architecture, literature, philosophy, and music and their legacies and impact on contemporary culture.

HUM 2223 Humanities Modern

Prerequisites: ENGL 1113

3 Credits This course is a study of the humanities from the early Renaissance to the present. The student will recognize, interpret, and evaluate the interrelationship of art, architecture, literature, philosophy, and music and their legacies and impact on contemporary culture.

HUM 2233 European Film

Prerequisites: ENGL 1113

3 Credits After viewing classic and contemporary European films, the student will identify and describe those technical and artistic qualities which characterize fine films. The student will accurately describe the role of European cinema within the cultural framework of western civilizations.

HUM 2243 Film Studies

Prerequisites: ENGL 1113

3 Credits The focus in this course will be on these film topics: composition, cinematography, editing, and sound techniques; in addition, the student will study narrative structure, thematic elements, and viewer response. Instructional films and readings will enable the student to understand each of these topics; furthermore, the student will view several classic and modern American and international films to exemplify and clarify cinematic techniques and concepts. The student will write and speak critically about film and its role in human culture.

HUM 2253 Documentary Films

Prerequisites: ENGL 1113

3 Credits Given historical information about documentary films, screenings of selected documentaries and discussions of the films' purposes and effects, a student will discuss orally or in writing how documentary films display, influence, and examine human values.

HUM 2263 American Cinema

Prerequisites: ENGL 1113

3 Credits The focus in this course will be on these film topics: history and development, the studio system, economic structure, technical and critical vocabulary, style, the star, genres, themes, and audience. Instructional films and readings will enable the student to understand each of these topics; furthermore, the student will view several classic and contemporary American films to exemplify and clarify cinematic techniques and concepts. The student will think and write critically about film and its role in American culture.

HUM 2273 International Cinema

Prerequisites: ENGL 1113

3 Credits In International Cinema, students will examine the themes and techniques of world films. Movies from various lands and cultures will be viewed, and students will write or speak critically about cinematic qualities, the cultural values, and the human conditions observed in the films.

HUM 2283 Film Genre

Prerequisites: ENGL 1113

3 Credits In Film Genre, students will examine the themes and techniques of films in one of the primary genre. Students will view and study movies from a specific genre: comedy, science fiction, horror, independent, western, film noir, combat, animation, musical or crime/gangster. Students will write and speak critically about recurring patterns, conventions, and film techniques that predominate in a genre. Furthermore, students will be able to express their ideas concerning the cultural values represented or challenged by the particular genre.

HUM 2293 Folklore

Prerequisites: ENGL 1113

3 Credits HOURS By reviewing literary and other artistic examples of folklore from around the world, students will study the evolution of the folktale and the development of lore. Through discussion and written responses, students will describe the functions of folklore and analyze its importance to the individual and to various cultures throughout history.

HUM 2353 History of Science

Prerequisites: ENGL 1113

3 Credits This course satisfies three credit hours of the General Education Humanities for all Associate in Arts, Science, and Diversified Studies degrees. Course units will examine selected episodes or periods in the history of science from ancient times until the present day. The course will treat the interaction of science and scientists with the social context as well as the internal structure and evolution of scientific ideas. Explanations of scientific theories and principles are not technical, and no special competence in science or mathematics is required.

HUM 2373 Introduction to World Music

Prerequisites: ENGL 1113

3 Credits After a brief introduction to the aesthetic and functional dimensions of non-western music, students will learn to listen critically to indigenous music of several geographical areas and to analyze and make oral and written statements about its components. They will also examine the unique cultural, political, and religious factors which give rise to certain types of music. Students are encouraged to attend live performances whenever possible, and guest musicians are scheduled to visit the class. No previous musical training is assumed.

HUM 2423 Advocates of Peace

Prerequisites: ENGL 1113

3 Credits Advocates of Peace deals with a section of East-West culture and politics often overlooked today: the positive and successful influence one individual can have over the masses. In this course, the student will recognize the interdependency of people from totally different geographical and cultural backgrounds using the same ideas of non-violence and non-aggression to combat suppression of and discrimination against any group of people. Two dynamic leaders, Mahatma Gandhi and Dr. Martin Luther King, Jr., have been chosen to exemplify this process. They are as radically different in most respects as one can imagine, and yet, as philosopher politicians, they used the same concepts of non-aggressiveness and non-violence to bring freedom to their peoples.

Journalism and Broadcasting

JB 1000 Special Topics

Prerequisites: ENGL 0203, adequate placement score, or by meeting determined placement measures

VARIABLE 1-4 Credits The student will demonstrate competencies in subjects not covered in other mass media courses. Each course will cover a specific topic in Mass Media Communications and may be repeated with a change of subject matter.

JB 1013 Introduction to Mass Communication

Prerequisites: ENGL 0203, adequate placement score, or by meeting determined placement measures

3 Credits The student will describe the development, scope, functions and information resources of mass media, emphasizing the role of the consumer and the professional in mass communication and in solving contemporary problems in the mass media.

JB 1103 Audio Production

Prerequisites: ENGL 0203, adequate placement score, or by meeting determined placement measures

3 Credits The student will use audio production techniques and equipment to produce program material of professional quality. Extensive laboratory work is required.

JB 1133 News Writing

Prerequisites: ENGL 0203, adequate placement score, or by meeting determined placement measures

3 Credits The student will become familiar with and proficient in the use of various news gathering and news writing techniques common to both the print media and the broadcast media. The student will demonstrate mastery by writing acceptable news stories, features, human interest stories and interpretive reports. Typing skills are required. This course satisfies the computer proficiency requirement.

JB 2000 Internship

Prerequisites: ENGL 0203, adequate placement score, or by meeting determined placement measures

VARIABLE 1-3 Credits The student will work in a professional setting with practitioners in either radio, television, advertising, audio production, video production, photo, public relations, or print journalism. The course may be repeated to a maximum of 6 credit hours with the consent of the instructor.

JB 2103 Independent Projects

Prerequisites: ENGL 0203, adequate placement score, or by meeting determined placement measures

3 Credits The student may choose a project in the area of radio, television, photography, journalism, cinematography, or advertising with the advice and consent of the instructor. The student will produce materials of a professional quality ready for publication or broadcast. This course may be repeated.

JB 2113 Advertising

Prerequisites: ENGL 0203, adequate placement score, or by meeting determined placement measures

3 Credits The student will describe various aspects of the preparation of advertising through both the print and electronic media. He or she will effectively use typography, graphics, photography, layout, music, and sound effects in the preparation of an advertising campaign that uses both print and electronic media.

JB 2303 Magazine Feature Writing

Prerequisites: ENGL 0203, adequate placement score, or by meeting determined placement measures

3 Credits This course is designed for the writer who is beginning to write short to medium-length non-fiction articles. Students will review the markets, develop ideas, study interview techniques, and develop writing style by writing feature articles.

JB 2413 Principles of Public Relations

Prerequisites: ENGL 0203, adequate placement score, or by meeting determined placement measures

3 Credits The student will describe the history, scope, ethics and functions of public relations. He or she will effectively use a multimedia approach in the preparation of a public relations campaign with particular attention to ways of gaining public support for an activity, cause, movement or institution.

JB 2643 Video Production

Prerequisites: ENGL 0203, adequate placement score, or by meeting determined placement measures

3 Credits The student will use video production techniques to produce, edit and direct program materials of broadcast quality. Extensive laboratory work is required.

Leisure

LEIS 1602 Total Wellness

Prerequisites: None

3 Credits Students will learn the different aspects of health including physical, mental, and emotional aspects. They will develop an understanding of health and be able to identify a healthy lifestyle. Students will also learn the different levels of physical fitness appropriate for different levels of development: childhood, adolescence, adulthood and older adulthood.

LEIS 2132 Care and Prevention of Athletic Injuries

Prerequisites: None

3 Credits This course is designed to provide the student with the basic knowledge to assist with the prevention, recognition, and care of athletic injuries. It is a basic introduction to the field of sports medicine. The student will learn basic skills in taping and bracing. He/she will also be able to implement a prevention program for athletic injuries which will include education in exercise, flexibility and nutrition.

Library Information Studies

LIS 1000 Special Topics in Library Skills

Prerequisites: ENGL 0203, adequate placement score, or by meeting determined placement measures

1-3 Credits Students will learn and demonstrate competency in information literacy and research methods relevant to college coursework. Courses will benefit students in disciplines throughout the college by providing instruction in and application of topics such as Mapping the Research Process, Skilled Database Searching, Evaluating Online Resources, and Information Literacy. Each semester offering will include an additional subject matter specific to that semester's class. This course may be repeated with a change in subject matter.

LIS 1111 Research Skills

Prerequisites: ENGL 0203, adequate placement score, or by meeting determined placement measures

1 Credit Students will be introduced to some of the best practices for successful research in order to improve their information literacy. Students will learn to research varied sources relevant to their educational, career, and personal information needs with confidence and skill. General topics include searching, evaluating, and selecting financial, career, educational, health, wellness, and global awareness resources.

Management

MGMT 1533 Introduction to Service Management

Prerequisites: ENGL 0203, adequate placement score, or by meeting determined placement measures.

3 Credits The student will demonstrate knowledge of the service management field. Areas of discussion will be service trends, safety, employee relations, industry outlooks and business development.

MGMT 2000 Special Topics

Prerequisites: None

VARIABLE 1-3 Credits The student will demonstrate competencies in subjects not covered in other management courses but which are beneficial to students wanting a greater understanding of the functions of management. A specific topic is announced for each offering. May be repeated with a change of topic.

MGMT 2013 Small Business Management

Prerequisites: ENGL 0203, adequate placement score, or by meeting determined placement measures.

3 Credits The student will study general concepts relating to small business ownership, financing, organization, and management. After exploring these concepts, the student will develop a detailed plan for establishing and operating a small business.

MGMT 2023 Introduction to Entrepreneurship

Prerequisites: MATH 0103 or adequate math placement; ENGL 0106 or adequate placement score.

3 Credits This course is designed to help aspiring entrepreneurs in turning innovated ideas into successful businesses. Using proven content, methods, and models for new venture opportunity assessment and analysis, students will learn how to identify and analyze entrepreneurial opportunities. Value propositions, customer segments, strategic alliances, and business modeling are core elements taught in the course. The initial steps to creating a business plan, and raising financial capital to launch the firm, are examined as well.

MGMT 2053 Principles of Management

Prerequisites: ENGL 0203, adequate placement score, or by meeting determined placement measures.

3 Credits This course introduces the fundamental principles of management including the management functions of planning, organizing, leading and controlling. The course includes an overview of theory and history of management as well as an introduction to the various roles of management within an organization.

MGMT 2223 Effective Planning

Prerequisites: MATH 0313 or adequate math placement, MGMT 2053 or by evaluation. Criteria for evaluation is in division office.

3 Credits This course is designed to provide students with an in-depth study of the five planning phases. The student will demonstrate the knowledge and skills to develop, implement and evaluate strategic, tactical, standing, and single use plans. Specific emphasis will be placed on techniques useful in offsetting future uncertainties by the risk associated with decision making.

MGMT 2323 Total Quality Management

Prerequisites: MGMT 2053 or by evaluation. Criteria for evaluation is in division office.

3 Credits This course is designed to introduce the principles of total quality management and to provide the student with a systematic way of applying quality techniques to any type of organization. Emphasis is given to customer focus, process improvement and total involvement. Students will demonstrate their knowledge through the simulation and case study methods.

MGMT 2423 Leadership

Prerequisites: MGMT 2053 or by evaluation. Criteria for evaluation is in division office.

3 Credits This course is designed to introduce students to the process of effective leadership. The student will study various leadership styles and theories and demonstrate acquired knowledge and skills through the use of various techniques, such as role playing, and the analysis of case studies.

MGMT 2453 Management Capstone

Prerequisites: By evaluation

3 Credits The purpose of this course is to provide an application component to the holistic knowledge acquired in the AAS management degree program. The course curriculum is designed to correlate classroom training and work experience. The course requirements can be met by one or a combination of the following activities: case studies, internship, study abroad, research paper or project. This course should be taken during the student's last semester, preferably after all the management courses required by the degree program have been completed.

MGMT 2523 Evaluation and Control Techniques

Prerequisites: MGMT 2053 or by evaluation. Criteria for evaluation is in division office.

3 Credits This course is designed to introduce the student to the process of assuring the effective and efficient accomplishment of desired objectives and goals. The student will study qualitative and quantitative control techniques, and apply these techniques to the evaluation of processes involving human, material, and financial resources. Students will demonstrate acquired knowledge and skills through the use of the simulation and case study methods.

MGMT 2553 Directed Occupational Experience

Prerequisites: ENGL 0203, adequate placement score, or by meeting determined placement measures and must be a second semester student in Business or by evaluation. Criteria for evaluation is in division office.

3 Credits The student will function in a wide variety of positions in a business compatible with his/her occupational choice, which will enable him/her to carry out a series of objectives developed by the student, instructor and supervisor.

MGMT 2623 Statistical Process Control

Prerequisites: BUS 2023 and MGMT 2053 or by evaluation. Criteria for evaluation is in division office.

