

Course Descriptions

ABLE

ABLE 1000 Leadership & Team Development **1 Credit Hours**
To increase students awareness, self-confidence, and ability to impact a community through service, goal setting skills, communication skills, diversity, team building skills, and effective leadership in life.

ACCOUNTING

ACCT 1602 General Accounting **3 Credit Hours**
General Accounting includes the theory and practice associated with double-entry accounting. Special emphasis is placed on the use of special journals, subsidiary ledgers, accounting for the control of cash, the voucher system, and payroll accounting. Still further emphasis is given to the use of business papers as supporting vouchers for the accounting that follows. (General Accounting cannot be substituted for Accounting I.)

ACCT 1611 Microcomputer Account Appl **3 Credit Hours**
This course emphasizes the use of the microcomputer for special journals, subsidiary journals, accounting for the control of cash, and payroll accounting. A review of accounting theory and mechanics is included.
Prerequisite: BSTC 1036 Computer Concepts & Appl AND ACCT 1602 General Accounting or consent of instructor. Barton County Campus classes use Quickbooks

ACCT 1614 Accounting I **3 Credit Hours**
This course emphasizes the fundamental principles and practices involved in financial accounting. Basic accounting procedures for the single proprietorship type of business must be mastered in this course.
Prerequisite: ACCT 1602 General Accounting or one year high school accounting, or consent of instructor.

ACCT 1615 Accounting II - Honors **3 Credit Hours**
Prerequisite: ACCT 1614 Accounting I with a grade of C or better

ACCT 1616 Accounting II **3 Credit Hours**
Accounting II is a continuation of the first principles course in financial accounting, Accounting I. Basic procedures in the financial accounting and statement analyses of partnerships and corporations are emphasized.
Prerequisite: ACCT 1614 Accounting I with a grade of C or better

ACCT 1618 Managerial Accounting **3 Credit Hours**
This course emphasizes the managerial uses of accounting information, including performance measurement, cost control, planning for the future, and analysis of fund flows.
Prerequisite: ACCT 1616 Accounting II with a grade of C or better or concurrent enrollment in ACCT 1616 Accounting II

ACCT 1619 Managerial Accounting - Honors **3 Credit Hours**
Prerequisite: ACCT 1616 Accounting II with a grade of C or better

ACCT 1625 Technical Accounting Capstone **1 to 3 Credit Hours**
This capstone course will review the accounting cycle and require the student to apply all previously learned concepts in accounting, payroll and the use of the computer as it relates to accounting. It will also emphasize strategies for seeking, obtaining and retaining employment including attitudes, work ethics, teamwork, client service skills, resumes and job interviewing skills.
Prerequisite: ACCT 1614 Accounting I AND ACCT 1616 Accounting II

ACCT 1640 Accounting-Business Operations **3 Credit Hours**
This course will introduce the student to investing decisions and financing decisions faced by managers. These decisions will be presented within a framework of planning, performing, and evaluating activities. The course will be taught from the perspective of the decision-maker as a user of accounting information.

ACCT 1641 Accounting-Invest & Financing **3 Credit Hours**
This course will introduce the student to operating decisions faced by managers. These decisions will be presented within a framework of planning, performing, and evaluating activities. The course will be taught from the perspective of the decision-maker as a user of accounting information.

ADULT HEALTH CARE

ADHC 1010 Phil & Depart Mgmt of LTC **2 Credit Hours**
This class provides a thoughtful and caring approach to the philosophy and management of long term care. The course serves as the core curriculum for advancement as a Social Service Designee and/or Activities Director as required by the Kansas Department of Health & Environment (KDHE).

ADHC 1987 Med, Ther, & Supportive Serv **1 Credit Hours**
The complex disease processes, age related changes, psychological needs, treatments, regimens, and requirements of residents of long-term care. This course will provide medication aides with information about the assessment and medication administration for residents in a long-term care facility. **RESTRICTION:** Student must be a Certified Medication Aide.
Prerequisite: Student must be a Certified Medication Aide.

ADHC 1990 Rehab Aide in Nursing Home **1 or 2 Credit Hours**
This course offers discussion in organizational and management techniques for understanding, initiating, and maintaining the rehabilitative aide program in the nursing home; discusses physical requisites for implementation; and provides technical training of the rehabilitative aide. **RESTRICTION:** Student must be a Certified Nurse Aide.
Prerequisite: Student must be a Certified Medication Aide.

ADHC 1991 Roles Funct. Soc Ser. Designee **1 Credit Hours**
This class serves as the last training component required to become a Social Service Designee. The course provides information pertinent to the roles and function of a Social Service Designee working in long-term care.
Prerequisite: ADHC 1941 AND ADHC 1977

ADHC 1999 Roles & Function of Act. Dir. **1 Credit Hours**
This class serves as the last training component required to become an Activities Director. The course provides information pertinent to the roles and function of an Activities Director working in long-term care.
Prerequisite: ADHC 1941 AND ADHC 1977

AGRICULTURE

AGRI 1100 Agriculture in our Society **3 Credit Hours**
This course is designed for the student who wishes to learn more about the political, economic, social, historical, production, environmental, and international issues which effect our food supply today and will in the future.
Fulfills: Breadth course AA, AS, AGS,AAS, Social Science Requirement

AGRI 1105 Crop Protection **1 to 3 Credit Hours**
A study of weeds, pests, and diseases that effect crop production and grain storage. Emphasis will be placed on identification of and control by the use of herbicides, insecticides, and cropping practices.

AGRI 1106 Principles of Animal Science 3 Credit Hours

This course introduces students to animal science, providing a foundation for further learning in animal agriculture, and stimulates interest in pursuing additional courses and experiences in the animal sciences. Students majoring in animal science are provided basic principles and concepts preparing them for more specialized and advanced courses. This course is the prerequisite for all other animal science courses. Nonmajors will receive information allowing them to understand animal agriculture and its role in our society and economy.

AGRI 1108 Farm Crop Production 1 to 3 Credit Hours

A study of the basic farm crops in Kansas including resources and techniques used to produce these crops, as well as soil properties and plant processes basic to understanding cropping practices and systems.

AGRI 1110 Fundamentals Animal Nutrition 3 Credit Hours

This course builds on the foundation provided in AGRI 1106, Principles of Animal Science. Fundamentals of Animal Nutrition is designed to create a basic understanding of animal nutrition, including nutrient digestion and metabolism, feedstuff characteristics, and principles for formulating nutritionally balanced diets.

Prerequisite: AGRI 1106 Principles of Animal Science with a grade of D or better or consent of instructor.

AGRI 1114 Plant Science 0 to 5 Credit Hours

A study of the principles of production of economic plants including morphology, taxonomy, physiology, ecology, propagation, preservation, and storage.

Fulfills: Laboratory Course, Natural Science Requirement

AGRI 1115 Introduction to Soils/Lab 5 Credit Hours

This course is an overview of the physical, chemical, and biological processes involved in the formation, classification, distribution, behavior, and management, and ecology of soils.

Prerequisite: A course in general college chemistry or consent of instructor.

AGRI 1116 Prin of Agriculture Economics 3 Credit Hours

A study of economic principles with emphasis on their application to the solution of farm, agribusiness and agricultural industry problems in relationship to the sectors of the U.S. economy and foreign countries.

Fulfills: Breadth course AA, AS, AGS, AAS, Social Science Requirement

AGRI 1120 Range Management 1 to 3 Credit Hours

The course emphasizes the principles and practices of grass management to be utilized for maximum production from range and pasture land in Kansas. Field trips will be made for grass identification and management observations.

Prerequisite: AGRI 1114 Plant Science with a grade of D or better or consent of instructor.

AGRI 1123 Beef Cattle Production 3 Credit Hours

This course introduces students to beef cattle production, including the beef cow herd, stocker/background operations and feedlot enterprises. Studies include understanding the biological and economic principles to sustain profitable beef cattle systems, applying these principles to permit effective decision making. Class discussion will promote understanding, communication, and cooperation among all segments of the beef industry.

Prerequisite: AGRI 1106 Principles of Animal Science with a grade of D or better or consent of instructor.

AGRI 1125 Fertilizer Management 1 to 3 Credit Hours

This course is designed to give students a better understanding of the proper use and application of fertilizers on different types of soils for different crops.

AGRI 1128 Horse Science 3 Credit Hours

This course introduces students to the husbandry and management techniques necessary to care for the horse; whether a performance, working, or pleasure animal. Studies focus on the responsibilities and techniques necessary for every day care, managing reproduction, and reviewing the diseases, wounds, and unsoundness common for the horse. Other facets covered include equitation, nutrition, and preventative medicine required for the horse. Studies are designed to promote decision making processes necessary for good horsemanship, satisfying ownership, and successful husbandry.

AGRI 1131 Summer Occup Work Experience 1 to 4 Credit Hours

A minimum of (480) clock hours per summer at a selected workstation under the supervision of a coordinator is required for the course. Students will be required to fill out a report of their job experience and hours worked.

Prerequisite: Enrollment by consent of instructor.

AGRI 1132 Farm Machinery Repair 1 to 3 Credit Hours

A study of the theory of operation, repair, and adjustment of machines used on a farm operation.

AGRI 1133 Livestock/Carcass Selection I 3 Credit Hours

Origin, development, characteristics, and adaptation of different breeds of livestock, with special emphasis on the selection of livestock or carcasses will be covered in this course.

AGRI 1134 Livestock/Carcass Selection II 3 Credit Hours

A continuation of Livestock Selection I.

AGRI 1139 Concepts for Agriculture 3 Credit Hours

This course will introduce students to an overview of the language, terms, mathematics, and scientific concepts commonly used in production agriculture and related industries.

AGRI 1140 Agriculture Seminar 1 Credit Hours

This course is designed to enable the student to consider careers and new techniques in the agriculture field.

AGRI 1149 Problems in Farm Mechanics 1 to 3 Credit Hours

This course will involve individualized problems in farm mechanics.

AGRI 1150 Economic Entomology 1 to 4 Credit Hours

This course is designed not only to provide specific information on the insect pest management but also to deal with the insects encountered in everyday life. Topics will be insects of crops, livestock, household, trees, and fruits. Emphasis will also be placed on different aspects of pesticides use and application.

AGRI 1151 Diesel Tractor Hydraulics 1 to 3 Credit Hours

This course will cover basic information for hydraulic systems commonly found on today's agricultural farm equipment. A combination of classroom and lab experiences will be utilized to achieve the outcomes.

AGRI 1155 Agriculture Orientation 2 Credit Hours

This course provides an overview of the many careers pathways available within the agriculture industry; identifies the training, education and skills required for these careers, and assists students in developing a plan to address weaknesses and further develop strengths.

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AGRI 1175 Combine Maintenance & Repair 1 to 3 Credit Hours

A comprehensive course designed to acquaint the student with correct and accepted procedures of maintaining harvest combines. Basic repair procedures will also be introduced. This course will cover basic information for mobile air conditioning systems. A combination of classroom and lab experiences will be utilized to achieve the outcomes.

AGRI 1179 Air Conditioning for Farmers 1 to 3 Credit Hours

This course will cover basic information for mobile air conditioning systems. A combination of classroom and lab experiences will be utilized to achieve the outcomes.

AGRI 1180 Planting Equipment 1 to 3 Credit Hours

This course will cover different types of planting equipment used in the agriculture industry.

AGRI 1181 Occupational Work Experience I 1 to 4 Credit Hours

A minimum of (240) clock hours a semester of selected workstations under supervision of a coordinator is required for the course. Students will be required to fill out a report of their job experiences and hours worked.

Prerequisite: Enrollment by consent of instructor.

AGRI 1182 Occupational Wrk Experience II 1 to 4 Credit Hours

A continuation of Occupational Work Experience I.

Prerequisite: AGRI 1181 Occupational Work Experience I

AGRI 1183 2WD Tractor Systems Over 150HP 1 to 3 Credit Hours

This course will place emphasis on agriculture tractor in the over 150 horsepower class. Particular attention will be given to electrical/electronic control systems commonly found on these types of tractors. There will be hands-on experience and ample discussion time supported by detailed manuals, mock-ups, cutaways, and live training tractors.

AGRI 1184 2WD Tractor Systems Undr 150HP 1 to 3 Credit Hours

MX Maxxum systems are covered, from the very basic through the complete analysis of all components in each system. There will be hands-on experience and ample question/ answer time, supported by detailed manuals, training mock-ups, and cutaways.

AGRI 1185 Intro to Hyd/Elec & AirCond Sy 1 to 3 Credit Hours

This course will cover basic information for hydraulic systems, electrical systems, and air conditioning systems. A combination of classroom and lab experiences will be utilized to achieve the outcomes.

AGRI 1191 Combine Hydraulic Systems 1 to 3 Credit Hours

This course will prepare the individual to accurately diagnose and repair common hydraulic systems found on current combine harvesters.

AGRI 1192 Combine Electrical Systems 1 to 3 Credit Hours

This course will develop those skills necessary for a technician to accurately diagnose, repair, configure, and calibrate electrical systems used on a combine harvester.

AGRI 1193 Combine Productivity 1 to 3 Credit Hours

This course will cover in detail the theory of operation and adjustments necessary to efficiently harvest crops with a combine.

AGRI 1194 Intermediate/Large Squ Balers 1 to 3 Credit Hours

This course is devoted to intermediate and large square balers capable of producing bales up to 4 feet X 4 feet and up to 8 feet in length. Particular attention will be devoted to the knotter system.

AGRI 1195 Large Round Balers 1 to 3 Credit Hours

This course will cover in detail the operation, maintenance, and repair of round balers.

AGRI 1197 Small Square Balers 1 to 2 Credit Hours

This course is designed to familiarize the students with Small Square Balers that typically build either 14"X 18" or 16"X18" bales. The student will develop skills necessary to diagnose, repair, and maintain baler systems in such a manner as for the baler to function properly.

AGRI 1199 Self Propelled Windrowers 1 to 3 Credit Hours

This course is designed to familiarize the individual with self-propelled windrowers. The student will study different systems of the windrower, their operation, and steps necessary to produce windrowers necessary for the next step in the hay harvesting process.

AGRI 1202 2WD Tractor Systems 45 to100HP 1 to 3 Credit Hours

Training on JX and JXU Maxxima systems is provided, from the very basic through the most complete analysis of all components in each system. There will be hands-on experience and ample question/answer time, supported by detailed manuals, training mock-ups, and cutaways.

AGRI 1205 Tractor Systems 300 HP and Up 1 to 3 Credit Hours

This course is designed to acquaint the technician with the various operational systems utilized on large articulated tractors. Particular emphasis will be placed on electronic control systems operation, diagnostics, and repair.

AGRI 1210 Precision Farming Systems 1 to 3 Credit Hours

This course is designed to develop those skills necessary for the student to accurately and correctly diagnose, repair, and utilize precision farming systems.

AGRI 1212 Commercial Drivers License 3 Credit Hours

This course provides necessary information to successfully acquire a Commercial Drivers License. The student will be taught skills to demonstrate proficiency while operating a commercial motor vehicle. Students will understand changing conditions, demands, traffic situations, and hazards that are essential in the professional driver's job.

AGRI 1213 Introduction to GPS 3 Credit Hours

This class has been designed to introduce the student to the agricultural applications of GPS(Global Positioning Systems) also called precision agriculture. General technical aspects of GPS satellites, differential correction, and hardware will be covered. Instruction in agricultural mapping, navigation, variable rate technology (VRT) and yield monitoring will also be included.

AGRI 1215 Skid Steer Loader Oper & Diag 2 Credit Hours

This course emphasizes skid steer loader operation and diagnostics. Particular attention will be given to electrical/electronic control systems and hydraulic systems commonly found on this type of equipment. The class includes classroom and hands-on instruction supported by detailed manuals, mock-ups, cutaways, and live training equipment.

AGRI 1216 Farm Machinery and Technology 3 Credit Hours

This course is designed to create basic competencies in operating beef cattle production equipment, including computer technology. Classroom work and field trips will increase student awareness and understanding of the function, operation, and maintenance of equipment used in the beef cattle industry. Equipment covered includes front-end loaders, skid steers, feed trucks, feed mills, and cattle handling equipment. Special emphasis is placed on safe equipment use and includes a thorough review of the Occupational Safety and Health Administration's (OSHA) regulations for the beef cattle industry. As computer technology is a major component of the beef cattle production, emphasis is placed on computer related technologies and their role in the industry.

AGRI 1218 Beef Cattle Operations 3 Credit Hours

This course introduces students to the management and regulatory factors affecting decisions made in a beef cattle enterprise. They will understand state and federal governmental agencies' role in the beef industry, the importance of Beef Quality Assurance programs, and the application of the Hazard Analysis and Critical Control Point system. The student will also be able to describe animal husbandry techniques important to beef production. Emphasis is placed on the safety and welfare of the general public, the people working on a beef enterprise, and the beef cow herd.

AGRI 2108 Farm Crop Production 1 to 3 Credit Hours

A study of the basic farm crops in Kansas including resources and techniques used to produce these crops, as well as soil properties and plant processes basic to understanding cropping practices and systems.

AGRI 2132 Farm Machinery Repair 1 to 3 Credit Hours

A study of the theory of operation, repair, and adjustment of machines used on a farm operation.

AGRI 2183 2WD Tractor Systems Over 150HP 1 to 3 Credit Hours

This course will place emphasis on agriculture tractor in the over 150 horsepower class. Particular attention will be given to electrical/electronic control systems commonly found on these types of tractors. There will be hands-on experience and ample discussion time supported by detailed manuals, mock-ups, cutaways, and live training tractors.

AGRI 2184 2WD Tractor Systems Under 150HP 1 to 3 Credit Hours

MX Maxxum systems are covered, from the very basic through the complete analysis of all components in each system. There will be hands-on experience and ample question/answer time, supported by detailed manuals, training mock-ups, and cutaways.

ANTHROPOLOGY**ANTH 1816 Cultural Anthropology 1 to 3 Credit Hours**

A survey of culture and its importance for man and his society, viewed through both past and present.

Fulfills: Depth course AA, AS, AGS, AAS, Social Science Requirement

ANTH 1819 World and Regional Geography 3 Credit Hours

This course is designed as an introductory geographic survey arranged around the eight major regions: Anglo-American, Latin American, Europe, the former Soviet Union, The Middle East, The Pacific World, and Africa. Emphasis is placed upon an analysis of the natural environment, cultural environment, population status, economic development and potentials.

Fulfills: Breadth course AA, AS, AGS, AAS, Social Science Requirement

ANTH 2812 Introduction to Anthropology 1 to 3 Credit Hours

Introduction to Anthropology is an overview of the discipline of anthropology. The course will include concepts of biological anthropology, archaeology, and human prehistory, cultural anthropology, applied anthropology, and linguistics.

ARTS**ARTS 1200 Art Appreciation 3 Credit Hours**

This course is an introduction to art appreciation intended to provide a foundation in the basic concepts, materials and processes of the visual arts, as well as a brief history of art in Western and non Western societies. Through analysis of examples drawn from the past and the present, it assists the student in recognizing the universal qualities in human aesthetic response and the special differences that define every culture.

Fulfills: Breadth course AA, AS, AGS, AAS, Humanities Requirement

ARTS 1201 Art History Survey I 3 Credit Hours

This course is an introduction to the first half of art history. It consists of a study of the art produced from prehistoric times through Gothic period. The course will study the evolution of architecture, sculpture, painting, and the crafts. Patrons, techniques, values, concepts, philosophies, and materials used by artists will be studied. Major movements, themes, artworks, and artists will be studied as well as how the art is a reflection of the society that produced it. This course will include the art and cultures of both Western and non-Western societies. This course is an introduction to the first half of art history. It consists of a study of the art produced from prehistoric times through the Gothic period. The course will study the evolution of architecture, sculpture, painting, and the crafts. Patrons, techniques, values, concepts, philosophies, and materials used by artists will be studied. Major movements, themes, artworks, and artists will be studied as well as how the art is a reflection of the society that produced it. This course will include the art and cultures of both Western and non-Western societies.

Fulfills: Breadth course AA, AS, AGS, AAS, Humanities Requirement

ARTS 1202 Design I 3 Credit Hours

This course is an introduction of two-dimensional composition through the study of the elements and principles of design. A variety of projects are assigned to explore each concept studied. Design is the use of the art elements arranged according to the principles. These basic concepts are fundamental to the development of artistic expression and interpretation. This course is a foundation on which other studio courses will build.

Fulfills: Humanities Requirement, Studio Course (AA up to 3 hrs)

ARTS 1203 Art History Survey II 3 Credit Hours

This course is an introduction of the second half of art produced from the late Gothic and early Renaissance period through the Modern Age. The course will study the evolution of architecture, sculpture, painting, and the crafts in the contact of the societies in which they were created. Patrons, techniques, values, concepts, philosophies, and materials used by artists will be studied. Major movements, works of art and artists will be studied. This course will include the art and cultures of both Western and non-Western societies.