3 Credits This course is designed to introduce the student to the theories of statistical process control. The student will demonstrate acquired knowledge of control techniques to the analysis of various processes, qualitative and quantitative, to achieve quality improvement.

MGMT 2663 Human Resource Management

Prerequisites: MGMT 2053 or by evaluation. Criteria for evaluation is in division office.

3 Credits The student will apply the principles of management to procurement, development, compensation, integration, and maintenance of personnel.

MGMT 2913 Management Applications

Prerequisites: 12 credit hours of MGMT Coursework or by evaluation. Criteria for evaluation is in division office.

3 Credits Using the case study method, the student will develop a systematic approach to decision making and apply this approach to the identification, evaluation and resolution of selected management problems.

MGMT 2953 Supervisory Training

Prerequisites: ENGL 0203, adequate placement score, or by meeting determined placement measures.

3 Credits The student will use role playing and videotaping exercises to demonstrate the ability to deal effectively with simulated situations in communication, listening, behavior analysis, human sensitivity and group behavior as they are encountered in the supervisory position.

Marketing

MKT 2043 Principles of Marketing

Prerequisites: MATH 0203 or adequate math placement and ENGL 0203, adequate placement score, or by meeting determined measures.

3 Credits The student will discuss the major aspects of each of the portions of the marketing mix (product, price, promotion and distribution), how they function, their interrelationships and the management of each. The student will use accepted techniques and tools in analyzing, evaluating and making decisions in marketing-related cases.

MKT 2163 Effective Selling

Prerequisites: ENGL 0203, adequate placement score, or by meeting determined placement measures.

3 Credits The students will use role playing to demonstrate his/her ability to apply the techniques of effective salesmanship to simulated situations in communications, sales consulting, and the seven steps of effective selling as encountered in a professional salesperson position.

MKT 2253 Consumer Behavior

Prerequisites: ENGL 0203, adequate placement score, or by meeting determined placement measures.

3 Credits After studying the motivational factors that influence the consumer, the student will analyze selected marketing practices. The analytical process will focus on specific techniques to collect market-related data, assess past consumer behavior, identify marketing strategies, and design and evaluate potential marketing activities.

MKT 2343 Advertising

Prerequisites: ENGL 0203, adequate placement score, or by meeting determined placement measures.

3 Credits The student will prepare advertising copy, illustrations and layout and will demonstrate a proficiency in media and research techniques necessary for advertising.

MKT 2453 International Marketing

Prerequisites: ENGL 0203, adequate placement score, or by meeting determined placement measures.

3 Credits The student will study the effects of cultural, technological, political and legal differences upon marketing in an international environment and apply certain principles and concepts to marketing activities conducted on a global basis.

MKT 2553 Marketing Applications

Prerequisites: 12 credit hours of MKT coursework or by evaluation. Criteria for evaluation is in division office.

3 Credits Using the case study method, the student will develop a systematic approach to decision making and apply this approach to the identification, evaluation, and resolution of selected marketing problems.

Mathematics

MATH 0103 College Prep Math I

Prerequisites: Pre/Co-requisite: ENGL 0106 or adequate placement score and Math placement test score or evaluation by advisor.

3 Credits This course provides the conceptual foundation of whole numbers, fractions, decimals, percents, and integers with the purpose of preparing students to perform and apply calculation and solution techniques with these topics in future classes. Students will use manipulatives, number lines, and other concrete examples to model basic mathematical representations and operations. Additionally, the student will apply math study skills throughout this course.

MATH 0203 College Prep Math II

Prerequisites: Pre/Co-requisite: ENGL 0203, adequate placement score, or by meeting determined placement measures.

3 Credits The student will perform basic operations with signed numbers, exponents, and polynomials; solve linear equations, inequalities, and formulas; and plot points and graph lines in the Cartesian coordinate system. Additionally, the student will apply math study skills throughout this course.

MATH 0211 CPM II Workshop

Prerequisites: Invitation to take the course by OCCC based on approved placement test scores; ENGL 0203 College Prep English II or adequate Reading Placement Test score.

1 Credit The student will perform basic operations with signed numbers, exponents, and polynomials; solve linear equations, inequalities, and formulas; and plot points and graph lines in the Cartesian coordinate system. Additionally, the student will apply math study skills throughout this course. This is an Intersession only course with access granted by evaluation criteria being met.

MATH 0313 College Prep Math III

Prerequisites: MATH 0203 College Prep Math II or adequate math placement; Pre/Co-requisite: ENGL 0203, adequate placement score, or by meeting determined placement measures.

3 Credits The student will solve linear equations and inequalities, work with formulas, ratios, and proportions to solve applications, analyze, graph and write equations for linear and quadratic functions, use the rules of exponents, scientific notation, and calculation of square roots, solve equations with the quadratic formula, perform operations and identify factors of polynomials, and solve systems of linear equations by graphical and algebraic methods. Additionally, the student will apply math study skills throughout this course.

MATH 0333 Pilot College Prep Math

Prerequisites: Invitation to take the course by OCCC based on approved placement test scores; ENGL 0203 College Prep English II or adequate Reading Placement Test score.

3 Credits The student will solve linear equations and inequalities, work with formulas, ratios, and proportions to solve applications, analyze, graph and write equations for linear and quadratic functions, use the rules of exponents, scientific notation, and calculation of square roots, solve equations with the quadratic formula, perform operations and identify factors of polynomials, and solve systems of linear equations by graphical and algebraic methods. Additionally, the student will apply math study skills throughout this course.

MATH 0481 Functions and Modeling Companion Lab

Prerequisites: Appropriate placement test score, or minimum ACT (Math) subscore, or high school GPA and mathematics background; ENGL 0203, adequate placement score, or by meeting determined placement measures; Co-requisite: MATH 1483

1 Credit This course is designed for students who intend to enroll in Math 1483 but whose placement indicates a need to spend more time on the topics presented in the course. Topics include those that are in support of the material covered in Math 1483: general understanding and use of polynomial, rational, exponential and logarithmic functions; the ability to solve systems of equations by utilizing matrices and determinants; and, the ability to solve practical problems using algebraic and digital techniques. This is a co-requisite lab course designed with additional support and time for the topics presented in Math 1483.

MATH 0501 Math 0501 Statistics or Contemporary Mathematics Companion Lab

Prerequisites: Math 0203, or appropriate placement test score, or minimum ACT (Math) subscore, or high school GPA and mathematics background; ENGL 0203, adequate placement score, or by meeting determined placement measures; Co-requisite: MATH 2013 OR MATH 1503

1 Credit This course is designed for students who intend to enroll in MATH 2013 or 1503 but whose placement indicates a need to spend more time on the topics presented in those courses. Topics include those that are in support of the material covered in MATH 2013 or 1503: logic, critical appraisal of graphs and tables, use of simple mathematical models, elementary probability theory, concepts of random sampling, testing hypotheses, descriptive measures, chi-square, regression and correlation, and analysis of variance.

MATH 0531 Math 0531 Pre-calculus Companion Lab

Prerequisites: Math 0313, or appropriate placement test score or minimum ACT (Math) subscore, or high school GPA and mathematics background; ENGL 0203, adequate placement score, or by meeting determined placement measures; Co-requisite: MATH 1533

1 Credit This course is designed for students who intend to enroll in Math 1533 but whose placement indicates a need to spend more time on the topics presented in the course. Topics include those that are in support of the material covered in Math 1533 - conic sections, systems of equations (both linear and nonlinear), and a general discussion of functions with emphasis on polynomial, rational, exponential, and logarithmic functions. This is a co-requisite lab course designed with additional support and time for the topics presented in Math 1533.

MATH 1000 Special Topics

Prerequisites: None

VARIABLE 1-4 Credits The student will demonstrate specified competencies in subjects not covered in other courses, but which are beneficial in providing a better understanding of the related program. A specific subject is announced for each offering. Enrollment may be repeated with a change of topic.

MATH 1483 Functions and Modeling

Prerequisites: MATH 0313 or adequate math placement; ENGL 0203, adequate placement score, or by meeting determined placement measures

3 Credits The student will demonstrate: an understanding of the general concepts of relation and function and specifically of polynomial, rational, exponential and logarithmic functions; the ability to solve systems of equations by utilizing matrices and determinants; and, the ability to solve practical problems using algebraic and digital techniques.

MATH 1503 Contemporary Mathematics

Prerequisites: MATH 0313 or adequate math placement. Pre or Co-requisite ENGL 1113 or ENGL 1103

3 Credits A study of the mathematics needed for critical evaluation of quantitative information and arguments (including logic, critical appraisal of graphs and tables); use of simple mathematical models, and an introduction to elementary statistics. This course satisfies the computer proficiency requirement.

MATH 1533 Pre Calculus and Analytic Geometry

Prerequisites: Adequate math placement OR co-enrollment in MATH 0531 and ENGL 0203, adequate placement score, or by meeting determined placement measures

3 Credits This course is intended to serve students for whom Calculus and Analytic Geometry I is a requirement. Topics will include conic sections, systems of equations (both linear and nonlinear), and a general discussion of functions with emphasis on polynomial, rational, exponential, and logarithmic functions.

MATH 1613 Trigonometry

Prerequisites: Pre or Corequisite: MATH 1483 or MATH 1533 or adequate math placement and ENGL 0203, adequate placement score, or by meeting determined placement measures

3 Credits The student will evaluate trigonometric functions and their inverses using both degree and radian measure; graph trigonometric functions and their transformations; identify properties of trigonometric functions; verify and apply trigonometric identities; solve trigonometric equations; solve problems involving right and oblique triangles, vectors, and indirect measurement; and identify and graph polar curves.

MATH 1743 Calculus I for Business, Life Sciences, and Social Sciences

Prerequisites: MATH 1483 or adequate math placement

3 Credits This is the first of a two-semester sequence in elementary calculus in which students use the concepts of differential and integral calculus to solve theoretical and applied problems in business, life sciences, and social sciences.

MATH 2000 Special Topics

Prerequisites: None

Variable 1-4 The student will demonstrate specified competencies in subjects not covered in other courses, but which are beneficial in providing a better understanding of the related program. A specified subject is announced for each offering. Enrollment may be repeated with a change in topic.

MATH 2013 Introduction to Statistics

Prerequisites: MATH 0313 or adequate math placement; ENGL 0203, adequate placement score, or by meeting determined placement measures

3 Credits The student will solve problems applying the concepts of random sampling, elementary probability, testing hypotheses, descriptive measures, chi-square, regression and correlation, and analysis of variance.

MATH 2023 Foundations of Geometry and Measurements

Prerequisites: MATH 0313 or adequate math placement and ENGL 0203, adequate placement score, or by meeting determined placement measures

3 Credits The student will demonstrate an understanding of the basic concepts of geometric shapes, measurement, triangle congruence and similarity, coordinates, and transformations; the ability to think conceptually of mathematics and to apply the concepts learned in real life problem solving situations.

MATH 2104 Calculus and Analytic Geometry I

Prerequisites: MATH 1533 and MATH 1613 or adequate math placement.

4 Credits The student will compute, interpret, and apply the basic concepts of limits, differentiation, and integration to algebraic and transcendental functions and will solve applied problems that include rates of change, optimization, area, and total change in a function. This course satisfies the computer proficiency requirement.

MATH 2123 Calculus II for Business, Life Sciences and Social Sciences

Prerequisites: MATH 1743

3 Credits MATH 2123 is the second of a two-semester sequence in elementary calculus in which students use the concepts of differential and integral calculus to solve theoretical and applied problems in business, life sciences, and social sciences.

MATH 2213 Mathematical Systems

Prerequisites: MATH 0313 or adequate math placement and ENGL 0203, adequate placement score, or by meeting determined placement measures

3 Credits The student will demonstrate an understanding of arithmetic; give a systematic analysis of arithmetical operations as well as intuitive algebra. Topics include the structure of number systems, operations, properties, ordering and number theory beginning with natural numbers and extending through the set of all real numbers.

MATH 2214 Calculus and Analytic Geometry II

Prerequisites: MATH 2104 within the last year.

4 Credits The student will use integration techniques to find antiderivatives, use integrals to solve problems from geometry and physics, use vectors to solve problems in higher dimensions, test infinite series for convergence, approximate functions by using series, solve elementary first-order differential equations, and analyze functions of three variables and their contour plots. This course satisfies the computer proficiency requirement.

MATH 2314 Calculus and Analytic Geometry III

Prerequisites: MATH 2214 within the last year.

4 Credits The student will compute partial derivatives, gradients, differentials, double and triple integrals in rectangular, cylindrical and spherical coordinate systems, curl and divergence of a vector field, and path and surface integrals of vector fields directly and by applying Green's Theorem, Stokes' Theorem and the Divergence Theorem; write parameterizations for lines, curves and surfaces; and solve application problems that include optimization, work and flows of vector fields. This course satisfies the computer proficiency requirement.

MATH 2413 Introduction to Ordinary Differential Equations

Prerequisites: Math 2214 or a minimum of 8 semester hours of calculus.

3 Credits This course will cover methods of solution of ordinary differential equations with applications. Topics will include first order equations, linear equations of higher order, series solutions, Laplace transforms, applications and numerical methods. This course satisfies the computer proficiency requirement.

Music

MU 1000 Special Topics

Prerequisites: ENGL 0106 or adequate placement score

VARIABLE 1-3 Credits The student will demonstrate competencies in subjects not covered in other music courses. Each course will relate to a specific musical skill or area of knowledge and may be repeated with a change in subject matter.

MU 1124 Music Theory I

Prerequisites: ENGL 0203, adequate placement score, or by meeting determined placement measures and MATH 0103 or adequate math placement.

4 Credits This course will develop notational skills in music theory through the study of triad function, beginning harmonic analysis, basic principles of voice leading, connection of SATB triads in root position and inversion, phrase structure, and cadences. The foregoing skills will be demonstrated through the partwriting of bass lines and reinforced through correlated aural and keyboard application exercises.

MU 1131 Concert Choir

Prerequisites: None

1 Credit The student will participate in vocal rehearsals and performances for the college choir. A wide variety of choral literature will be studied and performed including works for a cappella chorus. No audition is required. The course may be repeated.

MU 1141 Individual Instruction

Prerequisites: ENGL 0106 or adequate placement score

1 Credit The student will receive individual instruction in beginning techniques for a musical instrument. Performance in at least one studio recital will be expected. The course may be repeated. Maximum credit at this level for a Music major toward the associate degree is two credit hours.

MU 1151 Group Instruction

Prerequisites: ENGL 0106 or adequate placement score

1 Credit The student will receive group instruction in beginning techniques for a musical instrument. The course may be repeated until the student's skills are proficient enough to enter MU 1241. Maximum credit at this level toward the associate degree for a Music major is two credit hours.

MU 1224 Music Theory II

Prerequisites: MU 1124

4 Credits This course is a continuation of MU 1124 Music Theory I. The student will develop additional skills in music theory through the study of the principles of harmonic progression, harmonization of bass and soprano lines, and the use of non-harmonic tones. Compositional analysis and original composition also will be emphasized. Correlated aural and keyboard application exercises will be an integral part of the course.

MU 1241 Individual Instruction

Prerequisites: MU 1141

1 Credit This course is continuation of MU 1141. Technical skills will be reinforced and built upon. The student will receive individual instruction for a musical instrument. Performance in at least one studio recital will be expected. This course may be repeated. Maximum credit at this level toward the associate degree for a music major is two credit hours.

MU 1251 Group Instruction

Prerequisites: MU 1151

1 Credit This course is continuation of MU 1151. The skills begun in that course will be reinforced and refined through the increased performance of solo and ensemble repertoire. This course may be repeated. Maximum credit at this level toward the associate degree for a Music major is two credit hours.

MU 1331 Chamber Singers

Prerequisites: ENGL 0106 or adequate placement score or by evaluation. § Criteria for evaluation is in division office.

1 Credit Chamber Singers is a musical ensemble of approximately twenty to thirty vocal performers. Membership is by audition only. Students selected for membership participate in all rehearsals and performances of the group and represent Oklahoma City Community College in numerous performances both on and off campus. The course may be repeated.

MU 1341 Symphonic Community Choir

Prerequisites: None

1 Credit This class will be a performing music ensemble. Students will participate in all rehearsals and performances. A wide variety of choral literature will be studied and performed including works for a cappella chorus. No audition is required. The course may be repeated.

MU 2000 Special Topics

Prerequisites: HUM 1113 or MU 1124

1-3 Credits The student will demonstrate competencies not covered in other music courses. Each course will relate to a specific musical skill or area of knowledge and may be repeated with a change in subject matter.

MU 2141 Individual Instruction

Prerequisites: MU 1241

1 Credit This course is a continuation of MU 1241. Objectives will be geared toward the study of challenging repertoire which demonstrates the skills and techniques studied. Performance in at least one studio recital will be expected. This course may be repeated. Maximum credit at this level toward the associate degree for a Music major is two credit hours.

MU 2241 Individual Instruction

Prerequisites: MU 2141

1 Credit This course is a continuation of MU 2141. Objectives will be geared toward the study of challenging repertoire which demonstrates the skills and techniques studied. Performance in at least one studio recital will be expected. This course may be repeated. Maximum credit at this level toward the associate degree for a Music major is two credit hours.

MU 2242 Individual Instruction

Prerequisites: ENGL 0106 or adequate placement score

2 Credits The student will receive individual instruction in more advanced technique and performance. This course is intended for the more advanced students who may or may not be preparing for a degree recital. This course may be repeated.

MU 2314 Music Theory III

Prerequisites: MU 1224

4 Credits This course is a continuation of MU 1224 Music Theory II. The student will study the usage of dominant and non-dominant seventh chords, secondary dominant chords, borrowed chords, and modulation. Harmonization of bass and soprano lines, compositional analysis, and original composition will be emphasized. Correlated aural and keyboard application exercises will be an integral part of the course.

MU 2341 Classical Guitar Ensemble

Prerequisites: ENGL 0106 or adequate placement score

1 Credit Classical Guitar Ensemble is a performing group for students of classical guitar. Study and performance of repertoire specially written and arranged for guitar ensemble will be the primary activity. Students will participate in multiple rehearsals and performances. This course may be repeated.

MU 2414 Music Theory IV

Prerequisites: MU 2314

4 Credits This course is a continuation of MU 2314 Music Theory III. The student will study augmented sixth chords, Neopolitan and altered dominant chords, and modulation with the diminished seventh and major-minor seventh chords. Harmonization of bass and soprano lines, compositional analysis, and original composition will be emphasized. Correlated aural and keyboard application exercises will be an integral part of the course.

Nursing

NUR 1000 Special Topics

Prerequisites: None

VARIABLE 1-4 Credits The student will demonstrate specified competencies in subject areas not covered in other Nursing courses but which are beneficial in providing a better understanding of the field. A specific subject is announced for each offering. Enrollment may be repeated with a change of topic.

NUR 1221 Overview of Nursing

Prerequisites: None

1 Credit This course is designed for students who are considering nursing as a career choice and presents an introduction to nursing as a profession with emphasis on types of nursing programs, historical influences, professionalism, ethics, the nursing process, and current trends and issues affecting nursing. The course also offers information concerning the student's degree plan, time/stress management, and study skills that would be helpful in progressing through an integrated nursing program.

NUR 1415 Nursing Role Transition

Prerequisites: CHEM 1123 and CHEM 1131 OR CHEM 1115, BIO 1023, BIO 1314, BIO 1414, PSY 1113, ENGL 1113. Co-requisites: BIO 2125, ENGL 1213

5 Credits This course is designed to provide an entry point into the Associate Degree in Nursing Program for Oklahoma licensed paramedics and Oklahoma licensed practical nurses who have applied to the nursing program's career ladder pathway. An introduction to the mission, philosophy, and organizing framework of the OCCC Associate Degree Nursing program is included. Emphasis is on assessment, nursing skills and concepts, and selected theory covered the courses NUR 1519 and NUR 1524 and NUR 1525 in the traditional pathway. Course content will be delivered in a blended on campus and online format and will include campus laboratory experiences for the purpose of reviewing and expanding skills in the areas of parenteral therapy, IV therapy, dosage calculation and complex nursing procedures. Active learning, including simulations, will be used to promote clinical reasoning in the campus laboratory and classroom settings.

NUR 1519 Nursing Process I

Prerequisites: Traditional Pathway: Admission to the Nursing Program; CHEM 1123 AND CHEM 1131 OR CHEM 1115, BIO 1023, BIO 1314, PSY 1113, ENGL 1113. Co-requisites BIO 1414, ENGL 1213. Baccalaureate to Associate Degree Nurse Accelerated Pathway (BADNAP): Admission to the Nursing Program; CHEM 1123 AND CHEM 1131 OR CHEM 1115; BIO 1023, BIO 1314, BIO 1414, BIO 2125, PSY 1113, ENGL 1113, ENGL 1213, HIST 1483 or HIST 1493.

9 Credits Nursing Process I introduces the learner to nursing knowledge, including the nursing process, clinical reasoning skills, and the components of safe, quality nursing care. The learner will begin to apply nursing knowledge to meet clients' basic needs and to promote clients' optimal health within complex healthcare systems. Each learner will be expected to accept accountability for personal learning and performance of nursing care which reflects basic understanding and commitment to professional nursing role expectations, including the values, ethics, legalities, and standards for nursing practice.

NUR 1524 Nursing Care of the Childbearing Family

Prerequisites: NUR 1519, BIO 1414, ENG 1213. Co-requisites: BIO 2125, Prerequisites for Baccalaureate to Associate Degree Nurse Accelerated Pathway (BADNAP): NUR 1519

4 Credits NUR 1524 is designed to promote learner development of additional nursing knowledge and skills, including clinical reasoning, while meeting the multi-dimensional needs of clients across the lifespan within complex healthcare systems. NUR 1524 focuses on safe, quality nursing care of the childbearing family. Learners will be expected to use communication competencies, including technological competencies, while participating with the healthcare team to provide client-centered care. Each learner will also be expected to act in accordance with an increasing understanding of personal accountability for compliance with professional role expectations, consistent with the values, ethics, legalities, and standards for nursing practice. NUR 1524 includes theory, campus laboratory and clinical learning experiences. Online learning experiences are integrated components of the course.

NUR 1525 Medical Surgical Nursing II

Prerequisites: NUR 1519, NUR 1524, BIO 1414, ENG 1213. *Co-requisites:* BIO 2125, *Prerequisites for Baccalaureate to Associate Degree Nurse Accelerated Pathway (BADNAP):* NUR 1519, *Co-requisite:* NUR 1524

5 Credits NUR 1525 is designed to promote learner development of additional nursing knowledge and skills, including clinical reasoning, while meeting the multi-dimensional needs of clients across the lifespan within complex healthcare systems. NUR 1525 focuses on safe, quality nursing care of clients with common medical-surgical health alterations. Learners will be expected to use communication competencies, including technological competencies, while participating with the healthcare team to provide client-centered care. Each learner will also be expected to act in accordance with an increasing understanding of personal accountability for compliance with professional role expectations, consistent with the values, ethics, legalities, and standards for nursing practice. NUR 1525 includes theory, campus laboratory and clinical learning experiences. Online learning experiences are integrated components of the course.

NUR 2534 Mental Health Nursing

Prerequisites: NUR 1519, NUR 1524, NUR 1525, BIO 2125, *Co-requisites:* POLSC 1113, *Prerequisites for Baccalaureate to Associate Degree Nurse Accelerated Pathway (BADNAP):* NUR 1519, NUR 1524, NUR 1525, *Co-requisite:* NUR 2535, *Prerequisites for Career Ladder Pathway (CLP) are:* NUR 1415, BIO 2125, ENGL 1213, *co-requisite:* POLSC 1113

4 Credits NUR 2534 is designed for the learner to build upon nursing knowledge, skills, and clinical reasoning abilities acquired in previous nursing courses while meeting the multi-dimensional needs of clients across the lifespan within complex healthcare systems. NUR 2534 focuses on safe, quality nursing care of clients with psychiatric/mental health alterations. Learners will be expected to use communication competencies, including technological and informatics competencies, while functioning with increasing effectiveness as a healthcare team member to provide client-centered care. The course is also designed to assist the learner to apply principles of teaching/learning necessary to meet the more complex needs of assigned clients. Each learner will be expected to act with an increasing level of personal accountability for compliance with professional role expectations to include the values, ethics, legalities, and standards for nursing practice. NUR 2534 includes theory, campus laboratory and clinical learning experiences. Online learning experiences are integrated components of the course.

NUR 2535 Medical-Surgical Nursing III

Prerequisites: NUR 1524, NUR 1525, BIO 2125, *Co-requisites:* POLSC 1113, *Pre-requisite for Baccalaureate to Associate Degree Nurse Accelerated Pathway (BADNAP):* NUR 1524, NUR 1525, *Co-requisite:* NUR 2534, *Prerequisites for Career Ladder Pathway (CLP) are:* NUR 1415, NUR 2534, BIO 2125, ENGL 1213. *Co-requisites:* POLSC 1113

5 Credits NUR 2535 is designed for the learner to build upon nursing knowledge, skills, and clinical reasoning abilities acquired in previous nursing courses while meeting the multi-dimensional needs of clients across the lifespan within complex healthcare systems. NUR 2535 focuses on safe, quality nursing care of clients with more complex medical-surgical health alterations. Learners will be expected to use communication competencies, including technological and informatics competencies, while functioning with increasing effectiveness as a healthcare team member to provide client-centered care. The course is also designed to assist the learner to apply principles of teaching/learning necessary to meet the more complex needs of assigned clients. Each learner will be expected to act with an increasing level of personal accountability for compliance with professional role expectations to include the values, ethics, legalities, and standards for nursing practice. NUR 2535 includes theory, campus laboratory and clinical learning experiences. Online learning experiences are integrated components of the course.