Fulfills: Breadth course AA, AS, AGS, AAS, Humanities Requirement

ARTS 1204 Design II 3 Credit Hours

This course is an introduction to composition through the study of the elements and principles of three-dimensional design. A variety of projects are assigned to explore each concept studied, which includes the use of a variety of materials. The basic concepts of three-dimensional design are fundamental to the development of artistic expression and interpretation. This course is a foundation on which other studio courses will build.

Fulfills: Humanities Requirement, Studio Course (AA up to 3 hrs)

Course Descriptions

ARTS 1205 Graphic Design

3 Credit Hours

An introductory course to visual intelligence and graphic design problem solving. This course will emphasize a grasping of the fundamental techniques, concepts, and principles of visual communication. **RESTRICTION:** ARTS 1202 Design I, ARTS 1214 Drawing I, or Permission of Instructor.

Fulfills: Humanities Requirement, Studio Course (AA up to 3 hrs)

Prerequisite: ARTS 1202 Design I or ARTS 1214 Drawing I or consent of instructor.

ARTS 1206 Directed Independent Study/Art

1 to 3 Credit Hours

Directed independent study is a structured learning experience offered as an extension of the regular curriculum. It is intended to allow students to broaden their comprehension of the principles of, and their grasp of competencies associated with academic, nonvocational disciplines. Its purpose is to supplement extant courses with individualized, in-depth learning experiences. Such learning experiences may be undertaken independent of the traditional classroom setting, but will be appropriately directed and supervised by regular instructional staff.

Fulfills: Humanities Requirement, Studio Course (AA up to 3 hrs)

Prerequisite: Enrollment by consent of instructor

ARTS 1209 Watercolor Painting I

3 Credit Hours

An introduction to the technique of painting in various water soluble media. Development of personal skills and techniques using water soluble media, primarily transparent watercolor, will be stressed.

Fulfills: Humanities Requirement, Studio Course (AA up to 3 hrs)

ARTS 1210 Painting I

1 to 3 Credit Hours

An introduction to the techniques of painting in either oil or acrylic. Painting problems in the nature of still life, landscape, or abstraction will be used to aid in the development of each student's expressive ability. The course will include a study of the technical processes of the media, a study of composition and instruction on framing and display of the work. Students are encouraged to work in their own chosen style because this course focuses on personal development.

Fulfills: Humanities Requirement, Studio Course (AA up to 3 hrs)

ARTS 1211 Watercolor Painting II

3 Credit Hours

Further exploration into the technique of painting in various water-soluble media, with attention being placed on the development of personal skills and techniques. The course will also be concerned with a study of some of the experimental techniques which can be used to produce a watercolor painting.

Fulfills: Humanities Requirement, Studio Course (AA up to 3 hrs)

Prerequisite: ARTS 1209 Watercolor Painting I

ARTS 1212 Painting II

3 Credit Hours

The continued development of the processes and techniques of painting in either oil or acrylic. This course will deal with painting problems set up during a conference with the instructor. Emphasis will be placed on the advancement of expressive skills and development of an individual style.

Fulfills: Humanities Requirement, Studio Course (AA up to 3 hrs)

Prerequisite: ARTS 1210 Painting I

ARTS 1214 Drawing I

3 Credit Hours

An introduction to basic freehand drawing. Emphasis will be placed on object representation through descriptive and expressive means. The control of line, value, and spatial illusions will be worked on with a variety of media. The course will emphasize coordination of the eye and hand.

Fulfills: Humanities Requirement, Studio Course (AA up to 3 hrs)

ARTS 1216 Drawing II

3 Credit Hours

Further exploration of basic drawing through a study of form and space in a variety of drawing media and subjects.

Fulfills: Humanities Requirement, Studio Course (AA up to 3 hrs)

Prerequisite: ARTS 1214 Drawing I

ARTS 1217 Painting Seminar

1 to 3 Credit Hours

An advanced painting course concerned with a continued development of processes and techniques based on design fundamentals in painting. An in depth study of a particular technique and artist will be incorporated into the course. Emphasis will be placed on personal interpretation, creativity and development of an individual style.

Fulfills: Humanities Requirement, Studio Course (AA up to 3 hrs)

Prerequisite: ARTS 1212 Painting II

ARTS 1222 Ceramics I

1 to 3 Credit Hours

This course is an introduction to the basic knowledge of clay and clay processes as applied in art/craft forms. Students will learn forming methods of pinch, coil, slab, and wheel construction. The nature and origin of clay will be studied. Surface decoration and glazing will be studied. Emphasis is on clay as an expressive art material.

Fulfills: Humanities Requirement, Studio Course (AA up to 3 hrs)

ARTS 1223 Introduction to Ceramics

1 Credit Hours

Introduction to ceramics will familiarize the student with how a ceramic studio functions. Emphasis will be learning about safety in the studio, ceramic materials and ceramic techniques. This introductory course includes how to process clay from its wet stage to its final firing in a kiln. The class will include demonstrations, lectures and hands on projects.

Fulfills: Humanities Requirement, Studio Course (AA up to 3 hrs)

ARTS 1224 Ceramics II

3 Credit Hours

An introduction to using the potter's wheel and further development of hand building techniques in clay. The emphasis is on clay as an expensive art material. Glaze formulation and firing procedures are studied. By expanding the knowledge of material and techniques, the student will explore how to give form to their imagination through clay.

Fulfills: Humanities Requirement, Studio Course (AA up to 3 hrs)

Prerequisite: ARTS 1222 Ceramics I

ARTS 1225 Ceramics Seminar-Potters Wheel

3 Credit Hours

An introduction to throwing various utilitarian forms on the potter's wheel. The development of personal skills and techniques using clay and the potter's wheel will be stressed. **RESTRICTION:** Consent of Instructor.

Fulfills: Humanities Requirement, Studio Course (AA up to 3 hrs)

Prerequisite: Enrollment by consent of instructor

ARTS 1232 Individual Art Projects

1 to 3 Credit Hours

This course is designed for those individuals who have taken all or most of the art courses and wish to continue their advancement in a particular area. The student will explore in-depth specific media, subject matter, and techniques agreed upon with the instructor. The student will develop a higher level of ability to achieve visual communication with the forms. **RESTRICTION:** Consent of Instructor.

Fulfills: Humanities Requirement, Studio Course (AA up to 3 hrs)

Prerequisite: Enrollment by consent of instructor

ARTS 1234 Photography I

1 to 3 Credit Hours

To provide the basic skills in the technical processes of black and white photography. The course will cover film loading, picture taking, developing, printing, and mounting of the photograph. Photograph composition and the use of the photograph, as an art form will be studied.

Fulfills: Humanities Requirement, Studio Course (AA up to 3 hrs)

ARTS 1235 Photography II **1 to 3 Credit Hours**

A studio/discussion course in documentary and special effect photography. The course will involve short and long term projects (photo essays) dealing with nature and society, special effects, darkroom, digital manipulation, and processing procedures.

Fulfills: Humanities Requirement, Studio Course (AA up to 3 hrs)

Prerequisite: ARTS 1234 Photography I

ARTS 1236 Photography Seminar **3 Credit Hours**

This course will provide further exploration of the technical and aesthetic aspects of photography as contemporary art medium. Color photography will be emphasized including developing and printing.

Fulfills: Humanities Requirement, Studio Course (AA up to 3 hrs)

Prerequisite: ARTS 1234 Photography I

ARTS 1237 Elementary School Art **3 Credit Hours**

This course is a study of concepts, materials, and techniques in art appropriate for teaching in the elementary grades. The prospective teacher will study children's artistic development, learn to formulate art lesson plans, observe art instruction, and complete projects utilizing school art material.

ARTS 1245 Computer Graphics **3 Credit Hours**

This computer art and design course is designed to introduce students to the basics of computer technology and how designers and artists use this tool to solve visual problems in graphic design and studio art. Emphasis will be placed on individual expression and acquiring skills to effectively communicate with the use of a computer. Students will be introduced to the fundamentals of computer graphics through lecture, presentations, discussion and hands-on experiences. **RESTRICTION:** ARTS 1202 Design I or ARTS 1205 Graphic Design or Consent of Instructor.

Fulfills: Humanities Requirement, Studio Course (AA up to 3 hrs)

Prerequisite: ARTS 1202 Design I with a grade of D or better or ARTS 1205 Graphic Design with a grade of D or better

ARTS 1246 Digital Photography I **3 Credit Hours**

This course covers the visual and technical aspects of digital photography. Students will learn about exposure, depth of field, resolution, white balance settings, file compression, formats, composition, and design. They will also learn about digital image acquisition, manipulation, storage, and display, and the ethics of digital image process.

ARTS 1249 Figure Drawing **3 Credit Hours**

The student will aim to develop awareness of the structure, anatomy and expressive qualities of the human form in a variety of ways including: line, plane, value, mass and shape. Students will work from live clothed models to explore a range of medium and techniques. This course will continue the process started in Drawing I, which included building a solid foundation of drawing skills through observation.

Prerequisite: ARTS 1214 Drawing I with a grade of D or better

ARTS 1250 Art History Survey I - Honors **3 Credit Hours**

This course is an introduction to the first half of art history. It consists of a study of the art produced from prehistoric times through the Gothic period. The course will study the evolution of architecture, sculpture, painting, and the crafts. Patron, techniques, values, concepts, philosophies, and materials used by artists will be studied. Major movements, themes, artworks, and artists will be studied as well as how the art is a reflection of the society that produced it. This course will include the art and cultures of both Western and non-Western societies.

ARTS 2207 Humanities Through the Arts **1 to 3 Credit Hours**

This course approaches the development of Western culture through the study of art, history, literature, music, and philosophy. It covers man's creative achievements from the beginning of civilization through the twentieth century.

ARTS 2225 Ceramics Seminar-Potters Wheel **1 to 3 Credit Hours**

An introduction to throwing various utilitarian forms on the potter's wheel. The development of personal skills and techniques using clay and the potter's wheel will be stressed.

AUTOMOTIVE**AUTO 1000 Consumer Mechanics** **1 or 2 Credit Hours**

This course is a study of the basic fundamentals and theory of operation of the major components of the automobile. The primary purpose is to acquaint the student with the proper periodic service procedures necessary to maintain the automobile in a safe and economical operating condition.

AUTO 1006 Fundamentals of Mechanics I **1 to 6 Credit Hours**

In this course, the theory and fundamentals of the major components, specifically, automotive engines, supportive systems, standard and automatic transmissions, brake systems, chassis, suspension, steering and alignment are presented. Designed to develop skill in overhaul and repair of clutches, standard transmissions, power shift, automatic transmissions, drive lines, differentials, and student's work on units with regard to areas being studied.

AUTO 1010 Carburetion & Problem Analysis **1 to 3 Credit Hours**

A study of the design, theory of operation, repair and adjustment of carburetors and their circuits. Troubleshooting of other automotive engine systems is also included.

AUTO 1018 Special Problems in Auto Tech **1 to 4 Credit Hours**

This course is designed for the student desiring to obtain training beyond the normal curriculum offerings. It consists primarily of lab work supervised by an instructor.

AUTO 1024 Auto Body Repair I **1 to 3 Credit Hours**

This course is a study of the basic fundamentals and theory of auto body repair and repainting. The primary purpose is to acquaint the student with the proper repair techniques on modern automotive bodywork.

AUTO 1026 Auto Body Repair II **1 to 3 Credit Hours**

This course is designed as a continuation of 1024 with emphasis on major body repair, frame straightening, and painting.

Prerequisite: AUTO 1024 Auto Body Repair I or POWR 1024

AUTO 1028 Seminar in Auto Mechanics **1 to 3 Credit Hours****AUTO 1036 Auto Body Repair III** **1 to 3 Credit Hours**

This course is designed to further develop those competencies, which were begun in the prerequisite courses. At the successful completion of this course, students will be able to perform those tasks with little, if any, supervision.

Prerequisite: AUTO 1026 Auto Body Repair II or POWR 1026

Course Descriptions

AUTO 1050 Motorcycle Safety for Beg Ride 1.5 Credit Hours

This course covers the basic fundamentals for you to develop your capabilities to become a safe and responsible motorcyclist. It provides the opportunity for you to learn the physical and mental skills important for operating a motorcycle. In the classroom, you will learn ways to minimize risk and handle special riding situations as well as Kansas licensing laws and a traffic system review. During the riding portions of the course, you will be coached to develop the physical skills of basic control, then move on to more advanced skills such as quick stops, cornering, and swerving.

AUTO 1060 Occupational Internship I 1 to 6 Credit Hours

This course is designed to provide the student with practical work experience and on-the-job training within his or her chosen career field. Students will engage in experiences to enhance the development of their professional automotive career.

AUTO 1100 Intro to Automotive Technology 1 to 3 Credit Hours

In this course students will explore and become acquainted with safety and environmental concerns, tools/equipment, electronic service information, workplace skills and career opportunities specific to the automotive repair industry.

AUTO 1102 Brakes I 3 Credit Hours

In this course students explore theory and perform analysis/ service to the brake hydraulic, disc, drum and parking brake system of the automobile.

AUTO 1104 Brakes II 1 to 3 Credit Hours

In this course students will expand their knowledge and application of maintenance and service of hydraulic, disc, drum, and mechanical parking brake systems. While expanding their knowledge of learning and application of regenerative brake systems, ABS components and operation, ABS Diagnosis and Service, and Electronic Stability Control Systems.

AUTO 1106 Steering & Suspension 1 to 5 Credit Hours

In this course students will explore suspension and steering theory, and perform maintenance and service of suspension and steering systems.

AUTO 1108 Engine Repair I 3 Credit Hours

In this course students explore theory and perform analysis/ service of engine systems of the automobile.

AUTO 1110 Engine Repair II 1 to 5 Credit Hours

In this course students explore theory and perform analysis/ service to the engine systems of the automobile.

AUTO 1112 Electrical I 3 Credit Hours

In this course students will explore basic electrical theory; interpret electrical measurements, and perform basic electrical wire and terminal repair.

AUTO 1114 Electrical II 3 Credit Hours

In this course students will explore theory and perform analysis/repair of the battery, starting, charging, lighting and accessory systems of the automobile.

AUTO 1116 Electrical III 2 to 4 Credit Hours

Electrical III is a capstone course designed to build upon students' cumulative knowledge of automotive electrical/ electronic systems. Students will perform analysis and repair of electrical systems in a live-shop environment.

AUTO 1118 Automotive Air Conditioning 1 to 4 Credit Hours

In this course students explore theory and perform analysis/service to the automotive heating and air conditioning systems of the automobile.

AUTO 1120 Engine Performance I 3 Credit Hours

In this course students will explore engine theory and perform maintenance and service of engine mechanical, electrical, fuel, and ignition systems.

AUTO 1122 Engine Performance II 3 Credit Hours

In this course students will explore theory, evaluate performance, and service the emission control system of the automobile.

AUTO 1124 Engine Performance III 2 to 4 Credit Hours

Engine Performance III is a capstone course designed to build upon students' cumulative knowledge of engine mechanical, powertrain management and emission control systems. Students will evaluate test results and perform engine performance related repairs in a live-shop environment.

AUTO 1126 Manual Transmissions 1 to 4 Credit Hours

In this course students explore theory and perform analysis/ service of manual transmissions and drive train systems of the automobile.

AUTO 1128 Automatic Transmissions 1 to 6 Credit Hours

In this course students explore theory and perform analysis/ service of Automatic Transmissions and Transaxle systems of the automobile.

AUTO 1130 Services Techniques I 1 to 5 Credit Hours

Service Techniques I is a performance based course designed to provide practical work experience for first year automotive students. Projects that reinforce first semester coursework will receive highest consideration. Students who enroll in this course must provide their own tools.

Prerequisite: Minimal hand-tool requirement for students enrolled in Service Techniques: Sears 283 piece tool set model #25283 or equivalent. Students who do not have minimal tool requirement are not eligible to enroll.

AUTO 1132 Services Techniques II 2 to 5 Credit Hours

Service Techniques II is a performance based course designed to provide practical work experience for students entering their second year of automotive training. Projects that reinforce current semester coursework will receive the highest consideration. Students who enroll in this course must provide their own tools.

Prerequisite: Minimal hand-tool requirement for students enrolled in Service Techniques: Sears 283 piece tool set model #25283 or equivalent. Students who do not have minimal tool requirement are not eligible to enroll.

AUTO 1134 Services Techniques III 2 to 5 Credit Hours

Service Techniques III is a performance based cap-stone course designed to provide practical work experience for second year students near the completion of their automotive training. Projects that best prepare students for employment will receive highest consideration. Students who enroll in this course must provide their own tools and participate in certain job shadow activities.

Prerequisite: Minimal hand-tool requirement for students enrolled in Service Techniques: Sears 283 piece tool set model #25283 or equivalent. Students who do not have minimal tool requirement are not eligible to enroll.

AUTO 1140 Hybrid & Electric Powertrains 1 to 3 Credit Hours

This course provides students the opportunity to examine AC/ DC high voltage systems utilized in hybrid and electric automobiles. Students will identify HV components, employ recognized safety precautions, and practice maintenance/ diagnostic procedures associated with hybrid and electric automobiles.

AVIATION

AVIA 1409 Private Pilot Ground School **4 Credit Hours**
This course prepares students for the Private Pilot Airplane, Single Engine, Land FAA Knowledge Exam.

BUSINESS

BUSI 1600 Introduction to Business **3 Credit Hours**
This course includes a survey of the field of business organization and management and the scope, the nature, and the involvement of the problems of business.

BUSI 1602 Introduction to Leadership **1 to 3 Credit Hours**
This course emphasizes the research findings about leadership, the practices of leaders, and skill development. This course is designed to fit with courses in management development that emphasizes the leadership function of management. The student will acquire a feel for how leadership is practiced and gain insights and information to enhance his/her leadership skills.

BUSI 1603 Introduction to Finance **3 Credit Hours**
This course provides an overview of major financial concepts in three major fields of finance; institutions, investments, financial management, and an integrated perspective on the interrelationships among them.

BUSI 1604 Small Business Management **1 to 3 Credit Hours**
This course stresses the opportunities in business ownership and principles governing the starting of small enterprise; importance, status problems, and management of small business.

BUSI 1605 Employee Development **1 to 3 Credit Hours**
A practical approach to acquiring the skills needed by the new employee to function in an assigned position within the Department of Defense. The course is designed to enhance the employees human relations skills in the managerial area.

BUSI 1607 Business Ethics **3 Credit Hours**
Business Ethics provides a practical approach to study moral and ethical issues, which relate to problems in business. Although business ethics change daily, classic ethical principles remain constant. This course will cover contemporary business topics with the reader in the decision maker's seat with thought-provoking cases and discussion questions.

BUSI 1608 Business Law I **3 Credit Hours**
This course deals with legal aspects of business as expressed through contracts, agency, negotiable instruments, and sales.

BUSI 1609 Business Statistics **0 or 3 Credit Hours**
An introduction to the basic concepts of statistics related to business and economics including elementary descriptive statistics, probability, various distributions, confidence intervals, sampling methods, hypothesis testing, and correlation and regression.
Fulfills: Foundation Course AA, AS, AGS, AAS, Mathematics Requirement, Natural Science Requirement, Non-Laboratory Course
Prerequisite: MATH 1828 College Algebra with a grade of C or better OR MATH 1826 Intermediate & College Algebra with a grade of C or better OR appropriate placement score.

BUSI 1610 Business Statistics Lab **0 to 1 Credit Hours**
Computer lab focusing on applying statistical software to data analysis and decision making. Using Microsoft Excel software, hands-on applications include, but are not limited to, frequency distribution charts, histograms, descriptive statistics, linear regression, binomial probability, confidence intervals, and hypotheses testing.

BUSI 1611 Business Law I - Honors **3 Credit Hours**

BUSI 1647 Money & Banking **3 Credit Hours**
This course stresses the practical aspects of money and banking and emphasizes the basic monetary theory needed by banking students to apply knowledge acquired on the job. Emphasis is also placed on such problems as 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.

BUSI 1658 Business Insurance-LUTC II **3 Credit Hours**

BUSI 1702 Supervisory Development **3 Credit Hours**
A practical approach to acquiring the skills needed by a supervisor. The course is designed to enhance the human relations skills in the managerial area.

BUSI 1751 Small Business Records I **1 to 3 Credit Hours**
This course stresses the importance of maintaining complete and accurate records in a small business as well as the importance of the ability to anticipate and adequately respond to short and long term financial needs. It is also designed to facilitate understanding of issues related to the money management needs of a small business, particularly in regards to banking and the use of a business plan to secure financing. Basic accounting procedures and financial statement preparation are also covered.

BUSI 1780 Total Quality Management **1 to 3 Credit Hours**
This course introduces the student to the management principles of the quality movement. It examines the cultural and global influences. Process management, systems thinking, variation and statistical thinking, customer-supplier relationships, continuous improvement, and customer satisfaction will be introduced in a service and manufacturing organization.