NUR 2549 Nursing Process IV

Prerequisites: NUR 2534, NUR 2535, POLS 1113. *Co-requisites:* HIST 1483 or HIST 1493. *Prerequisites for Baccalaureate to Associate Degree Nurse Accelerated Pathway (BADNAP):* NUR 2534, NUR 2535. *Co-requisite:* POLSC 1113 *Prerequisites for Career Ladder Pathway (CLP):* NUR 2534, NUR 2535, POLSC 1113. *Co-requisites:* HIST 1483 or HIST 1493.

9 Credits Nursing Process IV is designed for the learner to build upon nursing knowledge and skills acquired in previous nursing courses, including higher levels of clinical reasoning abilities. Each learner will independently use the nursing process and clinical reasoning to meet the multi-dimensional needs of a variety of clients, whether individual, family, group, or community. Client-centered care will be provided in settings within complex healthcare systems, including critical care. The learner will use a collaborative approach involving the client, family, significant others, and members of the healthcare team to manage responsibilities for groups of clients. Each learner will be expected to act in accordance with professional role expectations, including the values, ethics, legalities, and standards for entry-level nursing practice.

Occupational Therapy Assistant

OTA 1000 Special Topics

Prerequisites: Satisfied through the health profession application process

VARIABLE 1-4 The student will demonstrate specified competencies in subject areas not covered in other Occupational Therapy courses, but which are beneficial in providing a better understanding of the field. A specific subject is announced for each offering. Enrollment may be repeated with a change of topic

OTA 1112 Application of Leisure Occupation

Prerequisites: Satisfied through the health profession application process

2 Credits Through study, discussion, and classroom/laboratory activities, the student will (1) demonstrate basic skills in techniques, procedures, and activity analysis of selected leisure occupations, (2) identify performance components involved in leisure occupations, (3) select appropriate activities and skills for health maintenance and/or remediation based upon various client factors and contexts, and (4) instruct an individual in a selected activity ensuring proper tool, materials, and safety usage. Level I fieldwork is included in the course.

OTA 1122 Performance in Activities of Daily Living

Prerequisites: OTA 1112; OTA 1123

2 Credits Through study, discussion, and classroom/laboratory activities, the student will demonstrate basic skill in techniques and procedures of activities of daily living and activity analysis. The student will demonstrate knowledge of environmental adaptation for a variety of client factors and contexts in the areas of activities of daily living. Level I fieldwork is included in the course.

OTA 1123 Historical and Contemporary Foundations in Occupational Therapy

Prerequisites: Satisfied through the health profession application process

3 Credits Through study, discussion, and field observation/participation, the student will (1) investigate a career choice in Occupational Therapy (2) gain an appreciation for The Model of Human Occupation (3) develop an understanding of the history and philosophy of Occupational Therapy with major emphases on contemporary roles, practice and functions and (4) investigate the role of the Occupational Therapy Assistant as part of the health care team. Level I fieldwork is included in the course.

OTA 1213 Movement and Therapeutic Interventions

Prerequisites:

3 Credits Through study, discussion, and classroom/laboratory activities, the student will apply assessment and evaluation concepts to human movement. The student will also develop an understanding of the various types of therapeutic interventions utilized in Occupational Therapy. Concepts and considerations in the use of orthotics and modalities are included in the course.

OTA 1223 Human Conditions Impacting Occupation

Prerequisites: Pre or Corequisite: OTA 1112; OTA 1123; BIO 1314; SOC 2143

3 Credits Through study, discussion, and classroom presentation of human conditions, the student will develop an understanding of how each condition by itself, or with others, impacts an individual's daily occupation, family, and/or community. The student will also develop a basic understanding of medical terminology.

OTA 1233 Occupational Performance Birth Through Adolescence

Prerequisites:

3 Credits Through study, discussion, and classroom/laboratory activities, the student will examine the development of sensory motor, cognitive, and psychosocial skills necessary for an individual's occupational performance from birth through adolescence. The student will also acquire and demonstrate Occupational Therapy skills and techniques used in therapeutic intervention for selected deficits impacting occupational performance. Level I fieldwork is included in the course.

OTA 1242 Occupational Therapy Service Skills

Prerequisites:

2 Credits Through study, discussion, and classroom activities, the student will (1) examine and discuss medical and legal aspects of intervention service programs (2) identify various types of medical and institutional records (3) apply skills in data gathering (4) effectively utilize various assessment tools and evaluations for intervention planning (5) demonstrate proper documentation utilizing verbal and written reports.

OTA 1252 Group Dynamics

Prerequisites:

2 Credits Through study, discussion, and classroom/laboratory activities, the student will gain an understanding of group dynamics including the role of a group leader or facilitator. The student will demonstrate proficiency in using methods and materials for planning, organizing, and leading activities for groups of various sizes and ages in a variety of social and clinical/therapeutic situations.

OTA 1263 Occupational Performance Adult Lifespan

Prerequisites:

3 Credits Through study, discussion, and classroom/laboratory activities, the student will examine the occupational performance, personal adaptation, work, leisure, and role changes occurring from early adulthood through the aging process. The student will examine the role of Occupational Therapy in wellness, aging in place, and end of life issues. Level I fieldwork is included in the course.

OTA 2141 Special Topics and Fieldwork

Prerequisites:

1 Credit Through study, discussion, and classroom activities, the student will become familiar with Level II fieldwork expectations, performance evaluations, and the roles of the supervisor/supervisee. The student will also investigate personal topics specific to future Level II fieldwork assignments.

OTA 2143 Professional Development and Support

Prerequisites:

3 Credits Through study, discussion, and classroom activities, the student will develop an understanding and application of concepts in administration, supervision, ethics, licensure, certification, and ongoing professional development in Occupational Therapy. The student will also demonstrate an understanding of the evolution of healthcare in the United States along with the norms and practices of diverse cultures as they relate to the delivery of healthcare services. This course satisfies the computer proficiency requirement.

OTA 2153 Occupational Therapy for Psychosocial Conditions

Prerequisites:

3 Credits Through study, discussion, and classroom/laboratory activities, the student will be able to implement Occupational Therapy intervention plans with individuals impacted by specific psychosocial conditions. Level I fieldwork is included in the course.

OTA 2164 Occupational Therapy for Physical Conditions

Prerequisites:

4 Credits Through study, discussion, and classroom/laboratory activities, the student will be able to implement Occupational Therapy intervention plans with individuals impacted by specific physical conditions. Level I fieldwork is included in the course.

OTA 2253 Fieldwork II A

Prerequisites:

3 Credits The student will successfully complete eight weeks in an approved facility offering supervised Level II fieldwork experiences in the application of learned principles to the delivery of Occupational Therapy services.

OTA 2263 Fieldwork II B

Prerequisites:

3 Credits The student will successfully complete eight weeks in an approved facility offering supervised Level II fieldwork experiences in the application of learned principles to the delivery of Occupational Therapy services. Fieldwork sites are different from Fieldwork II A and are utilized to broaden the student's Level II experiential background.

Philosophy

PHIL 1000 Special Topics

Prerequisites: ENGL 1113

VARIABLE 1-4 Credits The student will demonstrate competencies in subjects not covered in other philosophy courses. Each course will cover a specific topic and may be repeated with a change in content.

PHIL 1013 Introduction to Philosophy

Prerequisites: ENGL 1113

3 Credits After a review of the methods and sub-fields of philosophy, students will describe the positions selected philosophers have taken on several basic problems. Students will also describe and defend their own perspectives on these problems.

PHIL 1123 Critical Thinking

Prerequisites: ENGL 1113

3 Credits Critical Thinking provides opportunities for students to practice skills in both intellectual and personal development. Throughout the course, students will examine cognitive development, sound inductive argument development, biases and fallacies in decision formation, and problem solving skills. Students will apply these aspects of thought formation and critical thinking skills to writing development, goal setting, social analysis, and problem solving. This course satisfies three credit hours of the General Education humanities requirement for all Associates in Arts, Science, and Diversified Studies degrees.

PHIL 1213 Introduction to Ethics

Prerequisites: ENGL 1113

3 Credits Students will demonstrate their understanding of the relationship between philosophy and ethics; the language, concepts and traditions of ethics; and selected theories of ethics. The students will then use descriptive, normative and metathetical approaches to analyze selected contemporary ethical issues.

PHIL 1603 Introduction to Logic

Prerequisites: ENGL 1113

3 Credits Students will recognize genuine arguments in natural language, translate them into appropriate form for logical analysis, and use traditional and modern methods to determine their validity. Students also will recognize and refute various informal fallacies.

PHIL 2000 Special Topics in Philosophy

Prerequisites: ENGL 1113

VARIABLE 1-3 Credits Various sections of this course will treat specific topics not covered in other philosophy courses. Course topics will be chosen to broaden students' understanding of philosophy by addressing philosophical issues that are particularly timely or relevant to societal trends or events. The course may be repeated with a change in content.

PHIL 2133 Comparative Religions

Prerequisites: ENGL 1113

3 Credits This course is a study of the major world religions both ancient and modern. The student will examine and compare historical developments, major historical figures, philosophical tenets and /or belief systems, and sacred texts from various religions. Also, students will evaluate the impact of these elements within a contemporary, global framework. This course satisfies three credit hours of the General Education Humanities requirements for all Associate in Arts, Science, and Diversified Studies degrees.

PHIL 2153 Introduction to Eastern Thought

Prerequisites: ENGL 1113

3 Credits This survey course is designed to introduce the student to the major religious and philosophic systems of the Asian world. After completing the course, the student will be able to accurately describe and discuss the historical development and major concepts of Hinduism, Buddhism (including Zen), Confucianism, and Taoism.

PHIL 2223 Philosophy of Religion

Prerequisites: ENGL 1113

3 Credits This course systematically and critically explores various dimensions of religious experience. Course units may treat questions of defining religion, the existence of deities and the human soul, immortality, determinism and free will, and the classical problem of evil.

PHIL 2343 Philosophy of Science

Prerequisites: ENGL 1113

3 Credits This course will examine philosophical principles underlying the theories and methods of Western science. Course units may include discussion of how science has informed our view of reality, the nature and requirements of scientific explanations, and ways in which ethical considerations direct and constrain scientific research.

Physical Therapist Assistant

PTA 1000 Special Topics

Prerequisites: Satisfied through completion of the health profession application process

VARIABLE 1-4 Credits The student will demonstrate specified competencies in subject areas not covered in other physical therapy courses, but which are beneficial in providing a better understanding of the field. A specific subject is announced for each offering. Enrollment may be repeated with a change of topic.

PTA 1013 Introduction to Physical Therapy

Prerequisites: BIO 1314; Corequisite: PTA 1023, PTA 1213, and BIO 1414

3 Credits The student will describe the development and current status of physical therapy and the role of the PTA in the healthcare system. He/she will be introduced to medical ethics, legislation, and the American Physical Therapy Association and its components. Medical communication and documentation will be discussed and practiced. The student will learn and demonstrate basic range of motion exercises, body mechanics and transfers, basic gait training, and infection control methods. The student will explain the concept of "therapeutic helping."

PTA 1023 Dynamic Human Motion

Prerequisites: BIO 1314; Corequisite: PTA 1013, PTA 1213, BIO 1414

3 Credits The student will be introduced to basic concepts concerning human motion, bony landmarks, muscle location and function, and nerve innervations. The student will learn basic manual muscle testing to assess function and complete an in depth learning module on the use of the goniometer to assess joint motion. The class is divided into five units of instruction: terminology, skeletal and articular system, functional anatomy, goniometry, and manual muscle testing.

PTA 1112 Pathology for Physical Rehabilitation

Prerequisites: PTA 1013, PTA 1023, PTA 1213; Corequisite: PTA 1224, PTA 2014, BIO 2102, PTA 1151

2 Credits The student will identify underlying circumstances and phases of disease and dysfunction, describe primary and secondary disability patterns related to various deficits, gain knowledge of functional activities and techniques to prevent secondary disabilities using special equipment as needed, and identify terms, prefixes, suffixes and abbreviations used in the medical practice.

PTA 1151 Clinical Prep I

Prerequisites: PTA 1013, PTA 1023, PTA 1213, BIO 1314, BIO 1414; Corequisites: PTA 1112, PTA 1224, PTA 2014, BIO 2102

1 Credit The student will explore the characteristics of current physical therapy clinical practice. The student will accurately illustrate the role and responsibilities of the PTA in specific clinical settings represented by facilities appropriate for placement in PTA 1312 Initial Practicum. The student will describe/discuss pertinent regulatory and legislative policies which pertain to said facilities and will convey effective communication and teaching strategies with various patient populations/cultures by means of simulated cases. The student will participate in applying clinical and ethical decision making with a variety of patient scenarios. The student will practice progressing patient interventions based on the physical therapist's established goals and plan of care in simulated scenarios. This comprehensive course will require the student to demonstrate competency and provide adequate rationale for each psychomotor component of all prerequisite coursework including: tests and measures, interventions, and documentation, as well as, application (via demonstration, verbal and/or writing) of safe and effective communication, and clinical decision-making as evidenced by successful completion of a comprehensive skill evaluation prior to entering PTA 1312, Initial Practicum.