BUSI 1783 Process Management **1 to 3 Credit Hours**
This course will help individuals to apply the concepts and principles of process management in a service and manufacturing organization. These principles include implementing and managing company-wide quality practices, including standardization, measurement of processes, bench marking, continual process improvement, supplier quality, and employee involvement.

BUSI 1800 Business Communications **3 Credit Hours**
This course is designed to present the principles and develop the techniques of writing business correspondence and other forms of business communications. The use of correct business vocabulary will be stressed as it applies to written business communications.
Prerequisite: Typing proficiency.

BUSI 1802 Payroll Procedures **1 to 4 Credit Hours**
This course is designed to acquaint the student with payroll procedures, including time records, methods of computing earnings, and the preparation of payroll records and federal reports.

Course Descriptions

BUSI 1803 Principles of Management 1 to 3 Credit Hours

A course in management principles and functions. The management theory is studied in the grouping of the basic management functions: planning, organizing, staffing, and controlling.

BUSI 1804 Human Relations in Business 3 Credit Hours

Human Relations in Business is a course that emphasizes the importance of human relations as it applies to work within an organization as well as to everyday life. This course will prepare the student to function within diverse groups of people. It focuses on problem solving, group dynamics, teamwork, communication, leadership styles, and business etiquette. The impact of technology on human relations will also be discussed.

BUSI 1805 Marketing 1 to 3 Credit Hours

This course is designed to introduce the student to the nature and operation of the market structure. Topics covered will include marketing research, new product introduction, marketing institutions and pricing, and marketing legislation.

BUSI 1806 Advertising 1 to 3 Credit Hours

This course is a survey of advertising fundamentals introducing copywriting, layout, market research, and ad placement. The emphasis will be on print and electronic media but other advertising medium will be covered.

BUSI 1807 Customer Service 1 to 3 Credit Hours

This course will focus on the needs and requirements of internal and external customers, the enhancement of customer relationships, the significance of market research with respect to customers, the design and redesign of customer service strategies, and differentiate between internal and external customers in a service and manufacturing organization.

BUSI 1808 DC1 Basic Concepts 3 Credit Hours

This course will consist of a thorough review of the basic concepts of Defined Contribution Administrative Issues and will prepare the student for the DC-1 examination administered by the American Society of Pension Actuaries (ASPA).

Prerequisite: BUSI 1812 Retirement Plan Fundamentals I with a grade of D or better AND BUSI 1813 Retirement Plan Fundamentals-2 with a grade of D or better

BUSI 1809 DC2 Compliance Issues 3 Credit Hours

This course addresses the administration and consulting issues of various types of defined contribution retirement plans such as profit sharing, 401(k), employee stock ownership, money purchase and target benefit plans.

Prerequisite: BUSI 1812 Retirement Plan Fundamentals I with a grade of D or better AND BUSI 1813 Retirement Plan Fundamentals-2 with a grade of D or better

BUSI 1812 Retirement Plan Fundamentals I 2 Credit Hours

This course provides students with a general background in qualified retirement plans and an awareness of the challenges of the retirement planning industry. The course will introduce qualified retirement plans and identify the special characteristics of defined benefit plans and defined contribution plans.

BUSI 1813 Retirement Plan Fundamentals-2 2 Credit Hours

This course provides students with the general background in qualified retirement plans and an awareness of the challenges of the retirement planning industry. Students will gain knowledge in plan terminology and issues in the retirement planning field.

Prerequisite: BUSI 1812 Retirement Plan Fundamentals I with a grade of D or better

BUSI 1814 Entrepreneurship I 3 Credit Hours

Entrepreneurship I is a continuation of the Introduction to Entrepreneurship course and will build on the knowledge and skills gained in the pre-requisite course. The course will include skills and strategies in opportunity recognition, market assessment, social need, feasibility plans, structure, costs and sustainability. Course curriculum conforms to National Business Education Association (NBEA) and Ewing Marion Kauffman Foundation 2007 Standards.

BUSI 1815 Entrepreneurship 3 Credit Hours

This course is designed to acquaint the prospective business owner with the background of business, characteristics of being an entrepreneur, and the rewards as well as the penalties of owning a business. A business plan will be developed and attention will be given to business protection and community relations.

BUSI 1816 TGPC I 2 Credit Hours

This course focuses on the administration and compliance requirements of 403(b), 457(b) and other plans maintained by tax-exempt and governmental entities. This course will prepare the student for the TGPC-1 examination administered by the American Society of Pension Professionals & Actuaries (ASPPA).

BUSI 1817 TGPC II 3 Credit Hours

This course will focus on distribution aspects, i.e., the sales and marketing issues of working with 403(b), 457(b) and other plans maintained by tax-exempt and governmental entities. This course will prepare the student for the TGPC-2 examination administered by the American Society of Pension Professionals & Actuaries (ASPPA).

BUSI 1818 DC3 Advanced Topics 3 Credit Hours

This course will begin with a study of leased employees and the different types of business entities. It will include coverage of employer situations such as determining controlled groups and affiliated service groups. This course will prepare the student for the DC-3 examination administered by the American Society of Pension Professionals & Actuaries (ASPPA).

BUSI 1820 Management Development Seminar 3 Credit Hours

The course is an introduction to a host of topics essential to the success of practitioners entering into managerial roles. Topics include communication, technical writing, customer service, leadership theories, and management concepts. Basic human resource development ideas will be presented.

BUSI 1821 MGMT Development Seminar II 3 Credit Hours

This course will introduce advanced management concepts and theories, as well as relevant topics to developing effective management skills. Advanced communication topics will be discussed and practical strategies to conflict management and interpersonal relations. Motivational theories and job design will be introduced. Other topics include mentoring, change, and strategies for effective briefings and meetings.

BUSI 1822 MGMT Development Seminar III 3 Credit Hours

This course will build upon a foundation of knowledge of effective management practices and techniques. Advanced leadership theory will be discussed and students will simulate effective leadership practices. Additionally, change management and being a change agent will be covered.

BUSI 2367 Current Topics/Law Enforcement 0.5 Credit Hours

BUSI 2369 The Future of Law Enforcement 0.5 to 1 Credit Hours

This course will focus on the uprising of lawsuits filed against law enforcement officials as well as others in the law enforcement community. The morning session will illustrate how to develop an effective risk management plan and how to implement effective leadership, policies, and communications with the public. The afternoon session will concentrate on criminal profiling. The instructors will demonstrate how criminal profiling can be used as an essential tool in catching criminals or in investigating a crime scene. Both topics will aid not only law enforcement officials but deputies, officers and jailers as well in going their jobs.

BUSI 2682 PA-3 Daily Valuation 1 to 3 Credit Hours

This course will consist of a thorough review of the basic understanding of daily valuation terminology, concepts and procedures and will prepare the student for the PA-3 examination administered by the American Society of Pension Actuaries (ASPA).

BUSI 2690 Workforce Spanish 1 Credit Hours**BUSI 2807 Customer Service 1 to 3 Credit Hours****BUSINESS TECHNOLOGY****BSTC 1001 Introduction to Computers 1 to 3 Credit Hours**

This is a computer literacy course designed to introduce students to what a computer is and how computers can be used. Topics covered include a brief historical survey of computers, components of computer hardware, applications and systems software, survey of programming languages, computer systems design and analysis, problem solving capabilities of a computer and the impact of computer technology on society. Students will also gain experience using microcomputers and packaged software such as word processing, spreadsheets, database management, graphics, and telecommunications.

BSTC 1023 Data Base Management Systems 1 to 3 Credit Hours

Provides theory, information and training in the concepts of database management systems using microcomputer database software to apply and validate these concepts. Database design methodology is discussed. A microcomputer DBMS is used to create a database and generate solutions to implement a business application. Students create tables; input forms, subforms, and switchboard forms; filters; select and action queries; reports and subreports; macros; and custom menu bars, toolbars, and tooltips. Text and spreadsheet data is imported into the database, and database objects are shared with and exported to other programs. Concepts on how to distribute data using a private internal internet or the public Internet are explored. Database security issues are examined.

Prerequisite: BSTC 1036 Computer Concepts & Appl with a grade of D or better Barton County Campus classes use Access 2007.

BSTC 1025 Advanced Database Management 3 Credit Hours

This course provides a comprehensive introduction to the MySQL database. This course not only covers how to create and maintain a database using MySQL but also retrieve information using SQL. It also provides a review of relational database concepts.

BSTC 1027 Information Super Highway 3 Credit Hours

This course is designed to teach the student computer protocol for many different computer systems, computer ethics, downloading files, security issues, and the access of unlimited information resources provides a unique learning experience where students learn how to navigate through the computer resources of the world.

BSTC 1036 Computer Concepts & Appl 3 Credit Hours

This course is an introduction to basic computer concepts and includes hands-on use of microcomputers using common software applications. These software applications include typical features of office suites such as word processing, spreadsheets, database systems, presentation software, browsers, and other features found in current software packages. On course completion, students will understand common computer concepts and will be able to utilize common software applications.

Fulfills: Computer Literacy Requirement, Foundation Course AA, AS, AGS, AAS
Prerequisite: Keyboarding or typing knowledge required.

BSTC 1041 Microcomputer Applications II 3 Credit Hours

Involves the use of more advanced commands of various software packages, delving into the applications of these packages, integrating packages, and tailoring the software to a users needs.

BSTC 1071 Digital Photography 1 Credit Hours

This course will provide basic skills in the technical processes of digital photography. Students will be exposed to media, picture taking, scanning, downloading, printing, and enhancing of the photograph.

BSTC 1615 Personal Finance 3 Credit Hours

This course is primarily concerned with the management of money from the viewpoint of the individual. Topics to be covered include the consumer's credit buying, borrowing, saving and investing, the purchase of insurance, real estate and other major items, and the problems of taxation and wills.

BSTC 1643 Human Resource Management 1 to 3 Credit Hours

Human Resource Management focuses on human resource analysis, planning and staffing, performance evaluation and compensation, training and development of labor relations that co-exist between employers and employees.

BSTC 1662 Related Work Experience I 1 to 3 Credit Hours

This course is designed to provide the student with practical work experience through simulation or actual work experience within the chosen career field. Students will complete tasks within a classroom environment or actual work environment under the direction of an instructor or employer.

BSTC 1664 Related Work Experience II 1 to 3 Credit Hours

This course is designed to provide the student with advanced practical work experience within the chosen career field. Students will complete tasks within a classroom environment or actual work environment under the direction of an instructor or employer. These experiences will be of a more advanced nature. Students will be exposed to and develop work ethics.

Prerequisite: BSTC 1662 Related Work Experience I

BSTC 1685 Spreadsheet Applications 3 Credit Hours

A course emphasizing the use of spreadsheet applications software to solve business problems such as budgeting, accounting, forecasting, and scheduling. Included will be applications using formulas, editing, copying, sorting, recalculating, designing and using templates, generating, graphs, and macros features. Planning techniques and potential uses of spreadsheets in business and industry will be discussed.

Prerequisite: BSTC 1036 Computer Concepts & Appl

Course Descriptions

BSTC 1687 Desktop Publishing 1 to 3 Credit Hours

An introduction to creating typeset, paste-up copy on a microcomputer. Included will be text-entry features, graphics drawing tools, images, formatting and layout features, and use of fonts. The student will evaluate desktop publishing equipment.

Prerequisite: Typing proficiency and basic microcomputer knowledge.

BSTC 1698 Info Processing Systems Mgmt 3 Credit Hours

A course for those who are word processing supervisors or aspire to supervisory or management positions. The emphasis is on office technology, systems organization (including integration of WP/DP, electronic mail, communications, and records management), personnel management, controls and measurement of word processing operations and production controls.

Prerequisite: BSTC 1696 or consent of instructor.

BSTC 1718 Occupational Internship I 1 or 2 Credit Hours

This course is designed to provide the student with practical work experience within his career field. The work will be supervised by the college coordinator, with the training agreement signed between the student's employer, the student, and the coordinator. The training agreement will cover the things to be learned on the job by the student. Students are compensated for their services and, in addition, will receive college credit.

BSTC 1719 Occupational Internship II 1 or 2 Credit Hours

Continuation of Occupational Internship I.

Prerequisite: BSTC 1718 Occupational Internship I

BSTC 1722 Management Seminar 1 to 3 Credit Hours

This course deals with the market buying trip of the retail merchandiser. Items discussed will include types of markets, how to buy, how to pay, and how to have this merchandise delivered to the business.

Prerequisite: Enrollment by consent of instructor.

BSTC 1724 Salesmanship 1 to 3 Credit Hours

In any field of business, professional selling techniques are important. This course deals with the steps of a sale, closing, overcoming objections and helping the customer to make a decision and suggestion selling.

BSTC 1798 Strategic Management 3 Credit Hours

Internal and external issues are evaluated and monitored. All members and levels of the organization are involved in the strategic management process. Formulating and implementing these strategies are the focus of this course.

BSTC 1835 Fundamentals of E-Commerce 3 Credit Hours

This course examines the aspects of electronic commerce covering emerging online technologies, trends and their influence on the electronic commerce marketplace. Students will learn various revenue models and how to market on the Web. The course covers online auctions and various legal and ethical issues. Students will learn about important security issues, their role in organized crime and terrorism, identity theft, and online payment fraud. Finally, students learn how to plan for electronic commerce.

BSTC 1836 Windows Vista 3 Credit Hours

This course covers topics related to Windows Vista. Students will be offered a comprehensive presentation of Microsoft Windows Vista. They will be exposed to practical examples of the computer as a useful tool. Students will acquaint themselves with the proper procedures to manage and organize document storage options for coursework, professional purposes, and personal use. Students will discover the underlying functionality of Windows Vista so they can become more productive and develop an exercise-oriented approach that allows learning by doing.

BSTC 2036 Computer Concepts & Appl 1 to 3 Credit Hours

This course is an introduction to the most common software applications and includes hands-on use of microcomputers and some of the major commercial software. These software packages should include typical features of office suites such as word processing, spreadsheets, database systems, and other features found in software packages. On course completion, students will understand common applications and be able to use selected features of these packages.

BSTC 2048 Appl of Presentation Software 1 to 3 Credit Hours

This course is designed to let the student experience multimedia technology. The student's ability to communicate information is directly related to their success as a professional. Multimedia can help them increase the effectiveness of presentations by incorporating text, graphics, sound, animation, and video.

BSTC 2615 Personal Finance 1 to 3 Credit Hours

This course is primarily concerned with the management of money from the viewpoint of the individual. Topics to be covered include the consumer's credit buying, borrowing, saving and investing, the purchase of insurance, real estate and other major items, and the problem of taxation and wills.

BSTC 2685 Spreadsheet Applications 1 to 3 Credit Hours

A course emphasizing the use of spreadsheet applications software to solve business problems such as budgeting, accounting, forecasting, and scheduling. Included will be applications using formulas, editing, copying, sorting, recalculating, designing and using templates, windows, generating graphs, and macros features. Planning techniques and potential uses of spreadsheets in business and industry will be discussed.

BSTC 2687 Desktop Publishing 1 to 3 Credit Hours

An introduction to creating typeset, paste-up copy on a microcomputer. Included will be text-entry features, graphic drawing tools, images, formatting and layout features, and use of fonts. The student will evaluate desktop publishing equipment.

CHEMISTRY

CHEM 1801 Dir Ind Study/Chemistry 1 to 3 Credit Hours

Directed independent study is a structured learning experience offered as an extension of the regular curriculum. It is intended to allow students to broaden their comprehension of the principles of, and their grasp of competencies associated with academic, nonvocational disciplines. Its purpose is to supplement extant courses with individualized, in-depth learning experiences. Such learning experiences may be undertaken independent of the traditional classroom setting, but will be appropriately directed and supervised by regular instructional staff.

Fulfills: Natural Science Requirement, Non-Laboratory Course

CHEM 1802 Fundamentals of General Chem 0 or 5 Credit Hours

This one semester provides a survey of classical inorganic general chemistry with much less emphasis on problem solving and mathematics than the Principles sequence. Emphasis is given to the practical aspects of chemistry. This course is designed for those persons who need chemistry as a one-year terminal course, such as pre-agriculture, pre-baccalaureate nursing, home economics and similar majors.

Fulfills: Laboratory Course, Natural Science Requirement

Prerequisite: MATH 1821 Basic Algebra with a grade of C or better (or higher level math course) OR having passed Module 5 in College Preparatory Mathematics OR appropriate math placement score.

CHEM 1804 Elementary Organic Chemistry **0 or 5 Credit Hours**

A brief course in inorganic general chemistry with the same underlying philosophy as the Fundamental course.

Prerequisite: CHEM 1802 Fundamentals of General Chem

CHEM 1806 College Chemistry I **0 or 5 Credit Hours**

This course stresses the conceptual and mathematical approach to understanding inorganic general chemistry and prepares students to follow a science-oriented four-year program. It provides students with the necessary tools to handle problems of both a theoretical and practical nature. The students taking this course are usually declared chemistry, physics, engineering, pre-med, etc., majors. **RESTRICTION:** High School Algebra II or Permission of Instructor.

Fulfills: Laboratory Course, Natural Science Requirement

Prerequisite: H.S. Algebra II OR having passed Module 12 in College Preparatory Mathematics OR permission of instructor.

CHEM 1807 College Chemistry I - Honors **0 to 5 Credit Hours**

This course stresses the conceptual and mathematical approach to understanding inorganic general chemistry and prepares the student to follow a science-oriented four-year program. It provides students with the necessary tools to handle problems of both a theoretical and practical nature. The students taking this course are usually declared chemistry, physics, engineering, pre-med, and etc. majors.

CHEM 1808 College Chemistry II **0 or 5 Credit Hours**

This course stresses the conceptual and mathematical approach to understanding general chemistry and prepares the student to follow a science oriented four-year program. It provides students with the necessary tools to handle problems of both a theoretical and practical nature. The students taking this course are usually declared Chemistry, Physics, Engineering, Pre-Med, etc., majors. This course is a continuation of College Chemistry I.

Fulfills: Laboratory Course, Natural Science Requirement

Prerequisite: CHEM 1806 College Chemistry I with a grade of C or better

CHEM 1809 College Chemistry II - Honors **5 Credit Hours**

This course stresses the conceptual and mathematical approach to understanding general chemistry and prepares the student to follow a science oriented four-year program. It provides students with the necessary tools to handle problems of both a theoretical and practical nature. The students taking this course are usually declared Chemistry, Physics, Engineering, Pre-Med, etc., majors. This course is a continuation of College Chemistry I.

Prerequisite: CHEM 1806 College Chemistry I with a grade of C or better

CHEM 1814 Organic Chemistry I **0 to 5 Credit Hours**

This course is the first half of a two-semester course in organic chemistry and provides students with the knowledge of the physical and chemical properties of carbon compounds with emphasis on the mechanisms of organic reactions, the nomenclature of the compounds, and methods of organic synthesis. This course is designed for those students who need a good understanding of organic chemistry. Laboratory is included. Three hour lecture and six hours of laboratory sessions per week.

Fulfills: Laboratory Course, Natural Science Requirement

Prerequisite: CHEM 1808 College Chemistry II with a grade of C or better

CHEM 1816 Organic Chemistry II **0 or 5 Credit Hours**

This course is the second half of a two-semester course in organic chemistry and provides students with the knowledge of the physical and chemical properties of carbon compounds with emphasis on the mechanisms of organic reactions, the nomenclature of the compounds, the methods of organic synthesis. This course is designed for those students who need a good understanding of organic chemistry.

Fulfills: Laboratory Course, Natural Science Requirement

Prerequisite: CHEM 1814 Organic Chemistry I with a grade of C or better

CHEM 1818 Basic Corrosion **1 to 3 Credit Hours**

The National Association of Corrosion Engineers (NACE) Basic Corrosion course is designed to impact a substantial part of the basic information available about corrosion and the means whereby it is controlled. It is intended to be comprehensive of the scope of current knowledge about corrosion of metals, deterioration of non-metals, electrochemical phenomena, elementary chemistry and practical control measures. The intent of the course is to provide theoretical background rather than in-the-field corrosion work. **RESTRICTION:** Consent of Instructor.

Prerequisite: Enrollment by consent of instructor.

CHEM 2818 Basic Corrosion **1 Credit Hours**

The National Association of Corrosion Engineers (NACE) Basic Corrosion Course is designed to impart a substantial part of the basic information available about corrosion and the means whereby it is controlled. It is intended to be comprehensive of the scope of current knowledge about corrosion of metals, deterioration of non-metals, electrochemical phenomena, elementary chemistry and practical control measures. The intent of the course is to provide theoretical background rather than in-the-field corrosion work.

CHILD CARE & GUIDANCE**CHLD 1500 Intro to Early Childhood Ed** **3 Credit Hours**

An introduction to the early childhood profession including an emphasis on professionalism and developmentally appropriate practice. Topics include an overview of history of early education, theoretical program models, different types of early childhood programs, community resources, professional organizations, and contemporary trends and issues in programs for children ages birth to age eight.