PTA 1201 Pediatric Development, Conditions and Treatment

Prerequisites: PTA 1312; Corequisites: PTA 2021, PTA 2024, and PTA 2113

1 Credit The student will be introduced to basic terminology and the theoretical frameworks that guide the study of the human lifespan, specifically birth to adolescence. The student will review the physiological function of different body systems, their interrelationships, and how changes occur over the course of a lifetime, focusing on birth to adolescence. The student will correlate these changes with age appropriate motor, cognitive and social-emotional development, and demonstrate awareness and appropriate therapeutic intervention for specific issues/conditions that impact infants, children and adolescents.

PTA 1211 Geriatric Conditions and Treatment

Prerequisites: PTA 1312; Corequisites: PTA 2021, PTA 2024, and PTA 2113

1 Credit The student will be introduced to basic terminology and the theoretical frameworks that guide the study of the human lifespan, specifically adulthood to senescence. The student will review the physiological function of different body systems, their interrelationships, and how changes occur over the course of a lifetime, focusing on adulthood to senescence. The student will correlate these changes with age appropriate motor, cognitive and social-emotional development, and demonstrate awareness and appropriate therapeutic intervention for specific issues/conditions that impact adults and elders.

PTA 1213 PT Procedures I

Prerequisites: BIO 1314; Corequisite: PTA 1013, PTA 1023, BIO 1414

3 Credits The student will apply therapeutic modalities and have knowledge of pain mechanisms to improve a patient's functional independence. The student will be able to safely and competently demonstrate the use of thermal modalities, ultrasound, traction, continuous passive motion devices, dynamic splinting, and massage to treat a patient's conditions. The students will recognize that all treatments provided by a physical therapist assistant are within the plan of care established by the physical therapist and are performed under the general supervision of a physical therapist in the state of Oklahoma. The student will also learn and apply documentation skills for the above modalities. The student must demonstrate proficiency/competency of above modalities with testing, and oral/practical demonstrations. This course satisfies the computer proficiency requirement.

PTA 1224 Therapeutic Exercise I

Prerequisites: PTA 1013, PTA 1023, PTA 1213; Corequisite PTA 2014, PTA 1112, BIO 2102, PTA 1151

4 Credits The student will apply biomechanical principles of human motion to progress basic exercise programs to complex exercise programs. The student will understand the purposes, indications, and contraindications for exercise. The student will be able to apply the principles of therapeutic exercise to a wide variety of orthopedic conditions, monitor the effectiveness of the exercise, and progress the patient's exercise program within the plan of care established by the physical therapist.

PTA 1312 Initial Practicum

Prerequisites: The student must have completed the following courses with a "C" or better and maintain a Program GPA of 2.5 to participate in the Initial Practicum: PTA 1013, PTA 1023, PTA 1112, PTA 1213, PTA 1224, PTA 2014; BIO 1314, BIO 1414, BIO 2102, PTA 1151 and successfully pass the comprehensive practical exam.

2 Credits The student will be assigned to a selected physical therapy practice for a minimum of 160 contact hours. Under the direct, on-site supervision of a licensed physical therapist or physical therapist assistant, the student will assume patient care responsibilities in a safe, efficient, ethical and legal manner.

PTA 2000 Special Topics

Prerequisites: None

VARIABLE 1-4 credits The student will demonstrate specific competencies in subject areas not covered in other PTA courses that are beneficial in exploring the field more intensely. A specific subject is announced for each offering. Enrollment may be repeated with a change in topic.

PTA 2014 PT Procedures II

Prerequisites: PTA 1013, PTA 1023, PTA 1213, Corequisites: PTA 1112, PTA 1224; BIO 2102, PTA 1151

4 Credits The student will learn how to apply therapeutic modalities within a physical therapist's plan of care, and use knowledge of pain perception to help improve a patient's functional independence. The student will gain knowledge of application and usage of the following modalities/treatment techniques: electrical stimulation, wound healing techniques (including dressings, topical agents, debridement techniques, universal precautions), respiratory treatments (including different coughing techniques, breathing exercises, and postural drainage/chest PT), and edema management (including compression therapies). Students will be able to use critical thinking to implement modality usage as per the physical therapist's plan of care, and document patient response and effectiveness of their treatments. The student must demonstrate proficiency/competency in these modalities through testing and oral/practical demonstrations.

PTA 2021 Clinical Prep II

Prerequisites: PTA 1312; Corequisites: PTA 1202, PTA 2024, PTA 2113

1 Credit The student will continue to explore and appreciate the complexities associated with contemporary physical therapy practice, as well as, the health care system. The student will accurately illustrate the role and responsibilities of the PTA in all physical therapy settings. The student will describe/discuss pertinent regulatory and legislative policies affecting access to and the delivery of physical therapy across all settings. During simulated opportunities, the student will portray effective communication, teaching, and documentation strategies with various patient populations/cultures and health care team members in any physical therapy setting. The student will investigate ethical, socioeconomic and resource challenges common to current physical therapy practice using a variety of patient scenarios. The student will practice participating in identifying and securing appropriate equipment requirements and advocating for patient/client needs to vendor/payers. This comprehensive course will require the student to demonstrate competency and provide adequate rationale for each psychomotor component of all prerequisite coursework including: tests and measures, interventions, and documentation, as well as, application (via demonstration, verbal and/or writing) of safe and effective communication and clinical decision-making for any patient/client as directed by the physical therapist of record and evidenced by successful completion of a comprehensive skill evaluation prior to entering PTA 2034, Practicum I.

PTA 2024 Therapeutic Exercise II

Prerequisites: PTA 1312; Corequisite PTA 1202, PTA 2113, PTA 2021

4 Credits The student will continue to apply biomechanical principles of human motion to progress functional exercise programs. The student will understand the purposes, indications, and contraindications for exercise. The student will be able to apply the principles of therapeutic exercise to a wide variety of neurological, cardiac & various debilitating conditions including ones resulting from trauma and/or amputation; to monitor the effectiveness of the exercise/functional activity and to identify the need to contact the therapist of record due to a change in the patient/client's status. The student will recognize the role of the PTA and will progress the patient's exercise program within the plan of care established by the physical therapist.

PTA 2034 Practicum I

Prerequisites: The student must have completed the following courses with a "C" or better and a Program GPA of 2.5 to participate in the Practicum I: PTA 1312, PTA 1202, PTA 2024, PTA 2113, PTA 2021 and successfully pass the comprehensive practical exam.

4 Credits The student will function in the clinic as a health care team member, under the direct supervision of a physical therapist or physical therapist assistant, carrying out select portions of the physical therapist's plan of care. The student will establish helping relationships; practice effective interpersonal communications; apply ethical and legal principles, identify and provide for normal and threatened basic needs of patients; practice effective infection control techniques; administer selected modalities to prevent secondary disabilities and manage pain; correctly apply principles of biomechanics and physiology in administering exercise, transfer, and gait training. The student will clearly report and document significant observations and treatments orally and in writing.

PTA 2113 PTA Systems/Problems

Prerequisites: PTA 1312; Corequisite: PTA 1202, PTA 2024, PTA 2021

3 Credits This course is designed to provide the student the opportunity to explore and further understand systems and challenges that impact the Physical Therapist Assistant within the context of the physical therapy profession and health care delivery system. The course explores the role of the Physical Therapist Assistant and how s(he) functions as a member of the health care team; systems and operational issues that affect the practice of a Physical Therapist Assistant; and challenges that the Physical Therapist Assistant and all health care professionals face in day to day clinical practice. This course satisfies the computer proficiency requirement.

PTA 2134 Practicum II

Prerequisites: PTA 2034

4 Credits The student will continue to function in the clinic as a health care team member, under the direct supervision of a physical therapist or physical therapist assistant, carrying out select portions of the physical therapist's plan of care. The student will demonstrate competence in all areas described in PTA 2034. The student is expected to function at the level of an entry level physical therapist assistant at the completion of this course.

Physics

PHYS 1011 Physical Science Laboratory

Prerequisites: PHYS 1013

1 Credit This course is designed for students needing laboratory experience to complete their General Education physical sciences requirements. It is not open to science majors or those who have completed a laboratory-based physical science course. Students will measure, record and analyze data; draw relevant conclusions; and make appropriate recommendations about experiments in physical sciences.

PHYS 1013 Physical Science

Prerequisites: ENGL 0203, adequate placement score, or by meeting determined placement measures and MATH 0203 or adequate math placement.

3 Credits Students will develop an appreciation for concepts, methods, and applications of the natural sciences in their everyday lives. Students will be able to demonstrate their familiarity with some of the basic principles of chemistry, physics, geology, astronomy, and other physical sciences by (1) indicating how disciplines can work together in the solution of common problems and (2) utilizing physical science methods in their daily lives, describing physical phenomena and predicting the results of common occurrences.

PHYS 1014 Physical Science

Prerequisites: ENGL 0203, adequate placement score, or by meeting determined placement measures and MATH 0203 or adequate math placement.

4 Credits Students will develop an appreciation for concepts, methods, and applications of the natural sciences in their everyday lives. Students will be able to demonstrate their familiarity with some of the basic principles of chemistry, physics, geology, astronomy, and other physical sciences by (1) indicating how disciplines can work together in the solution of common problems (2) utilizing physical science methods in their daily lives, describing physical phenomena and predicting the results of common occurrences, and (3) demonstrating the ability to utilize scientific methodologies in a laboratory setting.

PHYS 1034 General Geology

Prerequisites: ENGL 0203, adequate placement score, or by meeting determined placement measures and MATH 0203 or adequate math placement.

4 Credits Students will describe theories of the earth's formation, its composition and structure and the processes which change the earth's surface. Laboratory work and field trips are integral parts of the course.

PHYS 1063 Earth Science

Prerequisites: ENGL 0203, adequate placement score, or by meeting determined placement measures and MATH 0203 or adequate math placement.

3 Credits Students will demonstrate their understanding of an overview of the earth sciences. The student will study the areas of astronomy, meteorology, climatology and oceanography, with the major concentration on the study of geologic principles.

PHYS 1064 Earth Science

Prerequisites: ENGL 0203, adequate placement score, or by meeting determined placement measures and MATH 0203 or adequate math placement.

4 Credits Students will demonstrate their understanding of an overview of the earth sciences. The student will study the areas of astronomy, meteorology, climatology and oceanography, with the major concentration on the study of geologic principles. Laboratory work is an integral part of the course.

PHYS 1114 College Physics I

Prerequisites: ENGL 0203, adequate placement score, or by meeting determined placement measures and MATH 1483 or higher or APPM 1223, within the last two years or by evaluation. § Criteria for evaluation is in division office.

4 Credits Students will demonstrate their understanding of useful concepts of kinematics and dynamics, energy and momentum, waves and sound, fluids and thermodynamics by (1) developing numerical and graphical descriptions of physical phenomena, (2) numerically predicting the results of physical occurrences, and (3) applying laboratory skills to analyze real situations. Numerical computations will utilize algebra and basic trigonometry where appropriate.

PHYS 1214 College Physics II

Prerequisites: PHYS 1114

4 Credits This course is a continuation of College Physics I. Students will demonstrate their understanding of concepts of electricity and magnetism, optics, relativity, and atomic and nuclear physics by (1) developing numerical and graphical descriptions of physical phenomena, (2) numerically predicting the results of physical occurrences, and (3) applying laboratory skills to analyze real situations. Numerical computations will utilize algebra and basic trigonometry where appropriate.

PHYS 1314 Technical Physics

Prerequisites: ENGL 0203, adequate placement score, or by meeting determined placement measures and Algebra II in High School or MATH 0313 or adequate math placement or APPM 1223 or the appropriate technical math course.

4 Credits This is a physics course designed primarily for technical career programs. Students will apply the concepts and techniques of physics to solve technical problems in the area of mechanics, fluids, heat, electricity and magnetism. Laboratory analysis is an integral part of the course.

PHYS 1504 General Astronomy

Prerequisites: ENGL 0203, adequate placement score, or by meeting determined placement measures and MATH 0203 or adequate math placement.

4 Credits This course will fulfill the General Education requirement for Physical Science (without laboratory). The student will be introduced to modern astronomy. Concepts to be studied include the solar system, the sun and stars, galaxies, including the Milky Way Galaxy, and current theories of the origin, evolution, and fate of the universe. This course satisfies the computer proficiency requirement.

PHYS 1514 General Astronomy with Lab

Prerequisites: ENGL 0203, adequate placement score, or by meeting determined placement measures and MATH 0203 or adequate math placement.

4 Credits This course will fulfill the general education requirement for Physical Science (with laboratory). The student will be introduced to modern astronomy. Concepts to be studied include the solar system, the sun and stars, galaxies (including the Milky Way Galaxy), and current theories of the origin, evolution, and fate of the universe. Laboratory exercises will explore basic physical principles related to Astronomy as well as activities with specific astronomical applications. This course satisfies the computer proficiency requirement.

PHYS 2014 Engineering Physics I

Prerequisites: MATH 2104 (or at least 4 hours of calculus) within the last year or by evaluation. Prerequisite or Corequisite: MATH 2214

4 Credits This is a physics course designed primarily for pre-engineering, chemistry and physics majors. Students will demonstrate their understanding of concepts in mechanics, heat and sound by (1) developing qualitative and quantitative descriptions of physical phenomena, and (2) predicting the results of physical occurrences based on physics theory and laboratory experiments. Quantitative descriptions and predictions will incorporate methods of calculus where appropriate.

PHYS 2114 Engineering Physics II

Prerequisites: PHYS 2014 and MATH 2214 (or at least 8 hours of calculus) within the last year or by evaluation. Prerequisite or Corequisite: MATH 2314

4 Credits This course is a continuation of Engineering Physics I. Students will demonstrate their understanding of concepts in electricity, magnetism, and light by (1) developing qualitative and quantitative descriptions of physical phenomena, and (2) predicting the results of physical occurrences based on physics theory and laboratory experiments. Quantitative descriptions and predictions will incorporate methods of calculus where appropriate.

PHYS 2223 Modern Physics for Engineers

Prerequisites: PHYS 2114; Prerequisite or Corequisite: MATH 2413

3 Credits Students will demonstrate understanding of essential concepts in 20th century physics. Topics investigated include relativity, quantization, atomic models, quantum mechanics, atomic physics, statistical mechanics, and the current standard model of particle physics. Students solve problems using mathematical methods including ordinary differential equations.

Political Science

POLSC 1000 Special Topics in Political Science

Prerequisites: ENGL 0203, adequate placement score, or by meeting determined placement measures

1-3 Credits The student will demonstrate competencies in subjects not covered in other Political Science courses. Each course will relate to a specific issue and may be repeated with a change in topic.

POLSC 1113 American Federal Government

Prerequisites: ENGL 0203, adequate placement score, or by meeting determined placement measures

3 Credits A study of the principles, structure, processes and functions of the United States federal government.

POLSC 2000 Special Topics in Political Science

Prerequisites: POLSC 1113

1-3 Credits The student will demonstrate competencies in subjects not covered in other POLSC courses. The course may relate to a specific issue, topic, or area of study within the field of political science. The course may be repeated with a change in content.

POLSC 2103 Introduction to Public Administration

Prerequisites: POLSC 1113

3 Credits After surveying the field of public administration, the student will be able to (1) organize a workable administrative hierarchy, (2) construct a hypothetical governmental budget, (3) identify and describe the processes and problems in intergovernmental relations, (4) describe administrative law and procedure, (5) describe personnel policies, and (6) compare various public administrations.

POLSC 2113 Introduction to State and Local Government

Prerequisites: POLSC 1113

3 Credits After studying the political processes in lower level governmental units, the student will be able to identify and describe processes and problems such as intergovernmental relations, fiscal and administrative systems, special urban problems, and legal systems in these governmental units.

POLSC 2123 Introduction to American Politics

Prerequisites: POLSC 1113

3 This course is designed to introduce the student to advanced concepts of politics in America at the federal governmental level. The student will study the foundations, institutions, and processes of American government. The course may cover the United States Constitution, Federalism, Civil Liberties, Civil Rights, Institutions of American Federal Government, and Political Parties. Additionally, the student may be exposed to domestic, economic, and foreign policies. The influence of mass media and current political events will be included as appropriate. The course will build upon concepts covered in POLSC 1113 - American Federal Government and expose the student to a more advanced understanding of American Politics.

POLSC 2213 Contemporary Issues in American Politics

Prerequisites: POLSC 1113

3 Credits This course is a study of significant contemporary political issues emphasizing events occurring at the time the course is offered. After surveying the field of American politics, the student will be able to: 1). critically evaluate some of the controversial issues which presently confront the U.S. and the global community; 2). facilitate intellectual discourse; 3). participate in civil debates; 4). identify a potential problem with a specific public policy and propose a solution to ameliorate it; and 5). construct a research paper and literature review reflecting the critical analysis skills that have been learned throughout the course.

POLSC 2223 Introduction to Law

Prerequisites: POLSC 1113

3 Credits The student will be introduced to legal subjects such as Criminal Law and Procedure, Civil Law and Procedure, Torts, Contracts, Sources of American Law, the Judicial System and the Courts, and Judicial Decision Making and Remedies. The student will learn legal research techniques and apply them in a moot court oral exercise, will learn about legal resources available through the Internet, and will make an observation of an actual case in a court of law. This course heavily relies upon graded, class participation by students.

POLSC 2303 Introduction to International Relations

Prerequisites: POLSC 1113

3 Credits An analysis of the structure of international relations and sources of international influence, conflict, and cooperation.

POLSC 2603 Introduction to Comparative Politics

Prerequisites: POLSC 1113

3 Credits The student will utilize basic theories and methods of comparative analysis in studying selected nation-states. The student will also examine current world-wide political issues and problems. Topics for analysis will include political development, culture, elites, parties and political change.

POLSC 2623 Introduction to Political Theory

Prerequisites: POLSC 1113

3 Credits This course is an introduction to the history of political thought. We will study some of the most significant works in Western political theory. These works raise critical questions about human nature, individual rights, the source of government legitimacy, the conditions for legitimate revolution as well as the meaning of political ideas such as equality, justice, and liberty.

President's Leadership Class

PLC 2122 President's Leadership Class

Prerequisites: MATH 0313 or adequate math placement, ENGL 1113 & 12 hours of 1000 level or above completed with a 3.0 grade point average.

2 Credits The President's Leadership Class (PLC) is designed to develop and enhance leadership skills and knowledge. The course will explore the personal, interpersonal, organizational, and social dimensions in the greater context of leadership. The goal of the course is to develop self-aware, ethical, and principle-centered future leaders with the ability to think critically, apply a proven process for decision-making, and communicate effectively

Prior Learning Assessment

AS Advanced Standing

Prerequisites: None

VARIABLE Credits

PLA Prior Learning Assessment

Prerequisites: None

VARIABLE Credits

Psychology

PSY 1000 Special Topics in Psychology

Prerequisites: ENGL 0203, adequate placement score, or by meeting determined placement measures

VARIABLE 1-3 Credits The student will demonstrate competencies in subjects not covered in other psychology courses. Each course will relate to a specific issue and may be repeated with a change in topic.

PSY 1103 Human Relations

Prerequisites: Co-requisite: ENGL 0203, adequate placement score, or by meeting determined placement measures

3 Credits After exploring specific behavior skills and communication patterns used in the establishment and maintenance of relationships, the student will be able to describe the process of human relating with emphasis on promoting positive results. Several types of relationships will be considered: friendships, family, marriage and work.

PSY 1113 General Psychology

Prerequisites: ENGL 0203, adequate placement score, or by meeting determined placement measures

3 Credits A survey of the major areas of study in psychology such as motivation, learning, physiology, personality, social psychology, abnormal behavior, perception, memory, cognition/thought, and treatment.

PSY 1123 Stress Management

Prerequisites: Co-requisite: ENGL 0203, adequate placement score, or by meeting determined placement measures

3 Credits The student will apply psychological and physiological information to develop a plan for living with stress. A personal profile of stress will be developed and techniques for preventing tension, relaxing the mind and body, and improving self-esteem will be explored.

PSY 1143 Chemical Dependency

Prerequisites: ENGL 0203, adequate placement score, or by meeting determined placement measures

3 Credits Introduction to Chemical Dependency is designed to introduce the dynamics of chemical dependency and the aspects of drug and alcohol dependence and addiction. Family dynamics will be discussed as well as the impact of dysfunctional or imbalanced family systems on individuals and their chemical use. The purpose of this course is to provide basic theoretical concepts and research in the field of chemical dependency.

PSY 1153 Psychology of Aging

Prerequisites: ENGL 0203, adequate placement score, or by meeting determined placement measures

3 Credits The student will use a life-span perspective to describe development in late life, including psychological traits, interpersonal relationships, social roles, and psychological crises of late life.

PSY 2000 Special Topics in Psychology

Prerequisites: ENGL 0203, adequate placement score, or by meeting determined placement measures

VARIABLE 1-3 Credits The student will demonstrate competencies in subjects not covered in other psychology courses. Each course will relate to a specific issue and may be repeated with a change in topic.

PSY 2113 Introduction to Child Development

Prerequisites: ENGL 0203, adequate placement score, or by meeting determined placement measures

3 Credits This course will identify patterns of the physical, intellectual and emotional/psycho-social development of children. The course will recognize the major theories of human development as they apply to children.

PSY 2123 Behavioral Statistics

Prerequisites: PSY 1113 and MATH 0313 or adequate math placement.

3 Credits Behavioral Statistics provides an introduction to descriptive and inferential, parametric and non-parametric statistical techniques used in behavioral research including measures of central tendency, variability, correlation, regression analysis, hypothesis testing, t-tests, Chi square, and ANOVA. Students finishing this course will be able to use computers for statistical analyses and will be prepared for advanced laboratory classes.

PSY 2163 Death, Dying, and Grief

Prerequisites: ENGL 0203, adequate placement score, or by meeting determined placement measures

3 Credits Students will demonstrate an understanding of death, dying, and grief from three perspectives: The medical and legal perspective in American society; the human perspective, including how people die, caregiving, suicide, and funeral rituals; and the perspective of death related to other losses, including grief and coping strategies.

PSY 2193 Personality Theories

Prerequisites: PSY 1113

3 Credits This course examines personality processes and the various theoretical approaches to the study of personality such as psychodynamic, behavioral, phenomenological, trait, and social learning theories.

PSY 2213 Child and Family in Society

Prerequisites: ENGL 0203, adequate placement score, or by meeting determined placement measures

3 Credits This course emphasizes promoting optimum development and support of families and children within various settings and the larger community.

PSY 2233 Ethics in Health and Human Services

Prerequisites: ENGL 0203, adequate placement score, or by meeting determined placement measures

3 Credits Students will contrast ethical systems with religion, law, and justice; define ethical principles, and discuss ethical issues and professional conduct in health and human services. Students will apply ethical principles and decision-making models to analyze case studies.

PSY 2403 Developmental Psychology

Prerequisites: PSY 1113

3 Credits A theoretical and research-based course that covers social, emotional, physical and cognitive aspects of human development throughout the life-span.

PSY 2503 Human Sexuality

Prerequisites: PSY 1113 OR CD 2113

3 Credits This course is an introductory overview of the field of human sexuality. It will explore the psychological, physiological, and sociocultural aspects of human sexual behavior. Emphasis will be placed on the cultural and biological diversity of sexual expression.

PSY 2603 Psychology of Women

Prerequisites: ENGL 0203, adequate placement score, or by meeting determined placement measures

3 Credits This course examines the issues, theories, and research related to female development and the factors influencing that development from social science, historical, and biographical perspectives. Students will discuss research on sex roles, how gender is represented by media and language in our culture, and contemporary women's issues related to mental health, relationships, education, work, and family.

PSY 2743 Social Psychology

Prerequisites: PSY 1113

3 Credits This course will cover topics such as conformity, social influence, social cognition, prosocial behavior, prejudice, group processes, interpersonal attraction and social comparison.

Respiratory Care Therapist

RC 1132 Introduction to Respiratory Care

Prerequisites: ENGL 0106 or adequate placement score

2 Credits This is a course designed as an introduction to the occupation of respiratory care. The course focus is the profession of respiratory care and the operation of respiratory care departments and health care organizations. Theory covered in the course includes the operation of respiratory care departments, staff positions and their responsibility, regulations and policy that affect the practice of respiratory care. Professional communication, patient education and safe behavior in the healthcare environment are also included in this course.

RC 1343 Cardiopulmonary Anatomy and Physiology

Prerequisites: Read/Writing competency satisfied by prerequisite course. Prerequisite: BIO 1314, BIO 1414

3 Credits This course is an in-depth study of the structure and function of the respiratory and cardiac systems intended for individuals interested in a career in Respiratory Care. It will include study of the processes involved in the transport of oxygen and carbon dioxide between the lung and tissue to include ventilation, diffusion and gas transport. Students will learn about clinical assessment tests and calculations utilized to assess lung and cardiac function, including normal values and interpretation of abnormal results. This course is a foundation for learning how to assess normal function and efficiency of the cardiopulmonary systems as well as the understanding of disease processes.

RC 2114 Basic Respiratory Therapy Procedures

Prerequisites: Read/Writing competency satisfied by prerequisite course. Prerequisite: Admission to program; RC 1133; MATH 1503 or MATH 1483; and ENGL 1113

4 Credits This course is designed for the beginning Respiratory Care Practitioner student. The course focus will be the theory and performance of basic respiratory care therapeutics. Included in this course are laboratory demonstrations and practice to prepare the student to be proficient in application of theory, performance of basic respiratory care skills and troubleshooting. The student will be required to satisfactorily perform skill evaluations in a laboratory setting. The skills and theory covered include: basic physical assessment with vital signs, bulk oxygen systems, cylinders, regulators, flow-meters, blenders, compressors, concentrators, breathing techniques, sustained maximal inspiration, oxygen therapy, oxygen therapy equipment and analyzation, postural drainage, percussive therapies, positive expiratory therapies, basic pharmacology, blood gas sampling and analysis, aerosol medication therapies, electrocardiograms and manual resuscitators.