CHLD 1504 Early Childhood Curriculum **3 Credit Hours**

A study developed to give students practice in developing program planning techniques and units of learning which will be used in the curriculum of early childhood education programs. Students will gain experience in designing a curriculum that will meet the three developmental needs of children who are students in an early childhood education center.

Prerequisite: CHLD 1553 Creative Experiences for Child AND CHLD 1554 Creative Activities

CHLD 1505 Preschool Child **3 Credit Hours**

To develop an understanding of the principles of development and growth of children from conception to eight years of age singularly and in group settings.

CHLD 1506 Child Care Practicum **3 Credit Hours**

On the job practical experience in any licensed child care center. This particular experience aids the student in knowing if this is the career to pursue.

CHLD 1507 Child Health-Safety & Nutrit. **1 to 3 Credit Hours**

A study of the basic health, nutrition, and safety management practices for all young children.

Course Descriptions

CHLD 1508 Child Care Internship 1 to 6 Credit Hours

Internship in a licensed child care center; to learn to work with professionals in the field, to learn the type of dedication needed, and to observe the working operations of a child care center.

Prerequisite: CHLD 1506 Child Care Practicum AND CHLD 1509 Child Care Practicum II and Internship in a licensed Child Care Facility

CHLD 1509 Child Care Practicum II 3 Credit Hours

This course involves working directly with children and working with administrative aspects as a licensed child care center. The course includes classroom participation and evaluation, curriculum planning and actual teaching experiences. Child Care Practicum II is a continuation of Child Care Practicum learning experience.

Prerequisite: CHLD 1506 Child Care Practicum

CHLD 1512 Child Abuse and Neglect 1 to 3 Credit Hours

This course is designed to educate the student regarding the subject of abuse and neglect of children. The course will discuss the various types and indicators of abuse and neglect as well as prevention issues. Kansas laws will be discussed, as will current community, state, and federal efforts to deal with this problem.

CHLD 1513 Child Play and Games 1 to 3 Credit Hours

This course is designed to stress the importance of play learning attitudes and environments. Students learn the importance of movement in relation to what children learn, and that play environments should encourage children to explore, imagine, invent, and express feelings.

CHLD 1525 Dir Ind Study/Child Care 1 to 3 Credit Hours

An individualized plan of study that is a structured learning experience designed to supplement previous coursework. It is intended to allow students to broaden their comprehension of the principles of, and their grasp of competencies within their career discipline. Such learning experiences may be undertaken independent of the traditional classroom setting, but will be appropriately directed and supervised by regular instructional staff.

CHLD 1548 Curriculum Materials Develop 1 Credit Hours

Student will choose an educational topic or problem for intensive study. A wide selection of creative methods and materials will be presented. Students will develop creative learning methods and curriculum materials to help improve their teaching skills in the classroom or child care facility.

CHLD 1549 Early Childhood Program Admin 3 Credit Hours

Designed to give students an insight into the day care center. Course covers needs assessment, staff enrichment, board of directors, financial responsibilities, directors' responsibilities, development of facility, licensing, equipping, staffing, and publicizing a center.

CHLD 1550 Early Childhood Career Develop 1 Credit Hours

This course provides an overview of the many career pathways available within the early childhood industry and identifies the training, education and skills required for these careers. It also addresses necessary employment skills and professional development options and requirements.

CHLD 1551 Infant & Toddler Edu & Care 3 Credit Hours

This course includes the study of infant and toddler development with emphasis on how to create and maintain developmentally appropriate environments for very young children. Demonstration of the subject matter is included.

CHLD 1552 Single Parenting 1 Credit Hours

A course, which instructs students in a specialized area of parenting.

CHLD 1553 Creative Experiences for Child 3 Credit Hours

This course is a study of constructing and maintaining an environment for young children that fosters aesthetic sensitivity and creativity. It focuses on the selection, construction, and use of materials, activities, and experiences that encourage the young child's creativity in the visual arts, music, body movement, dramatic play, language, science, mathematics, nutrition, social studies, and health and safety curriculum areas.

CHLD 1554 Creative Activities 3 Credit Hours

This course includes the development and creation of materials and activities for children ranging in age from birth to three years. The course will enhance the unique higher learning experiences of children in this age range. Students will present various developmental activities they have planned.

CHLD 1560 Social Emotional Development 3 Credit Hours

To develop an understanding of the principles of the social and emotional development and growth of children from conception to five years of age singularly and in group settings. The successful completion of this course is a component of the Kansas Association of Infant Mental Health Level 1 endorsement.

CHLD 1563 Parenting 3 Credit Hours

An examination of parenting lifestyles and values and their relationship to available alternatives for guiding children's behavior. The course will provide purposeful training in preparation for the responsibilities of parenthood.

CHLD 1565 Preschool Language & Literacy 3 Credit Hours

This course is designed to teach students how to recognize and implement appropriate environmental strategies that support early literacy development and appropriate early experiences with books and writing. Emphasis is placed on speaking and listening, as well as reading and writing readiness. Upon completion of the course, students will be able to select, plan, implement, and evaluate appropriate early literacy experiences.

CHLD 1566 Interaction Tech w/ Children 3 Credit Hours

This course introduces the practical principles and techniques for observing and guiding young children. It provides students with a developmental approach to the acquisition of interaction techniques conducive to healthy social-emotional and self-concept growth in children from birth to eight years. Demonstration of the subject matter is included.

CHLD 1567 Early Intervention Birth-Five 3 Credit Hours

This course introduces the policies and evidence based practices that define and support families related to young children with developmental delays and disabilities. The challenges, complexities and rewards of living and working with young children with developmental delays and disabilities will be demonstrated. Evidence supports connection between early learning experiences and later school and work performance. This course will bring together recommended practices to help educators, other practitioners, families and administrators provide early intervention and quality learning experiences for children from birth to five years. Demonstration of the subject matter is included.

CHLD 2375 Child Care Development 0.5 to 1 Credit Hours

CHLD 2376 Child Education Seminar 0.5 Credit Hours

This continuing education course is designed for directors and teachers of preschools, child care centers, and elementary schools, along with family daycare providers. The course provides training on topics pertinent to the care and education of young children, such as child development, curriculum and lesson planning, behavior and discipline, nutrition, and safety issues.

COMMUNICATIONS

COMM 1200 Interpersonal Communication 3 Credit Hours

This course is designed to help students develop skills in communication and to acquire an understanding of verbal and non-verbal communications as a vital human relations factor in our society.

Fulfills: Breadth course AA, AS, AGS, AAS, Foundation Course AA, AS, AGS, AAS, Humanities Requirement, Oral Communication Requirement

COMM 1201 Dir Ind Study/Communications 1 to 3 Credit Hours

Directed independent study is a structured learning experience offered as an extension of the regular curriculum. It is intended to allow students to broaden their comprehension of the principles of, and their grasp of competencies associated with academic, nonvocational disciplines. Its purpose is to supplement extant courses with individualized, in-depth learning experiences. Such learning experiences may be undertaken independent of the traditional classroom setting, but will be appropriately directed and supervised by regular instructional staff. Restriction: Enrollment by consent of instructor.

Fulfills: Depth course AA, AS, AGS, AAS, Humanities Requirement

Prerequisite: COMM 1230 Public Speaking with a grade of C or better

COMM 1210 Oral Interpretation 3 Credit Hours

Oral Interpretation is the act of attaining to prose or poetry, the meaning intended by the author or poet and using audible symbols and visible bodily action to elicit from an audience response to the meaning. The course is designed to expand the dramatic capabilities of the reader, give them insight in the creativity of the written word, and develop their skills in oral communication.

COMM 1212 Fundamentals of Debate 3 Credit Hours

This course is designed for the novice collegiate debater to study the skills and methodology of argumentation and persuasion in the debate format. Students will learn the correct process of argumentation, research, analogy and persuasive presentation. Those seeking professions in speech communication, public relations, law and salesmanship will find this course valuable.

COMM 1217 Nonverbal Communication 3 Credit Hours

This course is designed to help students become more aware of nonverbal communication as a vital factor in human communication by studying the research, practice, and principles underlying nonverbal behaviors. Topics include kinesics, proxemics, paralinguistics, haptics, and olfactics.

Fulfills: Depth course AA, AS, AGS, AAS, Humanities Requirement

Prerequisite: COMM 1200 Interpersonal Communication with a grade of D or better or COMM 1202 with a grade of D or better

COMM 1220 Organizational Communication 3 Credit Hours

This course is designed to teach and analyze the functions of organizational communication necessary to obtain and become successful in an organizational setting. This includes maintaining effective employer/employee relationships, providing effective supervisory skills, using persuasion in the marketplace and business world, and understanding the non-verbal communication factors inherent within an organization.

Fulfills: Breadth course AA, AS, AGS, AAS, Humanities Requirement

COMM 1222 Technical Communication 3 Credit Hours

This course is designed primarily for the student who needs training and practice in writing skills pertaining to his own field. It will involve familiarity with the journals, with research techniques, report and letter writing and basic mechanical skills.

COMM 1230 Public Speaking 3 Credit Hours

This course includes a study of the theoretical principles underlying effective communicative behavior, and the practical application of those principles in various communicative exercises and assignments. The course is designed to increase the awareness of the importance of speech communication in today's society and develop competency of speakers.

Fulfills: Breadth course AA, AS, AGS, AAS, Foundation Course AA, AS, AGS, AAS, Humanities Requirement, Oral Communication Requirement

COMM 1232 Competitive Forensics 1 Credit Hours

Practical use and performance of intercollegiate forensic activities including Parliamentary Debate, International Public Debate, Extemporaneous Speaking, Impromptu Speaking, and Public Address.

COMM 1234 Persuasion 3 Credit Hours

Practical use and performance of persuasion in public speaking, as well as a careful analysis of persuasion and its related theories in the fields of politics, marketing, and public policy.

Prerequisite: COMM 1230 Public Speaking with a grade of D or better

COMM 1235 Storytelling 3 Credit Hours

This course is designed to acquaint the student with storytelling techniques which can be utilized in various age level classrooms. Students will learn how to choose, prepare and present appropriate stories.

COMPUTER ELECTRONICS

ELTR 1059 Basic DC and AC Electronics 2 Credit Hours

This course will enable participants to analyze a basic electronic circuit to determine voltage, current, and power. Participants will be able to operate the appropriate instrumentation and meters to create and evaluate DC and AC circuits per an operation description.

ELTR 1100 Electrical Devices&Controls I 3 Credit Hours

This course teaches students to identify basic electrical/electronic symbols in a schematic diagram, design a simple motor service in compliance with National Electrical Code mandates and recommendations, calculate voltage drop in a single or three phase AC service, and be familiar with the design, operation, and safety considerations of electrical components such as fuses, circuit breakers, overloads, conductors, conduits, contactors, and relays. Students will also learn to build and safely troubleshoot several electro-mechanical relay circuits.

Prerequisite: ELEC 1332 AC Circuit Fundamentals with a grade of C or better

ELTR 1102 Electrical Devices&Controls II 3 Credit Hours

This course teaches students to identify the interconnection of electrical/electronic symbols and supply this knowledge circuit analysis and troubleshooting and explain the different types of hazardous area classifications and divisions. Students will also learn to wire and safely troubleshoot several ramping, reversing, slave starter, and control motor circuits.

Prerequisite: ELTR 1100 Electrical Devices&Controls I with a grade of C or better

ELTR 1105 Intro to PLC 3 Credit Hours

This course enables the student to configure and apply programmable logic controllers (PLCs) to various automation scenarios. Given an operation specification, the student will be able to program the PLC to conform to typical automation requirements.

Prerequisite: ELEC 1332 AC Circuit Fundamentals with a grade of C or better

Course Descriptions

ELTR 1107 Advanced Programmable Logic 4 Credit Hours

An advanced programmable logic controller (PLC) course designed to train the student in computerized automation of gas pipeline using the ControlLogix PLC, a standard of the industry. The student will become familiar with the advanced features of the programming software and be able to create and troubleshoot ladder logic using an operation specification.

Prerequisite: ELTR 1105 Intro to PLC with a grade of C or better

COMPUTER PROGRAMMING

PRGM 1005 BASIC Programming 3 Credit Hours

This course introduces the student to programming the graphical user interface using Visual Basic. Emphasis will be placed on gaining an understanding of proper design, placement and coding of the graphical features of the interface. Visual Basic will be utilized to develop event driven programs that demonstrate use of simple and array variables, database access and sequential files.

PRGM 1007 Foundation of Computer Science 4 Credit Hours

This course is an introduction of computer science for computer science and information processing majors. It provides an introduction to computer science concepts and is designed to build a strong foundation in computer science. The primary emphasis of this course is on fundamental concepts of data structures, algorithm development, program methodology, artificial intelligence and problem solving. The course includes weekly laboratory assignments, which complement and reinforce the course material.

PRGM 1015 Advanced BASIC 3 Credit Hours

This course is designed to acquaint the student with some advanced processing techniques utilizing the BASIC language. Topics include formatted I/O, multi-dimensional arrays, defined functions, file processing including serial I/O, record I/O and virtual arrays, structure programming concepts, and top-down designs.

Prerequisite: PRGM 1005 BASIC Programming or equivalent.

PRGM 1020 Data Structures & Algorithms 3 Credit Hours

This course is an intermediate level programming course which introduces students to common data structures and algorithms utilized in programming. Students are also introduced to algorithm analysis. Topics to be covered in this course include: lists, stacks, queues, trees, graphs, recursion, sorting/searching algorithms, and algorithm efficiency.

Prerequisite: PRGM 1003

PRGM 1025 C Programming 3 Credit Hours

This course is designed as an introduction to the programming language C. Topics to be covered in the course include C language conventions and rules, data types and operators, control structures, functions, arrays and pointers, data structures, and standard system functions.

Prerequisite: BSTC 1001 Introduction to Computers or BSTC 1036 Computer Concepts & Appl or computer experience.

PRGM 1029 Computer Organization 3 Credit Hours

This course is a study of basic computer architecture. Topics include data representation, instruction sequencing, addressing techniques, overview of operating systems, utility programs, I/O processing, and assembly language.

Prerequisite: BSTC 1036 Computer Concepts & Appl

PRGM 1030 Java Programming 3 Credit Hours

This course is designed as an introduction to the programming language Java. Topics to be covered in this course include: Java language conventions and rules, data types and operations, control structures methods, object-oriented programming, arrays and strings, class hierarchies, user interfaces, and files.

Prerequisite: PRGM 1005 BASIC Programming with a grade of D or better or PRGM 1025 C Programming with a grade of D or better

PRGM 1035 Game Programming & Design 3 Credit Hours

This course is designed for students who have experience in programming and are interested in game development. The course will cover program flow, statements, and functions. The course also covers all the basic functionality of windows, menus, dialogs, icons, graphics, game design, architecture, 2D game engines, game mathematics, data structures, algorithms, and artificial intelligence.

COOPERATIVE EDUCATION PLAN

CEPS 2750 Occupational Internship I 1 to 6 Credit Hours

CEPS 2751 Occupational Internship II 1 to 6 Credit Hours

CEPS 2752 Occupational Internship III 1 to 6 Credit Hours

CEPS 2753 Occupational Internship IV 1 to 6 Credit Hours

CEPS 2754 Directed/Ind Study CIT 1 to 3 Credit Hours

CEPS 2756 Bus/Industrial Supervision I 1 to 3 Credit Hours

CEPS 2757 Bus/Industrial Supervision II 1 to 3 Credit Hours

CEPS 2759 Business/Industrial Tech I 1 to 3 Credit Hours

CEPS 2760 Business/Industrial Tech II 1 to 3 Credit Hours

CEPS 2762 Inspect & Maint of Equipment 1 to 3 Credit Hours

CEPS 2764 Leadership Train Techniques I 1 to 3 Credit Hours

CEPS 2765 Leadership Train Techniques II 1 to 3 Credit Hours

CEPS 2767 Occup Materials & Proc Sem I 1 to 3 Credit Hours

CEPS 2768 Occup Materials & Proc Sem II 1 to 3 Credit Hours

CEPS 2770 Occupational Research 1 to 3 Credit Hours

CEPS 2773 Occup Tools/Equip Seminar I 1 to 3 Credit Hours

CEPS 2774 Occup Tools/Equip Seminar II 1 to 3 Credit Hours

CEPS 2776 Technical Problems I 1 to 3 Credit Hours

CEPS 2777 Technical Problems II 1 to 3 Credit Hours

CORRECTIONS

CORR 1000 Corrections Emer Response Team 3 Credit Hours

This course will focus on emergencies within a detention facility. Students will learn how to respond to incidents, riots, cell extractions and/or disturbances possibly involving uncooperative or violent inmates. Team building and motivation will be stressed as an integral part of building an emergency response team.

CORR 1001 Introduction to Corrections 3 Credit Hours

This is an introductory study of the field of corrections. It covers the correctional process of probation, institutions, and parole. It also covers a survey of correction careers and correction theories.

CORR 1002 KS Dept of Corr Basic Training 1 to 15 Credit Hours

This course provides credit for the basic training required for all newly hired correctional officers within the Kansas Department of Corrections (KDOC). This is an orientation and training program designed to provide an overview of the KDOC and a basic level of knowledge, skills and performance based training abilities.

CORR 1004 Case Management in Corrections 3 Credit Hours

In this course students will examine the offender case management process from sentencing to reintegration in the community. Emphasis will be placed on the examination of correctional case management strategies and intervention techniques.

CORR 1005 Psychology of Criminal Conduct 3 Credit Hours

This course covers the basics of criminal psychology, with instruction on the definition and variability of criminal conduct, various theories, general personality and social psychology approach, developmental aspects, prediction of behavior and classification of offenders, prevention and rehabilitation, punishment and alternatives, exceptional offenders, and applications.

CORR 1006 Corr Supervision & Off Mgmt 3 Credit Hours

Provides students with current information on management and supervision in the correctional facility, focusing on recruiting, training, directing and motivating people. Students will have an understanding of various disorders affecting criminal personality which is critical to effective management of offenders.

CORR 1007 Corrections Internship 1 to 3 Credit Hours

Individual study in a specialized area of the corrections system with emphasis on practical experience in one or more of the operational agencies.

CORR 1008 Special Populations Correction 3 Credit Hours

This course focuses on unique needs and issues of specialized inmate populations. The class also addresses management strategies and programming necessary to humanely incarcerate these groups and to prepare them for successful reintegration into free society. Focus populations will include the medically and mentally ill, the mentally challenged, women, juveniles convicted as adults, the elderly, high risk inmates, and those with unique or non-mainstream religious needs.

CORR 1009 Special Topics in Corrections 1 to 3 Credit Hours

This class provides an individually structured course of study useful in enhancing a student's knowledge of the correctional profession not available in the regular curriculum schedule.

CORR 1010 Correctional Insttit & Issues 3 Credit Hours

This course takes an in-depth look at contemporary issues facing corrections employees. Students are encouraged to think analytically about punishment. By establishing a greater social context, corrections is presented against the backdrop of social forces; namely, political economic, religious, and technological forces that affect the corrections system.

CORR 1011 Cultural & Relig Div in Corr 3 Credit Hours

This course provides information and guidelines for dealing with inmates from various cultural and religious backgrounds. Coursework will start with the history of religion in prison and reveal why it is important for correctional personnel to understand the religious inmate and his/her practices.

CORR 1012 Ethical Decision Making Corr 3 Credit Hours

This course is an examination of the ethical considerations facing the correctional employee. Topics include determining moral behavior, developing moral and ethical behavior, ethics and corrections, ethics and the courts, policy and management issues and professionalism.

CORR 1013 Legal Issues in Corrections 3 Credit Hours

This course will provide students with current and practical information on how to avoid lawsuits in the correctional setting. Students will gain knowledge about federal and state legal liabilities and some of the complex areas of the law affecting correctional institutions.

CORR 1023 Oral Comm in the Corr Environ 3 Credit Hours

This course highlights the application of human communication skills in the corrections workplace. Focus will be on communications between correctional staff and also between correctional staff and inmates. Emphasis will be on self concept, perception, verbal and nonverbal messages, interpersonal relationships and small group communication.

CORR 1024 Corrections Report Writing 3 Credit Hours

This course is designed to include the basic concepts of written communications adapted to the specific tasks encountered in the corrections profession. There will be heavy concentration in dealing with conflict and cooperation, proper grammar and writing information and proper corrections reports. The actual class time will be spent in group discussions, structured exercises to build vocabulary, written communication, oral communication and narrative report writing for the corrections field.

CRIMINAL JUSTICE

CRIM 1600 Intro to Criminal Justice 3 Credit Hours

Provides an introduction to the historical development and the internal and external issues of the various components of the criminal justice system including police, corrections and the courts. The student will illustrate how these interrelated components result in the administration of justice today.

CRIM 1603 Pro Responsibility in CJ 3 Credit Hours

Explores the major components involved in the study of ethics, particularly as it applies to the field of criminal justice. Focus is placed on the code of conduct and ethics of the criminal justice profession and the standards held to in their professional role. The aim of the course is to produce professionals who are not only critical thinkers, but who have the skills necessary to pursue sound ethics in their day-to-day decisions and activities.

CRIM 1604 Critical Issues in Law Enforce 1 to 3 Credit Hours

A detailed study of the policy within a spectrum of critical issues such as the police role in democracy, ethnic tensions and the police, police unionism and police professionalism. Other vital areas of concern covered are civil disturbances, organized crime, civil disobedience, enforcement of the law, and police misconduct.

Course Descriptions

CRIM 1606 Intro to Law Enforcement

1 to 3 Credit Hours

An introduction to law enforcement operation and procedures including organization and administration. Emphasizes the police role in society and operational procedures including trial processes, human relations, career orientation and research areas.

CRIM 1610 Criminology

1 to 3 Credit Hours

This course will endeavor to shed light upon the complexities of criminology, crime causation, and reaction to offenders. Some of the topics include: crime and criminology, casual analysis; psychogenic approaches; the social-psychology of criminal careers, patterns of sexual deviation, murderers and assaultists, criminality among respectable citizens, treatment of offenders, and the results of treatment.

CRIM 1612 Criminal Investigation

3 Credit Hours

Explores issues including the effective interview and interrogation techniques, crime scene management and lab processes, crime scene documentation methods, case preparation and court presentation.

CRIM 1614 Criminal Law

3 Credit Hours

Examines the history, scope and nature of law. It focuses on the parties to a crime; classification of offenses; criminal acts and intent, the capacity to commit crime; and criminal defenses. It will cover the elements of misdemeanor and felony crimes.

CRIM 1616 Criminal Investigation II

1 to 3 Credit Hours

This course includes an analysis of the value and legal considerations involved in the use of the polygraph, informant and interrogation in criminal investigations. An analysis of problems encountered in interviewing and interrogating such cases as homicide, rape, domestic violence, robbery, burglary, theft and narcotics will be covered.

CRIM 1620 Practicum Criminal Justice

1 to 3 Credit Hours

Study in a specialized area of the criminal justice system with emphasis on practical experience in one or more of the operational agencies.

Prerequisite: JUST 1600 or CRIM 1600 Intro to Criminal Justice and consent of instructor.

CRIM 1621 KLETC

12 Credit Hours

This course provides credit for the training required for law enforcement officers in the state of Kansas through the Kansas Law Enforcement Training Center or other appropriate Law Enforcement Academy.

CRIM 1623 Criminal Profiling

3 Credit Hours

This course involves learning the techniques of socio-psychological profiling to establish leads and detect patterns in unsolved cases and/or classify and predict the behavior patterns of repeat offenders, particularly serial murderers, arsonists, rapists, and child molesters.

CRIM 1628 Topics in Criminal Justice

1 to 5 Credit Hours

Study in a specialized area of the criminal justice system with emphasis on pertinent issues of the day.

CRIM 1629 Emergency Vehicle Operations I

1 to 2 Credit Hours

Prepares prospective instructors to teach advanced driving techniques. Emphasis is placed upon safe driving practices, vehicle dynamics and tires, emergency vehicle operation, in-car response to simulated driving skills and emergency situations and/or instructional techniques for the simulated driving skills and emergency situations. This course prepares prospective instructors to teach advanced driving techniques. Emphasis is placed upon safe driving practices, vehicle dynamics and tires, emergency vehicle operation, in-car response to simulated driving skills and emergency situations and/or instructional techniques for the simulated driving skills and emergency situations.

CRIM 1630 Crash Injury Management

1 to 5 Credit Hours

This course is designed for law enforcement officers. The course emphasizes the development of first responder skill in recognition of symptoms of illness and injuries and proper procedures of emergency care. Demonstration and practice are heavily relied upon as a teaching method. Each lesson allows practice of specific skills as appropriate tests and evaluation sessions are designed to ensure attainment of proficiency levels in all skills.

CRIM 1631 Emergency Vehicle Operation II

1 Credit Hours

This course prepares students for advanced driving techniques. Emphasis is placed upon safe driving practices, vehicle dynamics and tires, emergency vehicle operation, in-car response to simulated driving skills and emergency situations.

Prerequisite: Enrollment by consent of instructor.

CRIM 1642 Criminal Procedures I

1 to 3 Credit Hours

This course is designed to instruct the students in basic course procedure and systems and to give them working knowledge of the Criminal Justice system.

CRIM 1647 Narcotics Investigation

1 to 3 Credit Hours

This course instructs the student about laws relating to narcotics and dangerous drugs. It also covers procedures and problems in investigations and control of violations. It teaches identification and effects of narcotics and dangerous drugs and also procedures in case preparation and presentation in court.

Prerequisite: Enrollment by consent of instructor.

CRIM 1648 Law Enforce Ops and Procedures

3 Credit Hours

Examines the role of police in society and the application of key concepts to policing scenarios. Students identify, discuss and assess critical police practices and processes to include deployment, arrest procedures, search strategies and other operational considerations.

CRIM 1650 Corrections Internship

1 to 3 Credit Hours

Individual study in a specialized area of the criminal justice corrections system with emphasis on practical experience in one or more of the operational agencies.

Prerequisite: CRIM 1651 Introduction to Corrections or JUST 1651 and consent of instructor.

CRIM 1651 Introduction to Corrections

1 to 3 Credit Hours

This is an introductory study of the field of corrections. It covers the correctional process in probation, institutions, and parole. It also covers a survey of correction careers and correction theories.

CRIM 1652 Judicial Internship

1 to 3 Credit Hours

Individual study in a specialized area of the criminal justice system with emphasis on practical experience in one or more of the operational agencies.

Prerequisite: CRIM 1600 Intro to Criminal Justice or consent of instructor.

CRIM 1655 Law Enforcement Internship

1 to 3 Credit Hours

Internship in law enforcement is designed to acquaint the pre-service student with the basic operations of a law enforcement agency, and to allow the in-service student the opportunity to further develop knowledge of the agency.

Prerequisite: CRIM 1606 Intro to Law Enforcement AND CRIM 1600 Intro to Criminal Justice and consent of instructor.

CRIM 1658 Police Firearms**1 to 3 Credit Hours**

This course is designed to give police officers or potential officers valuable insight in handling police firearms. All students will be given instruction in all aspects of firearms safety, firearms operation, marksmanship, and knowledge of firearms.

Prerequisite: Consent of coordinator and need to pass a criminal background check.

CRIM 1659 CJ Interview & Report Writing**3 Credit Hours**

Focuses on the unique types of writing required in a criminal justice career. Students are required to gather pertinent information and then record that information by writing a variety of report narratives representative of those prepared by individuals working in a profession within the criminal justice system.

CRIM 1661 Criminal Procedures**3 Credit Hours**

Introduces basic court system procedures and the jurisdiction of the courts. It also focuses on the constitutional and other legal requirements that affect law enforcement practices and procedures. Specific topics include confessions and interrogations, identification procedures, arrest, search and seizure, and admissibility of evidence.

CRIM 1665 Accident Investigation**1 to 3 Credit Hours**

This course is designed to help law enforcement students to learn the proper procedure of working accident scenes. It will teach use of different systems of drawing accident scale systems and use of triangulation and various equipment at the accident scene. This course is designed to help law enforcement students learn the proper procedure of working accident scenes. It will teach use of different systems of drawing accidents to scale. The use of triangulation and other advanced equipment used to work accident scenes will also be included.

CRIM 1667 Crime Scene Investigation**1 to 5 Credit Hours**

This course teaches the techniques in the collection, presentation, analysis and interpretation of physical evidence: footprints, tool marks, hair, blood, fibers, stain, handwriting, fingerprints, and ballistics. This includes scene searches, recording, and some photography.

CRIM 1668 Police Defense Tactics**1 to 3 Credit Hours**

This course is designed to consider the purpose and methods of defensive tactics for police officers, and the identification of police hazards and effective techniques in coping with them. It teaches one to observe persons, places, and incidents as well as techniques to handle them.

CRIM 1680 Human Relations in Law Enforce**0.5 to 1 Credit Hours****CRIM 1685 Criminal Justice Capstone****3 Credit Hours**

This capstone course will review the criminal justice system and require the student to apply all previously learned concepts through simulations and research. It will also emphasize strategies for seeking, work ethics, teamwork, resumes and job interviewing skill.

CRIM 1686 Agency Administration**3 Credit Hours**

Conducts a practical analysis of modern administration theory and supervisory, management principles and their application to the unique operating problems of criminal justice organization.

DANCE**DANC 1001 Perform w/Barton Dance Theatre****1 to 3 Credit Hours**

This course is a performance course designed for the pre- professional dance student to rehearse and perform with the Barton Dance Theater, the resident company of the Barton Department of Dance as a company member or apprentice. **RESTRICTION:** By Audition Only.

Fulfills: Performance Course, Physical Education Requirement

Prerequisite: By audition only

DANC 1020 Modern Dance I**2 Credit Hours**

This course is a beginning level class in the practice of modern dance technique. Students will learn concepts in alignment, placement, body conditioning for dance, neuromuscular coordination and control and concepts in manipulating the elements of movement: space, time, and force/energy. Students will work creatively to create original dance combinations. Floor exercises, standing center floor exercises, center floor movement combinations and across the floor combinations will prepare the beginning student to practice and create in concert date.

DANC 1030 Modern Dance II**1 to 3 Credit Hours**

This course is an intermediate level class in the practice of modern dance technique. Students will learn concepts in alignment, body placement with special awareness, neuromuscular coordination, and intermediate skills in manipulating elements of movement: time, space, and force/ energy. Students will work creatively to create original dance combinations and manipulate those combinations by applying knowledge of space, time, and force. Floor exercises, standing center floor exercises, center floor movement combinations, across the floor combinations, and choreography combinations will prepare the student to practice and create in concert dance.

Prerequisite: DANC 1020 Modern Dance I with a grade of D or better

DANC 1035 Ballet I**2 Credit Hours**

This course is a beginning level class in Cecchetti Ballet Technique. Students will learn a variety of basic exercises, combinations, and poses, ballet terminology through vocalization and spelling techniques, and a spatial awareness of the body in regards to the dance space.

DANC 1100 Jazz Dance I**1 to 2 Credit Hours**

This course is a beginning class in Jazz Dance Technique. This class will develop the skills required for an understanding and a proficiency in the beginning technical level of a dancer training in the dance genre of jazz. Rhythm, jazz isolations, different styles and more complex neuromuscular coordination will be explored.

DIESEL MECHANICS**DSEL 1505 Diesel Engine Fuel Mgmt System****1 to 4 Credit Hours**

This course is designed to acquaint the student with the theory of operations and application of both mechanical and electronic diesel fuel systems used on today's diesel engines.

DSEL 2503 Vehicular Repair Shop Mgmt**1 to 3 Credit Hours****DSEL 2595 Special Problem in Diesel Mech****1 to 5 Credit Hours****DSEL 2596 Studies in Diesel Mechanics****1 to 3 Credit Hours**

Course Descriptions

DIETARY MANAGER ASSISTANT

DIET 1630 Sanitation & Mgmt of Food Serv 3 Credit Hours

This course is a study of sanitation, management of food services, safety, receiving, storage, food protection, personnel standards, chemicals, HACCP, crisis management, quality control, customer/client preferences, meal service, food quality, standardized recipes, forecasting, equipment, cooking procedures, work simplifications, menus, purchasing, cost control, budget control, quality improvement, specifications, marketing, policies and procedures, and state and federal regulations.

DIET 1631 Nutrition Therapy 2 Credit Hours

This course is a study of basic nutrition and medical nutrition therapy and includes digestion, food preferences, nutrition screening, nutrition assessment, physicians' orders, menus, supplemental feedings, modified diets, continuous quality improvement, medical records, nutrient intake calculation, and state and federal regulations.

DIET 1632 Human Resource Management 3 Credit Hours

The study of human resource management including scheduling, staffing, corrective action, performance appraisal, policies and procedures, ethics, training, problem solving, ethnic diversity, communication and professional development.

DIET 1633 Fld Exp Sani & Mgt of Food Sys 3 Credit Hours

This course offers field experience in the study and application of sanitation principles, food protection, HACCP guidelines, safety inspections of food preparation equipment and use by employees to meet regulatory guidelines. This course is to be completed in the student's participating facility and part of which is completed under the supervision of a Registered Dietitian preceptor.

Prerequisite: concurrent enrollment in DIET 1630 Sanitation & Mgmt of Food Serv

DIET 1634 Field Experience in Nutrition 3 Credit Hours

This course offers field experience in the study and application of nutrition therapy through modified diets, nutrition screening, and nutrition assessments. This course is to be completed in the student's participating facility and part of which is completed under the supervision of a Registered Dietitian preceptor.

Prerequisite: concurrent enrollment in DIET 1631 Nutrition Therapy

DIET 1635 Fld Exp in Human Resources Mgt 2 Credit Hours

This course offers field experience in the study and application of personnel management, policies, evaluation and communication within a foodservice department. The course is to be completed in the student's participating facility and part of which is completed under the supervision of a registered dietitian preceptor.

Prerequisite: concurrent enrollment in DIET 1632 Human Resource Management

DRAFTING

DRAF 1800 Technical Drafting I 1 to 3 Credit Hours

An exploratory course in the study of drafting fundamentals and techniques. The work is related to industrial job applications in the following areas: orthographic, projections, sketching, sectional views, pictorial representation, dimensioning, working drawings, basic descriptive geometry, freehand and mechanical lettering.

DRAF 1840 Computer Aided Draft/Design I 3 Credit Hours

This course is a study of the basic elements in Computer Aided Drafting and Design. Instruction in the computer, software, digitizer, and plotter will be presented. Selected drawings and design problems in engineering, architecture, and mechanical parts will be constructed.

Prerequisite: Consent of instructor.

DRAF 1841 Computer Aided Draft/Design II 3 Credit Hours

This course is a continuation of instruction in the use of the computer and how it is utilized in the field of drafting and design. Selected drawings and design projects will be constructed to provide the student with depth in the area of drawing using a computer and how it is used in the industry.

Prerequisite: DRAF 1840 Computer Aided Draft/Design I

DRAF 1843 Descriptive Geometry 3 Credit Hours

This course involves an examination of the graphical solution to problems involving points, lines and planes in space. This will include principal, primary, and oblique views, intersections, warped surfaces, and surface developments.

DRAF 2826 Blueprint Reading 1 to 3 Credit Hours

A course designed for the tradesman who needs to upgrade his present skills and better understand how to read blueprints. The study of basic drawing theory, interpretation of lines, symbols, parts lists, schedules, and reference materials will be included.

DRAF 2839 Introduction to CADD 3 Credit Hours

This course is designed to provide students the foundation of skills needed to utilize the basic commands of computer aided drafting and design software. The drafting technology program utilizes an industry standard software package. This course will give students the head start needed to acquire more advanced skills in following sequenced courses.

ECONOMICS

ECON 1607 Introduction to Economics 3 Credit Hours

A basic one semester terminal course for students not in economics or business administration. Essential economic theory is developed and applies to scarcity, competition and monopoly, unemployment, inflation, and the economic role of government.

Fulfills: Breadth course AA, AS, AGS,AAS, Social Science Requirement

ECON 1610 Principles of Macroeconomics 3 Credit Hours

An introduction to the basic history, principles, and problems of modern economics; determinants of national income, employment, resource allocation, and price level; the monetary and banking system; and economic instability.

Fulfills: Breadth course AA, AS, AGS,AAS, Social Science Requirement

ECON 1611 Prin of Macroeconomics -Honors 3 Credit Hours

ECON 1612 Principles of Microeconomics 3 Credit Hours

An introduction to the market mechanism, price and distribution theory, public policy, international growth, and contemporary economic issues.

Fulfills: Breadth course AA, AS, AGS,AAS, Social Science Requirement

ECON 1613 Prin of Microeconomics-Honors 3 Credit Hours

An introduction to the market mechanism, price and distribution theory, public policy, international growth, and contemporary economic issues.

ECON 1615 Personal Finance**3 Credit Hours**

This course is primarily concerned with the management of money from the viewpoint of the individual. Topics to be covered include the consumer's credit buying, borrowing, saving and investing, the purchase of insurance, real estate and other major items, and the problems of taxation and wills.

Fulfills: Depth course AA, AS, AGS, AAS, Social Science Requirement

ECON 2615 Personal Finance**1 to 3 Credit Hours**

This course is primarily concerned with the management of money from the viewpoint of the individual. Topics to be covered include the consumer's credit buying, borrowing, saving and investing, the purchase of insurance, real estate and other major items, and the problems of taxation and wills.

EDUCATION**EDUC 1100 ABLE Facilitator Training****1 Credit Hours**

The facilitation training is designed to teach skills necessary to facilitate groups that are in the Adventure Education (ABLE) Program. Training will include, but is not limited to: safety procedures, debriefing techniques of activities, knowledge of games and activities, and initiative problems. The skills utilized in this training will be used throughout Adventure Education Programs as well as in the personal and professional life of the trained facilitator.

EDUC 1102 Storytelling**3 Credit Hours**

This course is designed to acquaint the student with storytelling techniques, which can be utilized in various age level classrooms. Students will learn how to choose, prepare and present appropriate stories.

EDUC 1103 Student Success**1 to 3 Credit Hours**

Introduction to the college experience through participation in small group meetings and informational lectures. Study of such topics as personal responsibility, college resources, academic skills, including communication and critical thinking, academic and career planning and goal setting, and social issues that challenge many college students.

EDUC 1104 Orientation**1 Credit Hours**

This course is required for all degree bound students and is designed to acquaint the students with the function and operation of the college including academic programs and student services. The instructional goals are intended to provide initial assistance in developing academic study skills and social awareness skills for college and life-long success.

EDUC 1128 Foundations of Modern Educ**3 Credit Hours**

The course is designed to provide the student with the groundwork for entering the teaching profession. The course will address itself to the real issues in education and place the emphasis on where the action is and where it appears likely to be in education. Supervised laboratory experiences are an integral part of the course.

EDUC 1134 Education Field Experience**2 Credit Hours**

This course is designed to give students experience in a classroom setting. Elementary and secondary students will be placed with competent teachers in areas where students have special interests. Credit is earned on the basis of time spent in the classroom and working with the supervising teacher. Teaching procedures, classroom management, and student behavior are observed and studied.

Prerequisite: EDUC 1128 Foundations of Modern Educ with a grade of C or better or concurrent enrollment in EDUC 1128 Foundations of Modern Educ or consent of instructor.

EDUC 1136 Children's Literature**3 Credit Hours**

This course is a survey of children's literature with an emphasis on how to recognize, select, and present good literature, while motivating children in the reading process. This course is recommended for students majoring in English, library science, Early Childhood and/or Elementary Education, as well as, parents of young children. This course can be utilized as a general education courses for humanities in the area of literature for students obtaining an AAS degree in Early Childhood.

Fulfills: Depth course AAS, Social Science Requirement

EDUC 1138 Career Planning**1 Credit Hours**

Students who are in the process of deciding on a major will participate in activities that are designed to guide them toward further self-awareness in regard to the world of work. The process of attaining a job will also be addressed.

EDUC 1162 Seminar in Education**1 Credit Hours**

Lower division workshop/course designed to address contemporary issues in education, including curriculum, management, merit pay, and evaluation - serving both elementary and secondary teachers.

EDUC 1163 American Sign Language**3 Credit Hours**

This course will provide academic credit for active participation in various settings. The topics vary from general information about American Sign Language, vocabulary, phrases, sentence structures, and part of course outline or method of evaluation.

EDUC 1170 Jumpstart**3 Credit Hours**

This course is designed to prepare incoming freshman needing developmental courses for intermediate level or college level coursework.

EDUC 2163 American Sign Language**1 to 3 Credit Hours**

This course will provide academic credit for active participation in various settings. The topics vary from general information about American Sign Language, vocabulary, phrases, sentence structures, and part of course outline or method of evaluation.

ELECTRICITY**ELEC 1330 DC Circuit Fundamentals****3 Credit Hours**

The course is designed to acquaint students with the fundamentals of direct current (DC); circuits, the relationship between voltage, current, resistance, and power, the application Ohm's and Kirchoff's laws.

Prerequisite: MATH 1806 Technical Mathematics with a grade of C or better

ELEC 1332 AC Circuit Fundamentals**4 Credit Hours**

This course teaches students the fundamentals of Alternating Current (AC), including magnetism, waveforms, oscilloscopes, function generators, capacitance, inductance, reactance, impedance, resonance, power supplies, transformers, RC circuits, RL circuits, and filters.

Prerequisite: ELEC 1330 DC Circuit Fundamentals with a grade of C or better

ELEC 2304 Transformers & DC Motors**1 to 3 Credit Hours**

A second-level course in fundamental electrical principles involving the study of DC and AC machinery, including shunt and compound-wound DC generators; shunt, series and compound-wound DC motors; single-phase and poly-phase delta and wye transformer connections; instrument transformers; connections and parallel operation of three-phase alternators; squirrel-cage induction motors and starters; and single-phase motors.