RC 2124 Critical Care Respiratory Therapy

Prerequisites: Read/Writing competency satisfied by prerequisite course. Prerequisite: RC 2314 Advanced Respiratory Therapy Procedures

4 Credits This course prepares the student for management of the Critical Care Pulmonary Patient. Emphasis is placed on developing patient care plans for overall management of the critically ill patient, application of advanced ventilation modes, techniques for liberation from the ventilator, interpretation of ventilator waveforms, hemodynamic monitoring methods and management, evaluation of fluid balance and electrolytes. The student will demonstrate proficiency in treating respiratory emergencies, and practice a variety of advanced patient assessments including modification of treatment plans and/or assisting the physician. Students will demonstrate proficiency with laboratory skills and clinical patient scenario simulation.

RC 2222 Respiratory Therapy Pathology and Pharmacology

Prerequisites: Read/Writing competency satisfied by prerequisite course. Prerequisite: RC 1342 Cardiopulmonary Anatomy and Physiology

2 Credits This course is a study of diseases common to patients requiring respiratory therapy and/or intensive care. Study of each disease will include: epidemiology, etiology, pathophysiology, signs and symptoms, diagnosis, treatment and prognosis. In conjunction with the study of diseases will be the study of pharmacologic agents typically administered by respiratory therapists as well as medications that are critically important to the overall patient care plan. Study of pharmacological agents will include basic principles of pharmacology and drug administration safety along with specific information about the most important and commonly used respiratory related drugs. Upon completion of this course the student will be able to identify a disease process from key patient information and formulate an appropriate treatment plan including pharmacological agents.

RC 2314 Advanced Respiratory Therapy Procedures

Prerequisites: Read/Writing competency satisfied by prerequisite course. Prerequisite: RC 2114 Basic Respiratory Therapy Procedures

4 Credits This course is designed for the Respiratory Care Practitioner student that has successfully completed the Basic Respiratory Therapy Procedures course. The course focus will be the theory and performance of advanced respiratory care therapeutics to prepare the student for initial adult critical care practice. The student will be required to satisfactorily perform skill evaluations and troubleshooting in a laboratory setting. The skills and theory covered include: blood gas evaluation, positive airway pressure therapies, airway management techniques, oral and nasal airways, intubation, extubation, suctioning, tracheostomy care, tracheal tube management, specialty emergency airways, basic ventilator function and application, bi-level positive airway pressure and non-invasive positive airway pressure therapies, initiation of continuous ventilator life support devices, continuous ventilator patient management techniques and weaning from life support devices.

RC 2322 Diagnostics and Outpatient Services

Prerequisites: Read/Writing competency satisfied by prerequisite course. Prerequisite: RC 1342 Cardiopulmonary Anatomy and Physiology

2 Credits The course focus is cardiovascular and pulmonary diagnostic testing, homecare, discharge planning and pulmonary rehabilitation. Included in the course are laboratory demonstrations and practice as it relates to pulmonary functions testing, assisting with bronchoscopy and oxygen therapy in the home setting. The student will be required to satisfactorily perform skill evaluations in the laboratory setting for pulmonary function testing. In addition, theory covered in the course includes: diagnostic testing for the cardiac patient, diagnostic testing for sleep apnea, electroencephalogram (EEG), exercise testing, pulmonary rehabilitation, homecare and discharge planning.

RC 2352 Pediatric and Neonatal Respiratory Care

Prerequisites: Read/Writing competency satisfied by prerequisite course. Prerequisite: RC 2114 Basic Respiratory Therapy Procedures

2 Credits This course is designed to discuss the various aspects of respiratory care which are unique to the neonatal and pediatric patient. This includes development of the fetus, evaluation and stabilization of high-risk newborns, pediatric respiratory therapeutics, advanced life support, the study of pediatric diseases with cardiopulmonary implications and appropriate therapeutic interventions. Mechanical ventilation of the newborn, specialty gas administration, high frequency ventilation, and extracorporeal membrane oxygenation (ECMO) are also covered. Students will complete the Neonatal Resuscitation Program and participate in laboratory practice and evaluations utilizing human patient simulators.

RC 2364 Clinical Application of Respiratory Therapeutics I

Prerequisites: Read/Writing competency satisfied by prerequisite course. Prerequisite: RC 1133; admission to program; Co-requisite: RC 2114

4 Credits This course is designed for the beginning Respiratory Care Practitioner student. The course focus is clinical observation, assistance and performance of Respiratory Therapeutics which were taught in the Basic Respiratory Therapy Procedures and Advanced Respiratory Therapy Procedures courses and Labs. The student will demonstrate clinical proficiency of the following respiratory therapeutics: physical assessment, oxygen therapy, aerosol medication administration, chest physiotherapy techniques, isolation techniques, tracheal suctioning, tracheal airway care, arterial blood gas sampling, positive pressure therapies, pulse oximetry, noninvasive ventilation techniques, basic life support systems, and continuous ventilation of the adult patient. The student will be supervised in the affiliate Respiratory Care Departments by the adjunct faculty and program faculty.

RC 2524 Respiratory Care Advanced Practice

Prerequisites: Read/Writing competency satisfied by prerequisite course. RC 2314 Advanced Respiratory Therapy Care Procedures

4 Credits This is the final respiratory theory class for respiratory care students approaching graduation. It is intended to allow practice and demonstration of integration of acquired skills and knowledge at the advanced practitioner level. Students will utilize current standards of evidence based medicine to manage patients in complex patient care scenarios. This will reinforce the skills of appropriate, thorough patient assessment followed by the use of protocols to formulate an effective patient care plan and analyze patient response. Students will also participate in a structured self-assessment and review plan in preparation for their credentialing examinations. This will include theory review, quizzes and multiple practice examinations.

RC 2534 Clinical Application of Respiratory Therapeutics II

Prerequisites: Read/Writing competency satisfied by prerequisite course. Prerequisite: RC 2364 Clinical Application of Respiratory Therapeutics I

4 Credits This course is designed for the Respiratory Care Practitioner student. The course focus is clinical observation, assistance and performance of Respiratory Therapeutics which were taught in Diagnostics & Out-Patient Services, Pediatric & Neonatal Respiratory Care, and the Critical Care Respiratory Therapy courses and Labs. The student will demonstrate clinical proficiency of the following respiratory therapeutics: physical assessment, simple spirometry, oxygen therapy, aerosol medication administration, tracheal suctioning, tracheal airway care, tracheal extubation, blood gas sampling, ventilatory assessment, noninvasive ventilation techniques, ventilation of the ped-neonate patient and continuous ventilation of the adult patient. The student will be supervised in the affiliate Respiratory Care Departments by the adjunct faculty and program faculty.

Sociology

SOC 1000 Special Topics in Sociology

Prerequisites: ENGL 0203, adequate placement score, or by meeting determined placement measures

VARIABLE 1-3 Credits The student will demonstrate competencies in subjects not covered in other sociology courses. Each course will relate to a specific issue and may be repeated with a change in topic.

SOC 1113 Introduction to Sociology

Prerequisites: ENGL 0203, adequate placement score, or by meeting determined placement measures

3 Credits The student will identify the sociological dimensions of human behavior by analyzing the concepts of society, culture, socialization, institutions, social stratification and social change.

SOC 1143 Chemical Dependency

Prerequisites: ENGL 0203, adequate placement score, or by meeting determined placement measures

3 Credits Introduction to Chemical Dependency is designed to introduce the dynamics of chemical dependency and the aspects of drug and alcohol dependence and addiction. Family dynamics will be discussed as well as the impact of dysfunctional or imbalanced family systems on individuals and their chemical use. The purpose of this course is to provide basic theoretical concepts and research in the field of chemical dependency.

SOC 1203 Introduction to The Criminal Process

Prerequisites: ENGL 0203, adequate placement score, or by meeting determined placement measures

3 Credits This course includes a comprehensive and multidisciplinary view of the operational components in the criminal justice system, focusing on the social and political forces which influence the setting of criminal justice policy. The student will analyze the system at the macro level to show the interdependence in actions of law enforcement, adjudication and correction, and at the micro level to determine how exchange relationships between individuals and groups act as keys to the determination of system outcomes.

SOC 2000 Special Topics in Sociology

Prerequisites: SOC 1113 or by evaluation. § Criteria for evaluation is in division office.

1-3 Credits The student will demonstrate competencies in subjects not covered in other SOC courses. The course may relate to a specific issue, topic, or area of study within the field of sociology. The course may be repeated with a change in content.

SOC 2013 Sociology of the Family

Prerequisites: ENGL 0203, adequate placement score, or by meeting determined placement measures

3 Credits This course examines the family as a social institution. Students will study the cultural and structural forces that shape family life and explore changes in areas including role expectations, work patterns, courtship, marriage, divorce, and cohabitation over time. Gender, race, ethnicity, and class differences will also be addressed.

SOC 2023 Social Problems

Prerequisites: SOC 1113

3 Credits The student will use the sociological perspective to analyze and show the interrelationships among biological, psychological and social aspects of human problems.

SOC 2063 Crime and Delinquency

Prerequisites: ENGL 0203, adequate placement score, or by meeting determined placement measures

3 Credits Using historical and contemporary theory, students will explore the sociological and psychological dimensions involved in the commission of criminal acts. National and international differences in crime rates across the major categories of crime and the effectiveness of sanctions will be analyzed.

SOC 2123 Sociology of Aging

Prerequisites: ENGL 0203, adequate placement score, or by meeting determined placement measures

3 Credits The student will use information from a survey of social processes, theories of aging, and problems affecting the elderly to assess the status of the aged and analyze the impact of demographic trends.

SOC 2143 Race and Ethnicity in the U.S.

Prerequisites: ENGL 0203, adequate placement score, or by meeting determined placement measures

3 Credits This course examines sociological theories of contact between minority and majority groups in a multicultural society, including topics such as prejudice, discrimination, acculturation, and pluralism.

SOC 2163 Death, Dying, and Grief

Prerequisites: ENGL 0203, adequate placement score, or by meeting determined placement measures

3 Credits Students will demonstrate and understanding of death, dying, and grief from three perspectives: The medical and legal perspective in American society; the human perspective, including how people die, caregiving, suicide, and funeral rituals; and the perspective of death related to other losses, including grief and coping strategies.

SOC 2173 Sociology of Religion

Prerequisites: ENGL 0203, adequate placement score, or by meeting determined placement measures

3Credits Credits This course will examine religion from the three sociological perspectives (structural-functionalism, conflict theory, and symbolic interactionism), including the study of practices, social structures, historical backgrounds, development, universal themes, and the roles of religion in society. It will examine the functions religion serves in societies, the distinction between magic and religion, and the relationship between religion and other major social institutions such as the economy and politics.

SOC 2213 Cultural Anthropology

Prerequisites: ENGL 0203, adequate placement score, or by meeting determined placement measures

3 Credits Students will learn and apply the theories and methods of anthropology to the identification of similarities and differences in human behavior across a variety of cultural groups. This course includes a field research component.

SOC 2243 Ethics in Health and Human Services

Prerequisites: ENGL 0203, adequate placement score, or by meeting determined placement measures

3 Credits Students will contrast ethical systems with religion, law and justice; define ethical principles, and discuss ethical issues and professional conduct in health and human services. Students will apply ethical principles and decision-making models to analyze case studies.

SOC 2313 Introduction to Social Work

Prerequisites: ENGL 0203, adequate placement score, or by meeting determined placement measures

3 Credits This course will introduce students to the profession of social work, including the historical background of the profession, the purposes of social work, the values and ethics of social work, and the scope and methods used in social work.

SOC 2913 Social Inequality

Prerequisites: SOC 1113

3 Credits This course is a study of social inequality and its causes and consequences for individuals and society. Emphasis is on the class structure of the United States. Topics include upper, middle, and working classes, poverty, and gender and racial/ethnic stratification.

Spanish

SPAN 1115 Elementary Spanish I

Prerequisites: ENGL 0203, adequate placement score, or by meeting determined placement measures

5 Credits The beginning student will learn essential vocabulary and grammar and will develop basic novice proficiency in understanding, speaking, reading, and writing. The student will explore significant cultural aspects of the Spanish-speaking world.

SPAN 1225 Elementary Spanish II

Prerequisites: SPAN 1115

5 Credits A continuation of SPAN 1115. The student will acquire more complex vocabulary and grammar and will develop novice mid-to-high proficiency in understanding, speaking, reading, and writing. The student will continue to explore cultural aspects of the Spanish-speaking world.

SPAN 2000 Special Topics in Spanish

Prerequisites: SPAN 1225

VARIABLE 1-6 Credits The intermediate student will explore designated aspects of language and/or culture. May be repeated with a change in subject matter.