Course Descriptions

EMERG MGMT -HOMELAND SECURITY

EMHS 1100 Introduction to Terrorism 1 to 3 Credit Hours

This course serves as a basic introduction to terrorism. Historical background, definitions, tactics, ideologies, and terrorism's impact on twenty-first century civilization around the world will be explored. Both current and historical events are analyzed within course context to provide experiential learning and development of critical thinking skills.

EMHS 1900 Emergency Planning 1 to 3 Credit Hours

This course is designed for persons who are involved in developing an effective emergency planning system. The course offers training in the fundamentals of the emergency planning process, including the rationale behind planning. The focus is on an effective all-hazard emergency planning operations planning process to save lives and protect property threatened by disaster.

EMHS 1905 Dev & Managing Volunteer Res 1 to 3 Credit Hours

This course offers training in identifying volunteer resources and recruiting, assigning, training, supervising, evaluating, and motivating volunteers. The course also addresses coordinating with voluntary agencies, Voluntary Organizations Active in Disaster (VOAD), community-based organizations such as church groups, food banks, professional groups, as well as business and industry. Special issues such as spontaneous volunteers, stress management and legal issues of volunteers are also addressed. "This course does not address volunteer firefighters because of the vast technical scope of the topic."

EMHS 1906 Exercise Design, Mgmt & Eval 1 to 3 Credit Hours

This course is designed to introduce students to the fundamentals of emergency management exercise design, management and evaluation. Students will design an exercise, identify the logistics necessary for execution and management of the exercise, and develop an exercise evaluation plan. Students will also be introduced to the concept of a comprehensive exercise program used to improve on the four phases of emergency management. The course instruction will follow and meet the guidelines established by the Federal Emergency Management Agency exercise design and evaluation courses and the Department of Homeland Security Exercise and Evaluation Program.

EMHS 1907 Haz Mat Response Operations 3 Credit Hours

This course provides students with the skills needed to manage or respond to a hazardous materials incident at the awareness or operations level. Topics include Hazardous Materials Laws, Regulations and Standards, Recognitions and Identification, Information Resources, Protection, Protective Actions, Product Control and Air Monitoring, Terrorism Awareness, HAZMAT and Law Enforcement issues. The course follows National Fire Prevention Agency (NFPA) 472 guidelines.

EMHS 1908 Mitigation for Emergency Mgmt 3 Credit Hours

This course is designed to introduce students to the fundamentals of mitigation as a means to reduce hazard risks to our communities and citizens.

EMHS 1909 Basic Skills Emergency Manager 3 Credit Hours

This course is designed to improve the first responders and emergency managers skills in the areas of leadership and influence, decision-making and problem solving, and communication.

EMHS 1910 Emergency Management Seminar 3 Credit Hours

This course is designed to explore the issues and strategies of emergency management in the following key areas: Legal Issues, Policy & Politics, Organizational Management, Historical and Current Situations, and Economics of Emergency Management.

EMHS 1952 Basic Incident Command System 1 to 3 Credit Hours

This course is designed to train students in the basic levels of the Federal Emergency Management Agency (FEMA) Incident Command System (ICS) and the National Incident Management System (NIMS). Students will manage resources and personnel for incidents ranging from ceremonies to natural disasters. The course instruction will follow and meet the guidelines established by the (FEMA) courses IS100, IS200, and IS700.

EMHS 1953 Adv Incident Command SystemEOC 1 to 3 Credit Hours

This course is designed to train students in the intermediate and advanced levels of the Federal Emergency Management Agency (FEMA) Incident Command System (ICS) and the Emergency Operations Center (EOC) Interface. Students will manage resources and personnel for level 3 and 4 incidents. The course instruction will follow and meet the guidelines established by the (FEMA) courses IS/G 300, IS/G 400, and IS 191.

EMHS 1962 Disaster Site Worker 3 Credit Hours

This course will train students in accordance with OSHA regulations pertaining to construction standards and Safety for Disaster Site Workers that are set forth in the Code of Federal Regulations (CFR) 29, part 1926. This course will also introduce students to the operational skills and procedures required to provide support services, (e.g. utility, demolition, debris removal, or heavy equipment operation) or site clean-up services in response to natural and man-made disasters. All workers at disaster sites need to be aware of the differences between disaster sites and regular construction or demolition worksites and to be able to determine appropriate protective measures for ensuring disaster site worker safety.

EMHS 1963 Intro to Emergency Management 3 Credit Hours

This course provides emergency preparedness personnel with an overview of the skills needed at the community and state levels for emergency operations involving all hazards. This class is appropriate for business and industry, firefighters, Emergency Managers, EMS, police and other interested parties.

EMHS 1964 Comm Emergency Response Team 1 to 2 Credit Hours

This course provides the student with the skills required by Federal Emergency Management Agency (FEMA) to serve as a Citizen Emergency Response Team (CERT) member within their community. Training is to provide the private citizens who complete this course with the basic skills they will need to respond to their community's immediate needs in the aftermath of a disaster when emergency services are not immediately available. By working together, CERTs can assist in saving lives and protecting property using the basic techniques in this course.

EMERGENCY MEDICAL TRAINING

EMTS 1500 Emergency Medical Technician 1 to 12 Credit Hours

This course emphasizes the development of student skills in recognition of symptoms of illnesses and injuries and proper procedures of pre-hospital emergency care. Each lesson allows practice of specific skills as appropriate test and evaluation sessions are designed to assure proficiency levels in all skills. This course covers all the fundamental skills, and attitudes necessary for certification and practice as a nationally registered EMT-B in Kansas.

EMTS 1502 EMT & Refresher Seminar I 0 to 1 Credit Hours

This course is designed to maintain certification of the Emergency Medical Training Certificate.

EMTS 1504 EMT & Refresher Seminar II 0.5 to 2 Credit Hours

This course is designed to maintain certification of the Emergency Medical Training Certificate.

EMTS 1506 EMS Instructor/Coordinator 1 to 9 Credit Hours

This course provides the student with the necessary skills, knowledge, and attitudes to obtain endorsement as a Kansas Board of EMS Training Officer and Instructor Coordinator. This course exceeds the approved curriculum recommended by the National Association of Emergency Medical Services Educators.

EMTS 1512 Cardio-Pulmonary Resuscitation 0.5 or 1 Credit Hours

This course is designed to teach anatomy and physiology of the heart. It will also cover risk factors and teach people how to treat people who are biologically dead. It will also cover the proper procedure for an obstructed airway in addition to teaching people to help in crisis situations.

EMTS 1513 Advanced ER Medical Technician 1 to 10 Credit Hours

The Kansas Board of Emergency Medical Services has approved this program. It addresses information and techniques currently considered the responsibility of the AEMT according to the United States Highway Traffic Safety Council with Kansas enrichments. The program consists of didactic (lecture) instruction, practical skills training, and clinical experience.

Prerequisite: Kansas Certified EMT

EMTS 1514 EMT-Defibrillation (EMT-D) 1 to 3 Credit Hours

The EMT-D course consists of didactic, laboratory and clinical phases. Each is critical is the education of the EMT-D. The didactic portion involves classroom activities utilizing lecture, discussion, demonstration and audio-visuals to establish a baseline knowledge on which skills proficiency can be attained. The laboratory phase allows the student to learn and practice "hands-on" skills until techniques are mastered, a minimum of twenty (20) contact hours. The clinical experience provides the student an opportunity to observe and possibly apply newly learned skills in a clinical setting. This time will vary depending on the size of the medical facility used. A minimum of twenty (20) hours will be established.

Prerequisite: Kansas Certified EMT

EMTS 1519 Cardiology/Electrocardiography 1 to 4 Credit Hours

This course provides the student with the pathophysiology, and recognition of acute and chronic cardiovascular disease processes. Basic electrocardiography, with emphasis on clinical application, provides the student with an understanding of the electrocardiogram. Included in this course is an understanding of atrial, junctional and ventricular dysrhythmias, atrio-ventricular blocks, disorders of rate and rhythm and introduces the student to the twelve-lead electrocardiogram in acute and chronic disease processes that affect the electrical and mechanical activity of the heart. Pulmonary function is also studied during this class.

EMTS 1520 Basic Pharmacology 1 to 3 Credit Hours

This course is designed to teach the physiological effects and clinical use of medications that may be administered in management of acutely ill or injured patients, as well as general knowledge of use, action, dosage, side effects, contraindications, mode of administration and antidotes. Medications, body fluids, electrolytes, acid-base balance, and parenteral therapy are introduced in this module through lecture and psychomotor skills practice.

EMTS 1524 PreHosp Trauma Life Suppt-P 1 Credit Hours

This course is designed to further advance the knowledge and skill of students in delivering critical care in the pre-hospital environment.

EMTS 1527 Emergency Medical Responder 1 to 7 Credit Hours

This program is designed for individuals interested in providing medical care to patients in the pre-hospital setting. The program will provide the participant with opportunities to gain information, skills, and attitudes necessary for certification and practice as a Kansas First Responder.

EMTS 1540 Paramedic I 3 to 20 Credit Hours

This course is intended to make students aware of Emergency Medical Services as a total systems concept. It further identifies the MICT concept, function, roles and responsibilities of the MICT within the system as well as the legal aspects of prehospital medicine and an introduction to legislation affecting prehospital medicine. This course will also expose the student to the basics of anatomy and physiology of the human body. All aspects of EMS communications will be reviewed, to include medical terminology, radio technology, verbal and written communication. This course covers the physiologic effects and clinical applications for pharmacology in the prehospital setting. Students will learn to recognize, assess, and manage emergency situations that result from external mechanisms of injury and the pathophysiology involved in traumatic injuries. This course adheres to Kansas Administrative Regulations (K.A.R.), Article 10 Section 109-10-5.

Prerequisite: EMTS 1500 Emergency Medical Technician and consent of instructor.

EMTS 1541 Paramedic II 3 to 20 Credit Hours

This course provides students with the pathophysiology, recognition and management of acute and chronic cardiovascular disease processes. Basic interpretation of electrocardiography and introduced to the twelve-lead electrocardiogram as it applies to diagnosis of acute myocardial infarction. The course covers the diagnosis, etiology and field treatment of patients of various medical emergencies. This course adheres to Kansas Administrative Regulations (K.A.R.), Article 10 Section 109-10-5.

Prerequisite: EMTS 1540 Paramedic I and consent of instructor.

EMTS 1542 Paramedic III 3 to 20 Credit Hours

Students successfully completing the MICT II of the paramedic training program will be allowed to participate in MICT III, the hospital clinical rotation module. The purpose of this portion is to provide students with an opportunity to apply the practical application of patient assessment and management under the supervision of nurses, physicians and paramedic training staff. This course adheres to Kansas Administrative Regulations (K.A.R.), Article 10 Section 109-10-5.

Prerequisite: EMTS 1541 Paramedic II and consent of instructor.

EMTS 1543 Paramedic IV 12 to 20 Credit Hours

Students successfully completing the MICT III of the paramedic training program will be allowed to participate in MICT IV, the field internship rotation module. The purpose of this portion is to provide the student with an opportunity to apply the practical application of patient assessment and management under the supervision of field paramedics in a real life environment. Students will also become prepared to test for state and national certification as a paramedic. This course adheres to Kansas Administrative Regulations (K.A.R.), Article 10 Section 109-10-5.

Prerequisite: EMTS 1542 Paramedic III and consent of instructor.

EMTS 1550 EMS Training Officer I (TOI) 1 Credit Hours

This course provides the student with the necessary skills, knowledge, and attitudes to obtain endorsement as a Kansas Board of EMS TOI. This program has been approved by the Kansas Board of EMS and addresses techniques currently considered to be the responsibilities of the TOI according to the Kansas BEMS.

EMTS 1551 EMS Training Officer II (TOII) 2 Credit Hours

This course provides the student with the necessary skills, knowledge, and attitudes to obtain endorsement as a Kansas Board of EMS TOII. This program has been approved by the Kansas Board of EMS and addresses techniques currently considered to be the responsibilities of the TOII according to the Kansas BEMS.

Course Descriptions

EMTS 1555 Stress Mgmt for Emergency Work **3 Credit Hours**

This course describes the consequences of repeated stress and trauma witnessed and experienced by the emergency worker. The student will be introduced to management skills that allow individuals to be better prepared to handle exposure to trauma and stress present in the Emergency Services workplace.

EMS ADMINISTRATION

EMSA 1100 EMS Systems **3 Credit Hours**

This course will provide the student with an introduction to Emergency Medical Systems (EMS). The student will gain insight on the functions and principals of EMS systems throughout America.

EMSA 1105 Media Relations in EMS **3 Credit Hours**

This course will provide the student with the knowledge and skills related to Media Relations within the Emergency Medical Services (EMS) field. The student will gain an understanding of the different types of media and how to communicate with the different media outlets.

EMSA 1106 History of EMS **1 Credit Hours**

This course will provide the student with an in-depth history of Emergency Medical Services (EMS) in America. Students will gain knowledge of the first EMS systems in America and the evolution of EMS to the system as we know it today.

EMSA 1107 EMS Education I **1 to 3 Credit Hours**

This class is part of the EMS Administrative Degree and is the prerequisite to EMSA 1108, EMS Education II. This class gives the student a beginning understanding of the fundamentals of educational philosophies and principles. It also provides the participant with opportunities to gain information and application of fundamentals of administering an EMS program.

EMSA 1108 EMS Education II **1 to 3 Credit Hours**

This class is part of the EMS Administrative degree and gives the student an understanding of the fundamentals of educational philosophies and principles. It will provide the participant with opportunities to gain information and application of those principles along with learning how to establish an EMS program.

EMSA 1109 EMS Supervision & Operations **1 to 3 Credit Hours**

EMSA 1110 EMS Law & Ethics **1 to 3 Credit Hours**

This course will provide the student with an introduction to Emergency Medical Systems (EMS) Laws and Ethics. The student will gain insight to the functions and principles of the American legal system as it applies to EMS providers throughout America.

ENGLISH

ENGL 1105 ESOL Lab **1 Credit Hours**

A course designed to help non-native speakers increase their fluency in the English language through a computer based program designed to improve English pronunciation and listening and speaking skills.

Fulfills: Developmental Course

ENGL 1107 Dir Ind Study/English **1 to 3 Credit Hours**

A structured learning experience offered as an extension of the regular curriculum. It is intended to allow students to broaden their comprehension of the principles of, and their grasp of competencies associated with academic, nonvocational disciplines. Its purpose is to supplement extant English courses with individualized, in-depth learning experiences. Such learning experiences may be undertaken independent of the traditional classroom setting, but will be appropriately directed and supervised by regular instructional staff.

Fulfills: Depth course AA, AS, AGS, AAS, Humanities Requirement

ENGL 1108 ESOL Conversational English **1 Credit Hours**

A course in the development of speech skills, the pronunciation of English and English sentence patterns, and finding meaning in spoken English. Students will practice listening strategies to assist in comprehension, expand their vocabulary, and participate in small group discussions. Through a variety of practice activities, the student will learn to integrate English sounds, stress, rhythm, and intonation into clear, fluent speech. Students will be introduced to slang, idioms, and informal words and expressions as encountered in everyday conversation.

Fulfills: Developmental Course

ENGL 1109 ESOL Academic Vocabulary **1 Credit Hours**

A course designed to help the non-native speaker increase his/her knowledge of the form, meaning, use, and pronunciation of the most common academic vocabulary words used in textbooks and by instructors. Students will learn how to use context clues and word parts to help decode meanings of new words. Students will practice and review academic words in written and spoken exercises.

Fulfills: Developmental Course

ENGL 1110 ESOL Sentence Structure **1 Credit Hours**

A course designed to help the non-native speaker improve his/her writing skills in English. The student will study the parts of speech, grammar, subject/verb agreement, and the mechanics of English sentence structure.

Fulfills: Developmental Course

ENGL 1111 Intro to English Language **3 or 6 Credit Hours**

A course in the development of speech skills, the pronunciation of English and English sentence patterns, some English reading comprehension, and an understanding of American customs and diversity. An introductory English class with emphasis on survival skills, it is open to all students whose first, primary or home language is not English, regardless of the student's age, place of residence ethnic background, academic plans or previous educational attainment.

Fulfills: Developmental Course

Prerequisite: Student's statement that Spanish is his or her primary language, AND a Reading ASSET score below 38 and/or a Writing ASSET score below 40 and/or an Accuplacer Reading score below 67 and/or an Accuplacer sentence skills score below 69. There is no requirement that the student know any English before enrolling.

ENGL 1112 English as a Second Language **2 Credit Hours**

A course in the development of speech skills, the pronunciation of English and English sentence patterns, some reading comprehension, and an understanding of American customs. A basic oral English class with emphasis on survival skills, it is open to all foreign students, regardless of age.

Fulfills: Developmental Course

Prerequisite: Student's statement that English is not her/his primary language, AND a Reading ASSET score below 38 and/or a Writing ASSET score below 40 and/or an Accuplacer Reading score below 67 and/or an Accuplacer sentence skills score below 69. There is no requirement that the student know any English before enrolling.

ENGL 1113 English Study Skills**1 Credit Hours**

The course is intended to meet the individual needs of the student who desires to improve his reading, increase his vocabulary, and sharpen his study skills in order to succeed in college. A variety of materials and techniques will be made available to the student to meet his or her needs. This course is designed so that anyone can benefit from it, but especially it will help those who are new to the college life or who seriously want to improve their skills. Frequent instructor-student conferences are held as the student progresses.

Fulfills: Developmental Course**ENGL 1120 English-Speak Other Languages****3 Credit Hours**

This course provides beginning English language learners with an integrated English communication experience. Students will develop skills in speaking, listening, reading and writing. Areas of study and practice will include commonly-used sounds; essential academic and social vocabulary; simple sentence structure; simple paragraphing; conversation; reading aloud; and public speaking. The class will also help new international students with their adjustment to attending college in the United States by addressing cultural differences, coping skills, and study skills.

Fulfills: Developmental Course

Prerequisite: Student's statement that English is not his/her primary language, AND a Reading ASSET score below 38 and/or a Writing ASSET score below 40 and/or an Accuplacer Reading score below 67 and/or an Accuplacer sentence skills score below 69. There is no requirement that the student know any English before enrolling.

ENGL 1121 English Speakers Other Lang II**3 Credit Hours**

In this intermediate-level course, students will work to improve their pronunciation, listening and reading comprehension, understanding of progressive and perfect verb tenses, public speaking effectiveness, sentence variety, and paragraph development.

Fulfills: Developmental Course**ENGL 1122 English Speakers Other LangIII****3 Credit Hours**

In this higher level course, students will work toward greater fluency in Standard English. Areas of concentration will include accent reduction, vocabulary building, use of phrasal verbs, understanding of active and passive voice, and basic essay skills.

Fulfills: Developmental Course**ENGL 1125 ESOL Conversational English II****1 Credit Hours**

A course in the development of speech skills, the pronunciation of English and English sentence patterns, and finding meaning in spoken English. Students will practice listening strategies to assist in comprehension, expand their vocabulary, and participate in small group discussions. Through a variety of practice activities, the student will learn to integrate English sounds, stress, rhythm, and intonation into clear, fluent speech. Students will be introduced to slang, idioms, and informal words and expressions as encountered in everyday conversation.

Fulfills: Developmental Course**ENGL 1126 ESOL Academic Vocabulary II****1 Credit Hours**

A course in the development of speech skills, the pronunciation of English and English sentence patterns, and finding meaning in spoken English. Students will practice listening strategies to assist in comprehension, expand their vocabulary, and participate in small group discussions. Through a variety of practice activities, the student will learn to integrate English sounds, stress, rhythm, and intonation into clear, fluent speech. Students will be introduced to slang, idioms, and informal words and expressions as encountered in everyday conversation.

Fulfills: Developmental Course**ENGL 1127 ESOL Sentence Structure II****1 Credit Hours**

A course designed to help the non-native speaker improve his/her writing skills in English. The student will study the parts of speech, grammar, subject/verb agreement, and the mechanics of English sentence structure.

Fulfills: Developmental Course**ENGL 1190 Basic English****3 Credit Hours**

This course includes individualized and group instruction in language. Emphasis is placed on basic techniques designed to elicit effective reading and writing skills appropriate for the college level. The course content ranges from developing vocabulary and improving spelling to structuring sentences.

Fulfills: Developmental Course**ENGL 1194 Intermediate English****3 Credit Hours**

This course, designed for students with special needs, concentrates on improving language and writing skills necessary for successful performance in all college courses and in most careers.

Fulfills: Developmental Course

Prerequisite: ENGL 1190 Basic English with a grade of C or better or ASSET Writing Skills score of at least 30 or ACT English score of at least 11 or SAT Verbal score of at least 270 or Accuplacer Writing Skills score of at least 40

ENGL 1199 Principles Grammar Form & Style**3 Credit Hours**

Principles of Grammar, Form, and Style, ENGL 1199, includes a study of the parts of speech, phrases, clauses, sentence structure, and paragraph form. In this course, students should acquire and apply the basic skills, techniques, and attitudes necessary to compose college-level writing. This course is especially helpful for students who will be required to complete more advanced tasks in written communication at the business, professional, or college level - most immediately, in English Composition I or II.

ENGL 1200 Business English**1 to 3 Credit Hours**

This course stresses correct word usage, grammatical structure, punctuation and mechanics, and gives the students practice in writing various types of business communications. The course is recommended for business students who need more experience in Business English prior to their work experience.

Fulfills: Foundation Course AAS, Written Communication Reqrmt

Prerequisite: ENGL 1190 Basic English with a grade of C or better or ASSET Writing Skills score of at least 30 or ACT English score of at least 11 or SAT Verbal score of at least 270 or Accuplacer Writing Skills score of at least 40 or Work Ready Skills score of at least 4

ENGL 1203 English Composition I Honors**3 Credit Hours**

An approach to purposeful writing stressing self-expression through written communication by logical presentation of ideas with emphasis on content, organization, and mechanics.

Prerequisite: Notification of selection based on test scores.**ENGL 1204 English Composition I****3 Credit Hours**

An approach to purposeful writing stressing self-expression through written communication by logical presentation of ideas with emphasis on content, organization, and mechanics.

Fulfills: Foundation Course AA,AS,AGS,AAS, Written Communication Reqrmt

Prerequisite: (ENGL 1194 Intermediate English with a grade of C or better or ASSET Writing Skills score of at least 40 or ACT English score of at least 17 or SAT Verbal score of at least 360 or Accuplacer Writing Skills score of at least 69 or Compass Writing Skills score of at least 55) AND (READ 1109 Intermediate Reading with a grade of C or better or ASSET Reading Skills score of at least 40 or ACT Reading score of at least 18 or Accuplacer Reading Skills score of at least 69 or Compass Reading Skills score of at least 75) or (ENGL 1122 English Speakers Other LangIII with a grade of C or better)

Course Descriptions

ENGL 1205 Technical and Report Writing **3 Credit Hours**

The course involves the study of various composition techniques vital to a technical or professional writer. Structure, terminology, and types of reports are studied in depth.

Fulfills: Foundation Course AAS,AGS, Written Communication Reqrmt

Prerequisite: ENGL 1204 English Composition I

ENGL 1206 English Composition II **3 Credit Hours**

This course builds on the skills mastered in the pre-requisite course and is a study of advanced problems in composition, emphasizing rhetorical and logical tools in argument development. A series of essays on controversial issues or problems, which lead to a final documented research essay, will train students both to interpret evidence well and to argue persuasively. The course will increase the student's ability to analyze and evaluate arguments and to express ideas clearly, concisely, logically and persuasively.

Fulfills: Foundation Course AA,AS,AGS,AAS, Written Communication Reqrmt

Prerequisite: ENGL 1204 English Composition I with a grade of C or better

ENGL 1207 English Composition II Honors **3 Credit Hours**

A study of advanced problems in composition emphasizing retorical skills constitutes the core of this course. A fully documented research paper will be the end result of the semesters work. By design, the course increases the student's ability to express his ideas in a clear, concise, logical sequence. A central motif, as well as a final document research paper, is explored throughout the semester involving the student in writing four or five essays. The instructor decides the number of essays.

Prerequisite: ENGL 1204 English Composition I

ENGL 1216 Creative Writing **3 Credit Hours**

A special study of forms and practice in composition for students who wish to develop particular skills in the drama, short story, and poetry. From these skills, students will be introduced to skills needed in writing the novel.

Fulfills: Depth course AA, AS, AGS, AAS, Humanities Requirement

ENGL 1236 Technical Communications **1 to 3 Credit Hours**

This course is designed primarily for the student who needs training and practice in writing skills pertaining to his own field. It will involve familiarity with the journals, with research techniques, report and letter writing, and basic mechanical skills.

Fulfills: Foundation Course AAS, Written Communication Reqrmt

Prerequisite: ENGL 1200 Business English with a grade of C or better or ENGL 1194 Intermediate English with a grade of C or better or ENGL 1199 Principles Grammar Form & Style with a grade of C or better or ENGL 1204 English Composition I with a grade of C or better or ASSET Writing Skills score of at least 40 or ACT English score of at least 17 or Accuplacer Writing Skills score of at least 69 or Compass Writing Skills score of at least 65

ENGL 2194 Intermediate English **1 to 3 Credit Hours**

This course, designed for students with special needs, concentrates on improving language and writing skills necessary for successful performance in all college courses and in most areas.

FAMILY & CONSUMER SCIENCE

HOME 1501 Basic Nutrition **1 to 3 Credit Hours**

Fundamentals of nutrition, including food nutrients, their sources, and utilization through body processes will be studied. Also diets for special needs and food fads.

HOME 2592 Renovation & Remodeling **1 to 3 Credit Hours**

This course is designed to prevent the principle and applications of general building maintenance and repair following acceptable local, state, or federal guidelines or procedures.

FIRE SCIENCE

FIRE 1200 Firefighter I **1 to 5 Credit Hours**

This course offers instruction in the skills required for basic fire fighting. Focus is on the theory of fire protection and on identifying and using equipment safely.

FIRE 1201 Dir Ind Study/Fire Science **1 to 3 Credit Hours**

An individualized plan of study that is a structured learning experience designed to supplement previous coursework. It is intended to allow students to broaden their comprehension of the principles of, and their grasp of competencies within their career discipline. Such learning experiences may be undertaken independent of the traditional classroom setting, but will be appropriately directed and supervised by regular instructional staff.

FIRE 1202 Introduction to Fire Science **1 to 3 Credit Hours**

This course is an introduction to the fire service and fire protection industry, designed to provide an overview of many factors that influence the fire protection and control services such as the history of fire protection, fire loss analysis, public, quasi-public, and private fire protection services; specific fire protection function, fire chemistry and physics.

FIRE 1203 Firefighter II **1 to 4 Credit Hours**

This course provides an opportunity for trained firefighters to continue expanding their knowledge within the fire service. Basic fire hydraulics, advanced rescue practices, firefighter safety, public fire education, fire detection systems, pre-fire planning, fire cause and determination, and building construction will be the primary focus of this course.

FIRE 1204 Fire Hydraulics **1 to 3 Credit Hours**

Review of applied mathematics; hydraulics laws as applied to the fire service; application of formulas and mental calculations to hydraulics and water supply problems.

FIRE 1206 Fire Hydraulics Lab **1 to 3 Credit Hours**

Students will use equipment, required in the fire science, in order to apply classroom-taught theory, techniques, and principles as they relate to actual situations encountered in the fire service.

FIRE 1208 Rescue Practices **1 to 3 Credit Hours**

Rescue problems and techniques; emergency rescue equipment, toxic gases; chemicals and diseases; radiation hazards; care of victims, respiration and resuscitation, extrication, and other emergency conditions.

FIRE 1210 Rescue Practice Lab **1 to 3 Credit Hours**

Application of techniques, use of equipment, rescue problems, handling hazardous materials incident basic first aid practices as they relate to fire and/or natural disasters.

FIRE 1212 Fundamental of Fire Prevention **1 to 3 Credit Hours**

Organization and functions of fire prevention; inspections; surveying and mapping procedures; recognition of fire and life hazards; engineering a solution of a fire hazard; enforcing the solution of a fire hazard; and public relations as affected by fire prevention.

FIRE 1214 Fire Investigation **1 to 3 Credit Hours**

This course instructs students with the basic skills required to determine the cause of fire. This course does not deal with arson investigation, except as it relates to fire cause determination.

FIRE 1216 Fire Apparatus and Equipment **1 to 3 Credit Hours**

Fire apparatus design, specifications, and performance capabilities; effective utilization of apparatus in fire science emergencies.

FIRE 1218 Extinguish, Detect, Alarm Sys. **1 to 3 Credit Hours**

This course introduces the student to the various types of extinguishing, detection, and alarm system (except sprinkler systems) and how they operate.

FIRE 1220 Bldg Const for Fire Protection **1 to 3 Credit Hours**

Fundamentals of building construction as it relates to fire protection. Classification by occupancy and types of construction with emphasis on fire protection features: building equipment, facilities, fire resistive materials, and high-rise considerations.

FIRE 1222 Hazardous Materials **1 to 3 Credit Hours**

This is a course on how to deal with hazardous materials from a fire protection standpoint as well as the life safety factors involved for the firefighters and citizens.

FIRE 1224 Life Safety Codes **1 to 3 Credit Hours**

This course will instruct students in reading and interpreting codes and ordinances. This course will center on The Life Safety Codes because they are used extensively in fire protection.

FIRE 1226 Fire Photography **1 to 3 Credit Hours**

This course is designed to teach and instruct firefighters the basics of photography and the special problems encountered in taking fire related photography.

FIRE 1228 Arson Investigation **1 to 3 Credit Hours**

This course is designed to instruct students in arson investigation techniques and procedures. The course will also instruct in the areas of evidence preservation, interviewing, interrogation, and course room procedures.

FIRE 1230 Municipal Fire Administration **1 to 3 Credit Hours**

This course will teach and instruct students in the techniques and methods of managing a fire department.

FOREIGN LANGUAGE**LANG 1900 Elementary German I** **3 or 5 Credit Hours**

An introductory course designed to develop the skills needed to communicate in German at a basic level in everyday situations. Throughout the course, emphasis will be placed on discussion skills, such as speaking, listening, and using cultural background information. Reading and writing skills, as well as a thorough study of basic grammatical structures, are also seen as essential to achieve the main objective of communication. Lab work, taped conversations, videos, and exercises accompanying the text reinforce classroom work. Supplementary materials to expand vocabulary and understanding of the German language cultures will be introduced at appropriate times.

Fulfills: Breadth course AA, AS, AGS,AAS, Humanities Requirement

LANG 1901 Conversational German I **3 Credit Hours**

Practice in everyday conversational German with emphasis on phrases and vocabulary useful for travelers and development of oral/aural skills in conversation on cross-cultural topics.

Fulfills: Breadth course AA, AS, AGS,AAS, Humanities Requirement

LANG 1902 Elementary German II **5 Credit Hours**

This is the second semester of German and is a continuation of Elementary German I. This course is designed to develop the skills needed to communicate in German at the basic level in everyday situations. Throughout the course, emphasis will be placed on discussion skills, such as speaking, listening and using cultural background information. Reading and writing skills, as well as a thorough study of basic grammatical structures, are also seen as essential to achieve the main objective of communication. Lab work, taped conversations and exercises accompanying the text reinforce classroom work. Supplementary materials to expand vocabulary and understanding of the German language cultures will be introduced at appropriate times.

Fulfills: Breadth course AA, AS, AGS,AAS, Humanities Requirement

Prerequisite: LANG 1900 Elementary German I or 1 year of high school German or equivalent.

LANG 1903 Conversational German II **3 Credit Hours**

Continuation of Conversational German I. Further study of spoken German and characteristics based on written text, audio-cassettes, and video-tapes relating to contemporary life in German-speaking countries.

Fulfills: Breadth course AA, AS, AGS,AAS, Humanities Requirement

LANG 1904 Intermediate German I **3 Credit Hours**

This course is a continuation of Elementary German II, using the same text.

Fulfills: Depth course AA, AS, AGS, AAS, Humanities Requirement

Prerequisite: LANG 1902 Elementary German II

LANG 1905 Intermediate German II **3 Credit Hours**

This course is a continuation of Intermediate German I, using the same text.

Fulfills: Depth course AA, AS, AGS, AAS, Humanities Requirement

Prerequisite: LANG 1904 Intermediate German I or 2-3 years of high school German or equivalent.

LANG 1908 Elementary Spanish I **5 Credit Hours**

An introductory course in Spanish in which four language skills are emphasized; initially listening and speaking, followed by reading and writing. Correct grammar, vocabulary, and pronunciation are stressed and mastered through exposure and practice in the language lab. Introduction to Hispanic culture and civilization through history, arts, literature, and cultural settings is included.

Fulfills: Breadth course AA, AS, AGS,AAS, Humanities Requirement

LANG 1909 Conversational Spanish **3 Credit Hours**

The student will be exposed to some 1200 high frequency words used in the Hispanic world including Mexico, all of South America, Cuba, and Spain. The student will be required to understand the Spanish thought processes and verbalize these thoughts. The student will be able to ask for the necessities of life if he or she were in an environment where Spanish was a necessary tool.

Fulfills: Breadth course AA, AS, AGS,AAS, Humanities Requirement

Course Descriptions

LANG 1910 Elementary Spanish II **5 Credit Hours**

A second semester in Spanish. Reading and writing skills are emphasized with listening and speaking skills included. Pronunciation is stressed. Some Hispanic culture is presented.

Fulfills: Breadth course AA, AS, AGS,AAS, Humanities Requirement

Prerequisite: LANG 1908 Elementary Spanish I or Spanish placement score of at least 370

LANG 1911 Spanish for Communication **1 to 3 Credit Hours**

A course designed for oral communication with a minimum of grammar and written instruction. Designed for two-year students in social work, agriculture, and business with individualized material for each area.

Fulfills: Depth course AA, AS, AGS, AAS, Humanities Requirement

LANG 1912 Intermediate Spanish I **3 Credit Hours**

This is the third semester of Spanish and is a continuation of Elementary Spanish II. There will be a brief review followed by further study of grammar and pronunciation. Students will be expected to increase their activity in speaking and in writing original work. Additional books will be used to supplement the text. The study of Spanish culture and influence will continue.

Fulfills: Depth course AA, AS, AGS, AAS, Humanities Requirement

Prerequisite: LANG 1910 Elementary Spanish II

LANG 1913 Intermediate Spanish II **3 Credit Hours**

This is the fourth semester of Spanish and is a continuation of Intermediate Spanish I. After a brief review, the same procedure for previous semesters will be continued. Conversation will be emphasized. Additional sources will be used to supplement the text and to increase vocabulary. Students will be expected to write a paper in English on the subject of Spanish history or culture. Another shorter version in Spanish will also be written.

Fulfills: Depth course AA, AS, AGS, AAS, Humanities Requirement

Prerequisite: LANG 1912 Intermediate Spanish I

LANG 1914 Elementary French I **5 Credit Hours**

An introductory course in French in which the four language skills are emphasized initially listening and speaking, followed by reading and writing. Correct grammar, vocabulary and pronunciation are stressed and mastered through exposure and practice in the language lab. Introduction to French culture and civilization through history, arts, literature and cultural settings is included.

Fulfills: Breadth course AA, AS, AGS,AAS, Humanities Requirement

LANG 1915 Conversational French I **3 Credit Hours**

Practice in everyday conversational French with emphasis on phrases and vocabulary useful for travelers and development of oral/aural skills in conversation on cross-cultural topics. Reading and writing in French will also be assigned.

LANG 1916 Elementary French II **5 Credit Hours**

This is the second semester of French and is a continuation of Elementary French I. There will be further study of grammar and pronunciation, more emphasis on writing and speaking in everyday situation, more time spent in the lab and a more detailed study of French culture and civilization.

Fulfills: Breadth course AA, AS, AGS,AAS, Humanities Requirement

Prerequisite: LANG 1914 Elementary French I

LANG 1917 Conversational French II **3 Credit Hours**

This course is a continuation of LANG 1915 (Conversational French I) with further emphasis on understanding and speaking French. This course will include additional vocabulary and grammar study along with additional practice in reading and writing in the French language.

LANG 1925 Dir Ind Study/Foreign Language **1 to 3 Credit Hours**

Directed independent study is a structured learning experience offered as an extension of the regular curriculum. It is intended to allow students to broaden their comprehension of the principles of, and their grasp of competencies associated with academic, nonvocational disciplines. Its purpose is to supplement extant courses with individualized, in-depth learning experiences. Such learning experiences may be undertaken independent of the traditional classroom setting, but will be appropriately directed and supervised by regular instructional staff.

Fulfills: Depth course AA, AS, AGS, AAS, Humanities Requirement

LANG 1929 Conversational Spanish II **3 Credit Hours**

This course is a continuation of LANG 1909 Conversational Spanish with further emphasis on understanding and speaking Spanish. This course will include additional vocabulary and grammar study along with additional practice in reading and writing in the Spanish language.

Fulfills: Breadth course AA, AS, AGS,AAS, Humanities Requirement

Prerequisite: LANG 1909 Conversational Spanish

LANG 1933 Spanish for the Workplace **1 to 3 Credit Hours**

This course provides a study of workplace Spanish for non-Spanish speaking employers and employees who need to enhance communication in the workplace, with the colleagues and customers. The curriculum utilizes phonetic encoding to address Spanish commands, questions, and phrases critical in the workplace.

LANG 2909 Conversational Spanish **1 to 3 Credit Hours**

The student will be exposed to some 1200 high frequency words used in the Hispanic world including Mexico, all of South America, Cuba and Spain. The student will be required to understand the Spanish thought processes and verbalize these thoughts. The student will be able to ask for the necessities of life if he or she were in an environment where Spanish was a necessary tool.

GEOGRAPHY

GEOG 1819 World & Regional Geography **3 Credit Hours**

This course is designed as an introductory geographic survey arranged around the eight major regions: Anglo-American, Latin American, Europe, the former Soviet Union, The Middle East, The Pacific World, and Africa. Emphasis is placed on an analysis of the natural environment, cultural environment, population status, economic development, and potentials.

GRAPHIC DESIGN

GRPH 1000 Directed Ind-Study Graphic Des **1 to 3 Credit Hours**

Directed independent study is a structured learning experience offered as an extension of the regular curriculum. It is intended to allow students to broaden their comprehension of the principles of, and their grasp of competencies associated with multimedia technologies within vocational disciplines. Its purpose is to supplement existing courses with individualized, in-depth learning experiences. Such learning experiences may be undertaken independent of the traditional classroom setting, but will be appropriately directed and supervised by regular instructional staff. A subject/topic associated with graphic design, selected by student in consultation with the instructor, and to be researched extensively by reading and completing assignments, etc. (as detailed in the Independent Study Contract).

GRPH 1030 Web Page Design**3 Credit Hours**

This course is designed to build on the course material from the Information Superhighway and Web Site Construction courses. In this course the student will focus on design criteria used for the Internet. Student's will plan and develop well-designed web sites that combine effective navigation with balanced use of graphics, text, and color. The student will review design techniques by studying example pages and web sites and then apply the principles to their own.

GRPH 1040 Creative Visualization**3 Credit Hours**

A combination lecture and lab course addressing the generation and cultivation of ideas, concept and story development, practice of problem-solving strategies, and creative thinking for graphic design, multimedia development and digital storytelling. Students will research ideas, develop a story, create inspirational sketches, descriptive drawings, character and object design, storyboards, and scripts, while learning new methodologies to critically think and write for the visual, spatial, and temporal languages of art and technology.

GRPH 1047 Multimedia Design**3 Credit Hours**

This course is designed to provide students learning experiences in multimedia technology. Presentation skills and design will be emphasized with the professional perspective on using graphics as an essential part of their regular work. This information is valuable whether the student is planning on becoming a graphic arts professional, support staff member, information analyst, or presenter.

GRPH 1048 Multimedia Presentations**1 to 3 Credit Hours**

This course is designed to let the student experience multimedia technology. Presentation skills and design will be emphasized with the professional perspective on using graphics as an essential part of their regular work. This information is valuable whether the student is planning on becoming a graphic arts professional, support staff member, information analyst, or presenter.

GRPH 1049 Web Site Construction**3 Credit Hours**

This course continues to build on the material from the Information Superhighway course, with a pronounced emphasis on information layout, forms, and Java Scripting. Students will be exposed to one or more popular web page layout applications, the use of which will save time and countless keystrokes in the coding process. The scripting component of this course will focus heavily on programming concepts rather than techniques, preparing the student for much heavier programming. Other Web-related topics covered will include: animation, frames, forms, CGIs, external media and plug-ins.

GRPH 1050 Occupational Internship I**1 to 6 Credit Hours**

This course is designed to provide the student with practical work experience and on-the-job training within his or her chosen career field. Students will engage in experiences to enhance the development of their professional graphic design career.

GRPH 1054 Digital Image Editing**3 Credit Hours**

This course is for the individuals interested in exploration into the use of computer graphics as applied to the advertising and business communications industries. Concentration will be on the creation of digital images for use in printed publications, corporate identity and web pages for the Internet.

GRPH 1055 Portfolio Development**1 to 3 Credit Hours**

This course is for individuals interested in developing a professional portfolio. The completed portfolio will be the student's record of goals, growth, achievement, and professional attributes developed during their course of study. The portfolio will monitor the student's professional growth throughout the student's career. As a part of the portfolio process, students will develop their personal resumes and go through an intense interview procedure.

GRPH 1056 Vector Image Development**3 Credit Hours**

This course is for individuals interested in learning the basics of vector image development. The course is computer based and focuses on how to communicate through design. Issues fundamental to layout typography, and vector-based illustration will be covered, perfectly suited to any student who will be responsible for illustrations or graphics of any type. A leading drawing application software package will be utilized in this course. It includes transformations, trapping, continuous-tone images, perspective grids, three-dimensional drawings, and graphic tool.