SPAN 2113 Intermediate Spanish I

Prerequisites: SPAN 1225

3 Credits The student will develop language proficiency to the intermediate low-to-mid level and will increase knowledge of the cultures and cultural practices of Spain and Latin America. Multimedia course materials--including text, audio, and video--are used as the basis for comprehension and communication.

SPAN 2223 Intermediate Spanish II

Prerequisites: SPAN 2113

3 Credits A continuation of SPAN 2113. The student will develop language proficiency to the intermediate mid-to-high level and will advance in understanding of the cultures and cultural practices of Spain and Latin America. Multimedia course materials--including text, audio, and video--are used as the basis for comprehension and communication.

Speech-Language Pathology Assistant

SLPA 1000 Special Topics

Prerequisites:

1-4 Credits The student will demonstrate specified competencies in subject areas not covered in other speech-language pathology assistant courses, but which are beneficial in providing a better understanding of the field. A specific subject is announced for each offering. Enrollment may be repeated with a change of topic.

SLPA 1013 Foundations of Speech-Language

Prerequisites: Satisfied through completion of the health profession application process

3 Credits Through study, online discussion and participation, the student will examine the evolution and acquisition of language from a social/interactional perspective. The course will focus on the acquisition of speech and language by children and adults, including the development of phonological, semantic, syntactic, and pragmatic aspects of linguistic competence. Students in this class will also explore changes that can occur during the life-span, as well as diversities of accent and dialect. This course satisfies the computer proficiency requirement.

SLPA 1023 Phonetics

Prerequisites: SLPA 1063

3 Credits Through study, online discussion and participation, the student will explore phonetics, the scientific study of speech. Students will be introduced to the International Phonetic Alphabet and develop skills in the recognition, production and transcription of the sounds of the world's languages. The course will train students to produce detailed phonetic transcriptions of American English. The student will also explore aspects of phonology. Finally, regional varieties of English and delays/disorders of the speech mechanism will be explored. This course satisfies the computer proficiency requirement.

SLPA 1033 Professional Issues for Speech-Language Pathology Assistants

Prerequisites: Satisfied through completion of the health profession application process

3 Credits Through study, online discussion and participation, the student will understand and demonstrate the application of concepts of professional ethics and issues, review regulations and requirements for professional practice for speech-language pathology assistants, and discuss cultural considerations for studying and treating communication sciences and disorders. This course satisfies the computer proficiency requirement.

SLPA 1043 Introduction to Speech Sound Disorders

Prerequisites: SLPA 1013, SLPA 1023

3 Credits Through study, online discussion and participation, the student will understand and demonstrate concepts related to disorders of the articulatory and phonological aspects of communication. The course will provide foundational information in phonetics, phonology, and language development, and allow the student opportunities to gain understanding and knowledge of the principles used in the treatment of articulation disorders.

SLPA 1053 Language Disorders in the Exceptional Child

Prerequisites: SLPA 1013, SLPA 1033

3 Credits Through study, online discussion and participation, the student will develop an understanding of the remediation of language disorders in children and adults who demonstrate exceptionalities. The course will provide emphasis on aspects of normal language development and communication, language disorders, and language intervention. Populations that will be explored in this class include, but are not limited to toddlers and preschoolers, children with learning disabilities, adolescents with language impairment, children with Down syndrome, children with auditory impairments, and children with Autism. Along with language development this course will examine language differences and language disorders in persons from culturally and linguistically diverse backgrounds. This course satisfies the computer proficiency requirement.

SLPA 1063 Anatomy and Physiology of the Speech and Hearing Mechanism

Prerequisites: SLPA 1013

3 Credits Through study, online discussion and participation, the student will consider specific theory and mechanisms directly related to the speech and hearing mechanism. Students in this class will explore concepts related to the study of the anatomy and physiology of the speech and hearing mechanisms including; terminology, structure and function of the skeletal frameworks for respiration, phonation, articulation, swallowing, and hearing. Finally, students will be introduced to concepts of neuroanatomy and neurophysiology which are related and interdependent to speech and language processing and production. This course satisfies the computer proficiency requirement.

SLPA 1073 School Issues for the Speech-Language Pathology Assistant

Prerequisites: SLPA 1043, SLPA 1053

3 Credits Through study, online discussion and participation, the student will demonstrate an understanding of issues and concepts specific to SLPAs in the public school. Topics of interest for this class include specific target populations, record keeping, billing, Individual Educational Programs (IEP), time management and scheduling, and roles and responsibilities. This course satisfies the computer proficiency requirement.

SLPA 1083 Instructional Procedures in Communication Disorders

Prerequisites: SLPA 1043, SLPA 1053

3 Credits Through study, online discussion and participation, the student will understand and demonstrate hands-on core skills related to clinical and teaching skills development in the practice of speech-language pathology. When you have completed this course you should be able to apply fundamental therapeutic procedures to speech-language pathology treatment sessions. This course satisfies the computer proficiency requirement.

SLPA 2000 Special Topics

Prerequisites:

1-4 Credits The student will demonstrate specified competencies in subject areas not covered in other speech-language pathology assistant courses, but which are beneficial in providing a better understanding of the field. A specific subject is announced for each offering. Enrollment may be repeated with a change of topic

SLPA 2013 Medical Issues for the Speech-Language Pathology Assistant

Prerequisites: SLPA 2043

3 Credits Through study, online discussion and participation, the student will demonstrate an understanding of issues and concepts specific to SLPAs in medical settings. Students will understand and demonstrate conceptual knowledge of dysphagia as well as implications and strategies of dysphagia management. Additional topics of interest for this class include medical terminology, specific target populations, record keeping, charting, billing, time management, scheduling, roles and responsibilities, outcome measures, ethics specific to healthcare settings, and end of life feeding issues. This course satisfies the computer proficiency requirement.

SLPA 2023 Autism

Prerequisites: SLPA 1083

3 Credits Through study, online discussion and participation, the student will become familiar with current theories and scientific evidence on the nature and etiology of autism. Best practices in the treatment of Autism Spectrum Disorders (ASD) will be examined. Additionally, students will become familiar with inclusive practices, family concerns, multicultural issues, and community resources as they impact the lives of children and adults with ASD. This course satisfies the computer proficiency requirement.

SLPA 2033 Clinical Experience I

Prerequisites: SLPA 1073, SLPA 1083

3 Credits Through clinical site participation, the student will engage in supervised clinical training in the provision of speech and language services for children and adults. Clinical content for this course will include guided practice in the management and treatment of speech and language delays and disorders across the lifespan. Students will be supervised by licensed SLPs approved or trained by OCCC. Placements for Clinical Experience I will be made near the student's residence.

SLPA 2043 Adult Neurogenic Communication Disorders and Treatment

Prerequisites: SLPA 1013, SLPA 1033, SLPA 1063

3 Credits Through study, online discussion and participation, the student will examine adult neurogenic communication disorders and treatment for use by speech-language pathology assistants in medical settings. Students will identify and define terminology and concepts of neuroanatomy and neurophysiology which are related and interdependent to speech and language processing and production. This course also examines aphasia, apraxia of speech, and the dysarthrias typically seen in adults. Cognitive disorders, as seen in traumatic brain injuries (TBI), as well as adult dysphagia issues will be discussed. This course satisfies the computer proficiency requirement.

SLPA 2053 Augmentative Communication

Prerequisites: SLPA 2023

3 Credits Through study, online discussion and participation, the student will demonstrate understanding and knowledge of concepts, strategies, techniques, and issues surrounding augmentative and alternative communication (AAC). AAC strategies for use with children and adults will be a focus of this class. Hands-on experience with various methods of AAC strategies and devices will provide students with a foundation for therapies utilizing AAC principles for children and adult populations. This course satisfies the computer proficiency requirement.

SLPA 2063 Clinical Experience II

Prerequisites: SLPA 2033

3 Credits Through clinical site participation, the student will engage in supervised clinical training in the provision of speech and language services for children and adults. Clinical content for this course will include guided practice in the management and treatment of speech and language delays and disorders across the lifespan. Students will be supervised by licensed SLPs approved or trained by OCCC. Placements for Clinical Experience II will be made near the student's residence.

SLPA 2083 Clinical Experience Fieldwork

Prerequisites:

1-4 Credits Through clinical site participation, the student will engage in supervised clinical training in the provision of speech and language services for children and/or adults. Clinical content for this course will include guided practice in the management and treatment of speech and language delays and disorders across the lifespan. Students will be supervised by licensed speech-language pathologists approved or trained by OCCC. Clinical experience fieldwork assignments will be made near the student's residence.

Success in College and Life

SCL 1001 Success in College and Life

Prerequisites: ENGL 0106 or adequate reading/writing assessment scores

1 Credit Students will learn best practices for academic, career, and personal success. Students will discover their individual strengths, interests, and values to create a personalized plan; select and utilize resources that are applicable to their growth and success; and engage as active and responsible members of the academic community. This course should be taken during a student's first semester of college work at Oklahoma City Community College and is a required course in degree plans to satisfy the Life Skills requirement.

SCL 1003 Success in College and Life

Prerequisites: ENGL 0106, or adequate reading/writing assessment scores

3 Credits Students will learn best practices for academic, career, and personal success. Students will discover their individual strengths, interests, and values to create a personalized plan; select and utilize resources that are applicable to their growth and success; and engage as active and responsible members of the academic community. In this enhanced three credit hour version, students will benefit from more in-depth coverage and practice in course outcomes. This course should be taken during a student's first semester of college work at Oklahoma City Community College and will satisfy the Life Skills requirement in the same manner as the one credit hour course.

Theatre Arts

TA 1000 Special Topics

Prerequisites: ENGL 0203, adequate placement score, or by meeting determined placement measures

VARIABLE 1-3 Credits The student will demonstrate competencies in subjects not covered in other theatre arts courses. Each course will cover a specific topic and may be repeated with a change in content.

TA 1103 Introduction to Theatre

Prerequisites: ENGL 0203, adequate placement score, or by meeting determined placement measures

3 Credits After an introduction to the basics of theatre-theatre history and literature, acting, directing, design, stagecraft, and the chain of responsibility from the playwright to the staff of the final production-the student will demonstrate understanding of the elements of theatre and their relevance to human experience.

TA 1121 Production Workshop

Prerequisites: None

1 Credit The student will prepare for, rehearse for, and perform in situations related to theatre arts, especially in productions of the scheduled season and other selected activities of a theatrical nature. The importance of effective completion of assigned responsibilities and working within a unit with all members of the production will be stressed. Course may be repeated.

TA 1133 Voice and Speech Improvement

Prerequisites: ENGL 0203, adequate placement score, or by meeting determined placement measures

3 Credits The student will state in writing and/or orally his or her understanding of the physiological elements of the voice. The student will use the International Phonetic Alphabet by transcribing the oral word phonetically. After participating in exercises to improve vocal control, the student will demonstrate improved enunciation and pronunciation.

TA 1223 Make Up for The Stage

Prerequisites: NONE

3 Credits The student will apply the principles, theory and psychology of theatrical make-up, including proper skin care; identification of types of make-up available; application of straight, corrective and old age make-up; and the construction and use of prosthetics and hair pieces.

TA 1513 Acting I

Prerequisites: NONE

3 Credits Through writing and performance activities, the student will demonstrate knowledge relating to the training of the voice, mind and body for stage acting.

TA 2000 Special Topics in Theatre Arts

Prerequisites: NONE

3 Credits Through writing and performance activities, the student will demonstrate knowledge relating to the training of the voice, mind and body for stage acting.

TA 2113 Stagecraft

Prerequisites: TA 1103

3 Credits This course will serve as an introduction to the principles of constructing, rigging, and assembling modern stage scenery and equipment. In addition, the course will serve as a general introduction to technical theatre concepts, technologies, and techniques. Students will gain a basic working knowledge of technical theatre through practical hands-on experience.

TA 2123 Practicum in Theatre Arts

Prerequisites: NONE

3 Credits The student will gain practical experience in a specific aspect of the theatre by working with a professional or semi-professional company either as an actor or as part of the production team. Performance will be judged by the professional with whom he or she works. Practicum may include work in the College's theatrical productions as well as off-campus work.

TA 2203 Acting II

Prerequisites: TA 1513

3 Credits Through intensive study, analysis, and performance of scenes from selected plays, the student will develop skills emphasizing the development of character and actor interaction.

TA 2233 Acting for The Camera

Prerequisites: ENGL 0203, adequate placement score, or by meeting determined placement measures

3 Credits The student will develop and demonstrate, through listening, interpretation, and response exercises, a personal technique and methodology of acting in the media of film and video.

World Languages

WL 1000 Special Topics in World Languages

Prerequisites: ENGL 0203, adequate placement score, or by meeting determined placement measures

1-6 Credits The beginning student will explore designated aspects of language and/or culture. May be repeated with a change in subject matter.

WL 2000 Special Topics in World Languages

Prerequisites: WL 1000 or by evaluation. § Criteria for evaluation is in division office.

1-6 Credits The intermediate student will explore designated aspects of language and/or culture. May be repeated with a change in subject matter.