GRPH 1058 Animation Authoring**3 Credit Hours**

This course is for individuals interested in learning the basics of creating interactive presentations comprised of graphics, text, animation, and applications for the World Wide Web. The course is computer-based, using leading animation software, and focuses on how to create and incorporate sensory-rich web content containing animation, sound, and viewer interactivity.

GRPH 1062 Digital Image Editing II**3 Credit Hours**

This course is designed for students already proficient with basic applications in digital image editing who now want to significantly extend their skills and knowledge for color correction and image editing through a savvy use of alpha channels. The course provides a critical overview of advanced techniques, production strategies and creative workflow for reliable and efficient production. Students will learn to create bitmap images for use in publications, on the World Wide Web and for high quality reproduction in glossy publications.

Prerequisite: GRPH 1054 Digital Image Editing with a grade of D or better or BSTC 1054 with a grade of D or better Barton County Campus classes use Photoshop CS4

GRPH 1065 Digital Video Editing**3 Credit Hours**

This course is for individuals interested in exploring the use of digital video as applied to business and industry communications, in addition to concept development and personal expression. Concentration will be on the capture of video, and the creation and enhancement of digital video for use in forms of multimedia, particularly those relating to educational material, product or service marketing, and various web-based presentations.

GRPH 1070 Portable Document Formatting**3 Credit Hours**

This course covers topics related to portable document formatting. Students will learn how to use software to convert documents from nearly any program to the Portable Document Format (PDF). Portable document formatting software is used to preserve the fonts, layout, colors, and graphics of any document, regardless of the program or platform used to create the document.

GRPH 1071 Publication Development&Layout**1 to 3 Credit Hours**

The course is designed to provide students an opportunity to learn and practice skills for modern graphics art layout with software used in many design, communication, and journalism fields.

GRPH 2047 Multimedia Design**1 to 3 Credit Hours****GRPH 2048 Multimedia Presentations****1 to 3 Credit Hours**

Course Descriptions

HAZARDOUS MATERIALS

HZMT 1901 Motorcycle Safety for Beg Ride 1.5 Credit Hours

This course covers the basic fundamentals for you to develop your capabilities to become a safe and responsible motorcyclist. It provides the opportunity for you to learn the physical and mental skills important for operating a motorcycle. In the classroom, you will learn ways to minimize risk and handle special riding situations as well as Kansas licensing laws and a traffic system review. During the riding portions of the course, you will be coached to develop the physical skills of basic control, then move on to more advanced skills such as quick stops, cornering, and swerving.

HZMT 1905 Environmental Sampling & Monit 3 Credit Hours

This course introduces students to the basic concepts and technologies employed to properly sample and monitor various environmental media in a variety of settings. Course emphasis is given to both regulatory compliance and response operations. Topics include air, water, and soil sampling plans, equipment selection, sampling techniques, sample integrity, monitoring techniques, chain of custody, quality, and data interpretation.

HZMT 1907 Resource Conserv & Recovery Act 3 Credit Hours

This course provides a detailed study of U.S. Environmental Protection Agency regulations pertaining to hazardous waste management, with an emphasis on the requirements of RCRA and CERCLA. This course provides an introduction to the Resource Conservation and Recovery Act (RCRA) with an emphasis on federal rulemaking, regulatory framework, and hazardous waste management. Topics include the Federal Register, Code of Federal Regulations, hazardous waste characterization, generator classifications, transporter responsibilities, treatment and disposal facilities, universal waste, standard and innovative remediation technologies, and contingency planning. Students will also explore and discuss related laws impacting hazardous waste management such as the Comprehensive Environmental Response and Liability Act (CERCLA) and the Emergency Planning and Community Right to know Act (EPCRA).

HZMT 1909 Clean Air & Water Quality Regs 3 Credit Hours

This course provides a study of the U.S. Environmental Protection Agency Regulations as they relate to hazardous materials technology. This course is intended as a follow on to EPA Regulations I, which introduced the student to the EPA and associated regulations pertaining to land protection and waste management. protection of air and water. Topics and activities include the 1990 Clean Act Amendments (CAAA), air permitting requirements Title V of CAAA, air pollution control technologies, National Pollutant Discharge Elimination System, analyzing case studies, writing reports, researching and interpreting standards in the Code of Federal Regulations. This course provides a study of the laws and regulations associated with the protection of air and water. Topics and activities include the Clean Air Act Amendments (CAAA), Clean Water Act (CWA), air pollution control technologies, National Pollutant Discharge Elimination System (NPDES), and interpreting standards promulgated in the Code of Federal Regulations.

HZMT 1911 Emergency Resp to Chem Spills 1 to 3 Credit Hours

This course provides students with an overview of the requirements of 29 CFR 1910.120 (g) for Emergency Responders (Spill Response Teams, Hazmat Teams, Fire Fighters, EMS, FEMA personnel or Policeman) who respond to chemical spills. Topics include levels of releases, emergency response plan, environmental spill response, incident command system, toxicology, chemical awareness, monitoring, personal protective equipment, safety, site control, types of decontamination, emergency spill containment procedures.

HZMT 1912 Industrial Hygiene/Toxicology 1 to 3 Credit Hours

A review of the research done in determining the systematic health effects of exposures to chemicals. Determination of risk factors, routes of entry, control measures, and acute and chronic effects are discussed.

HZMT 1913 OSHA General Industry Standard 0.75 to 2.5 Credit Hours

This course will train students on Occupational Safety and Health Act, (OSHA) regulations pertaining to General Industry standards that are set forth in the Code of Federal Regulations 29, Part 1910.

HZMT 1914 OSHA General Industry Regs 1 to 3 Credit Hours

The purpose of this course is to provide instruction concerning the development and implementation of a hazard communication program for employees, the community and emergency response personnel. Topics covered include hazard determination, the written program, labeling and placarding, material safety data sheets (MSDS), and the employee training program.

HZMT 1915 Contingency Planning 3 Credit Hours

This course is designed to teach the students how to develop an emergency response contingency plan for a facility or community. Preparedness includes analyzing the hazards, writing and implementing the contingency plans, training employees for an emergency, and evaluating the effectiveness of the contingency plan.

HZMT 1917 Dept. of Transportation Regs 1 to 3 Credit Hours

This course provides a detailed study of the U.S. Department of Transportation (DOT) regulations. Topics include identifying regulated materials, prepare shipping papers, inspection of packaging and label determination. Emphasis will be placed on interpretation of regulations used in the transportation and storage of hazardous materials.

HZMT 1919 Haz Waste Oper & Emer Response 1 to 3 Credit Hours

This course provides students with an overview of the requirements of 29 CFR 1910.120 for occupational health and safety workers who respond to hazardous waste and chemical spills. Topics include toxicology, chemical awareness, monitoring, personal protective equipment, safety, confined space entry, incident command, site control, medical surveillance, decontamination, safe work practices and emergency procedures.

HZMT 1924 OSHA Constr Industry Standard 0.75 to 2.5 Credit Hours

This course will train students on Occupational Safety and Health Act, (OSHA) regulations pertaining to construction standards that are set forth OSHA's construction industry standards.

HZMT 1925 OSHA Construct Industry Regs 2 to 3 Credit Hours

This course will train students on Occupational Safety and Health Act, (OSHA) regulations pertaining to construction standards that are set forth in the Code of Federal Regulations 29, part 1926

HZMT 1934 ISO 14000 Environmental Mgmt 3 Credit Hours

This course will concentrate on general environmental management systems and tools, which comprise the scope of ISO 14000, the voluntary international standard for environmental management systems. Students will explore specific requirements for environmental management systems, to enable an organization to formulate policies and objectives, which minimize the impact of its operation on the environment. Examples of environmental management systems that will be reviewed include policies, organizational systems, management, planning, operational procedures, effect and regulatory identification procedures, objectives, targets, vendor controls, auditing, record keeping and many others. Students will be given practical exercises requiring application and critical thinking to add structure and perspective to their learning process.

HZMT 1935 Intro to Water/WasteWater Oper 3 Credit Hours

This course is designed to provide students with an understanding of the basic operations of public water works as well as wastewater treatment facilities.

HZMT 1938 Comp Aid Mgmt of Em OP (CAMEO) 1 to 3 Credit Hours

This course is designed as an introduction to the basic skills and techniques required to effectively employ Emergency Management Operations software. Both experienced and inexperienced students in the Hazardous Materials, Emergency Operations, or Emergency Services field will find the broad overview and extensive practical exercises beneficial to their learning process. Each student will learn to develop, assess, store, integrate, and manage critical data, using a suite of software designed to assist in planning and responding to hazardous chemicals/materials incidents.

HZMT 1940 Introduction Ergonomics 3 Credit Hours

This course provides the student the fundamental knowledge about human structure, behavior, and common work practices. Knowledge gained in class will enable the student to evaluate work systems and recommend changes that will reduce work related musculoskeletal disorders (MSD) and other workplace ergonomics related injuries.

HZMT 1950 Characteristics of Haz Mat 3 Credit Hours

This course focuses on the basic concepts needed by first responders, emergency operations personnel, industry, and law enforcement to evaluate the potential hazards and behaviors of materials considered hazardous. It examines the reasons for the chemical behavior of hazardous materials and is designed to improve decision-making in safety operations, handling, entrance protection, mitigation, and decontamination procedures. Units of the course include the Periodic Table, chemical and physical aspects of chemical compounds and how these properties affect emergency incidents, salts, non-salts, the hydrocarbon family, hydrocarbon derivatives, and physical process of combustion.

HZMT 1958 Residential Energy Efficiency 3 Credit Hours

This course is designed to provide the student with information on the principles, methods and materials that have proven to be effective in improving the energy efficiency of residential buildings. All necessary components of effective use of energy in residential buildings will be covered.

HZMT 1960 Renewable Energy Sources 3 Credit Hours

This course provides a comprehensive overview of renewable energies, including solar energy, wind power, hydropower, biomass, and alternative fuels. Students will be taught the principles of basic solar design, solar hot water, pool and space heating and solar cooling. Students will learn how to assess the viability of wind power, hydropower or biomass system for a given location. Students will also learn about the impact of government regulations on the use of renewable and fossil fuel energies. Students will analyze these renewable energy systems and will calculate savings factors; backup energy needs, financing options, and economic analyses.

HZMT 1961 Energy Efficiency & Conserv 3 Credit Hours

This course will identify and explain all of the energy efficiency/conservation methods available for energy use reduction. Energy-consuming facilities, both domestic and commercial, will be analyzed by the students for energy efficiency opportunities. The student will calculate energy savings and environmental impacts for most energy efficiency methods in order to identify and assess energy conservation opportunities. In addition, the student will demonstrate the appropriate usage of energy monitoring and measuring equipment commonly used by energy specialists and energy auditors.

HZMT 1970 OSHA Standards Construction500 1 to 3 Credit Hours

This is an advanced course offered through OSHA's outreach program that prepares and upon successful completion authorizes the student to instruct OSHA's 10 or 30 hour construction courses.

HZMT 1971 OSHA Standards General Indust 1 to 3 Credit Hours

This is an advanced course offered through OSHA's outreach program that prepares and upon successful completion authorizes the student to instruct OSHA's 10 or 30 hour general industry courses.

Prerequisite: HZMT 1914 OSHA General Industry Regs or OSHA 510 course (OSHA class, not Barton)

HZMT 1972 OSHA 2225 Resp Protection 2 Credit Hours

This course will cover a variety of respirators, fit testing, and respiratory protection written programs for employers. This course meets the requirements of OSHA 2225 respiratory protection.

HZMT 1975 Recertification for HAZWOPER 0.5 to 1 Credit Hours

This course provides students with eight hours of refresher training requirements of 29 CFR 1910.120(e)(8) for occupational health and safety workers who respond to hazardous waste and chemical spills. Topics include toxicology, chemical awareness, monitoring, personal protective equipment, safety, confined space entry, incident command, site control, medical surveillance, decontamination, safe work practices and emergency procedures. Training also may include any critique of incidents that have occurred in the past year that can serve as training examples of related work, and other relevant topics.

HZMT 1977 IATA Dangerous Goods Regs 3 Credit Hours

This course provides a detailed review and familiarization of how to prepare dangerous goods for commercial airlift in accordance with the IATA Dangerous Goods Regulation. Topics include identifying the dangerous goods that can be transported on a commercial aircraft, identify the different restrictions and variations for air carriers and host nations, preparing shipping documents, selecting appropriate containment devices and recognizing their immediate limitations, and selecting the correct markings and labels that are used to communicate the hazard(s) of the items.

HZMT 1978 GIS for Emergency Operations 3 Credit Hours

This course serves as an introduction to Geographic Information Systems and their application in Emergency Operations. The basic concepts of geography, cartography and Global Positioning Systems will be covered, along with the basic components and capabilities of a geographic information system. Students will learn about the fundamental types of GIS analysis and applications, focusing on those used in Emergency Operations.

HZMT 1979 Continuity Operations Planning 3 Credit Hours

This course provides a brief overview of continuity of operations planning, including its definition, the legal basis for continuity planning, the Continuity Program Management Cycle, and the essential elements of a viable continuity program. The course covers program requirements, elements and support requirements and describes the roles responsibilities of the Continuity Program Manager and other key players in developing a viable continuity program.

HEALTH**HLTH 1247 Lifetime Fitness and Wellness 1 to 3 Credit Hours**

This course will develop those basic fitness and wellness skills necessary for lifelong health and fitness. Lectures and laboratory sessions will be centered on practical knowledge and experiences. The course is designed to help each individual incorporate various types of physical activities into their lifestyle, fitness, health, and leisure recreation.

Fulfills: PE/Health Course, Physical Education Requirement

Course Descriptions

HLTH 1248 Personal & Community Health 3 Credit Hours

The purpose of this course is to provide a personal appreciation, understanding, and awareness for good health and well being by analyzing the causes and effects of major health problems in our society today.

Fulfills: PE/Health Course, Physical Education Requirement

HLTH 1249 Personal & Comm Health -Honors 3 Credit Hours

HLTH 2247 Lifetime Fitness and Wellness 2 Credit Hours

This course will develop those basic fitness and wellness skills and behaviors necessary for lifelong health, fitness, and well-being. Lecture sessions will cover how to develop a personal lifetime program that promotes fitness, preventive health care, and personal wellness. Through supervised circuit training and other exercise activities, students will evaluate and develop their muscle tone, cardiovascular endurance, flexibility, and body composition.

Fulfills: PE/Health Course, Physical Education Requirement

HISTORY

HIST 1400 American History to 1877 3 Credit Hours

The history of America will be examined from the early arrival of the colonists through the American Civil War and its reconstruction period. Political, social, economic, cultural, and religious forces that have shaped American History will be studied. The course provides a foundation for understanding the basics of American History.

Fulfills: Breadth course AA, AS, AGS,AAS, Humanities Requirement

HIST 1401 American History 1865 to Pres 3 Credit Hours

This course will examine the major developments of U.S. history since the end of the Civil War to the present. Important individual events will be examined in order to get an overall picture of our American history during this period. Special attention will be given to reconstruction after the Civil War, the Great Depression of the 1930's and the impact of World War II and other events that took place and played a highly significant role in our history. Students will be asked to describe at least one important thing they learned from each chapter and to critically analyze the impact this had on the U.S.

HIST 1402 American History 1877-Present 1 to 3 Credit Hours

American History 1877-Present is a study of social, economic, and political developments in American society from the end of the Civil War reconstruction (1877) to the present.

Fulfills: Breadth course AA, AS, AGS,AAS, Humanities Requirement

HIST 1403 American History to 1865 3 Credit Hours

The topics of particular focus of this course include the Age of Discovery and European expansion, the temper of European-Indigenous American "first contact", early Colonial wars and culture, the growth of the Anglo-American rift, and the American Revolution. The course examines the failures of the early Confederation, America's struggle to establish a constitutional republic, the challenges of our first four Executive administrations, Jacksonian Democracy and the transformation of America's 19th century socio-political landscape, and an analysis of America's bloody Civil War.

HIST 1404 American West 3 Credit Hours

A study of the significance of the West in American History during the 19th Century. The American West is not intended for fulfillment of any general requirement of three hours in American History. It is primarily for students interested in such a course as an elective.

Fulfills: Depth course AA, AS, AGS, AAS, Humanities Requirement

HIST 1406 History of Kansas 1 to 3 Credit Hours

A study of the cultural, social, economic, and political developments in Kansas society from pre-history to the present.

Fulfills: Depth course AA, AS, AGS, AAS, Humanities Requirement

HIST 1408 Western Civilization to 1500 3 Credit Hours

The major trends in Western Civilization from ancient times through the Renaissance will be examined. The ideas and forces that have produced major changes in western man's civilization will be emphasized.

Fulfills: Breadth course AA, AS, AGS,AAS, Humanities Requirement

HIST 1409 Hist & Phil Western cul to1500 3 Credit Hours

This course focuses upon reading and discussing a select group of important writings and ideas that left an imprint on the intellectual and cultural development of the Western world. History and Philosophy of Western Culture to 1500 includes readings from the ancient, medieval, and early modern periods.

HIST 1410 Western Civilization 1500-Pres 3 Credit Hours

This course is a continuation of HIST 1408 Western Civilization to 1500. HIST 1410 will cover Western Civilization from 1500 to the present. It is the intent of the course to introduce students to the broad sweep of Western civilization. The course is focused on examining Western heritage from the historical perspective. The class will examine social history as a core element, but extensive attention is given to economic, political, cultural, and intellectual developments.

Fulfills: Breadth course AA, AS, AGS,AAS, Humanities Requirement

HIST 1411 Hist&Phil West Cul 1500 - Pres 3 Credit Hours

This course focuses upon reading and discussing a select group of important writings and ideas that left an imprint on the intellectual and cultural development of the Western world. History and Philosophy of Western Culture 1500- Present includes readings from the modern periods.

HIST 1413 West Civ 1500-Present Honors 3 Credit Hours

This course is a continuation of HIST 1408 Western Civilization to 1500. HIST 1410 will cover Western Civilization from 1500 to the present. It is the intent of the course to introduce students to the broad sweep of Western civilization. The course is focused on examining Western heritage from the historical perspective. The class will examine social history as a core element, but extensive attention is given to economic, political, cultural, and intellectual developments.

HIST 1415 Western Civ To 1500 Honors 3 Credit Hours

This course is a continuation of HIST 1408 Western Civilization to 1500. HIST 1410 will cover Western Civilization from 1500 to the present. It is the intent of the course to introduce students to the broad sweep of Western civilization. The course is focused on examining Western heritage from the historical perspective. The class will examine social history as a core element, but extensive attention is given to economic, political, cultural, and intellectual developments.

HIST 1416 American Military History 3 Credit Hours

This course is designed to present a balanced history of the Army from its beginnings through the post Vietnam era, with appropriate attention to peacetime as well as wartime achievements.

Fulfills: Breadth course AA, AS, AGS,AAS, Humanities Requirement

HIST 1425 Women & The American Experience 3 Credit Hours

This course is an introduction to the history of women in America. The primary focus is that of the experience of American women in the areas of family life, economic life, and public life. Special attention will be given to the diversity of class, race, and region. Topics are covered which give women's history its distinctive character.

Fulfills: Depth course AA, AS, AGS, AAS, Humanities Requirement

HIST 1440 Seminar in History 1 Credit Hours

Seminar in History is a structured learning experience offered as an extension to the regular history curriculum. The seminar will allow students to study specific time periods and major events in history.

HIST 1450 History of World Civ to 1500 3 Credit Hours

It is the intent of this course to introduce students to the broad sweep of world civilizations. The course is focused on examining heritage of world civilizations from the historical perspective. The class will examine the history of world civilizations from social, economic, political, cultural, and intellectual perspectives.

Fulfills: Breadth course AA, AS, AGS, AAS, Humanities Requirement

HIST 1452 History of World Civ 1500-Pres 3 Credit Hours

History of World Civilizations 1500 to Present will cover world civilizations from 1500 to the present. It is the intent of the course to introduce students to the broad sweep of western civilizations. The course is focused on examining heritage of world civilizations from the historical perspective. The class will examine the history of world civilizations from social, economic, political, cultural, and intellectual perspectives.

Fulfills: Breadth course AA, AS, AGS, AAS, Humanities Requirement

HIST 1460 Military Hist/Amer Revolution 3 Credit Hours

This course presents the military history of the American Revolution through the detailed examination of the strategy, operations, battles, and leadership of the war.

Fulfills: Depth course AA, AS, AGS, AAS, Humanities Requirement

HIST 1461 Military Hist/Amer Civil War 3 Credit Hours

This course presents the military history of the American Civil War. While such topics as the cause of the war and the relative strengths and weaknesses of the North and South will be addressed, the focus of the course will be the major campaigns and battles of the Civil War. Campaign/battle studies will not consist merely of an examination of the events of the campaign/battle. They will include that of the course, but also a great deal more. In addition they will include discussions of the events that precipitated each campaign/battle; examinations of the strategy, tactics, and leadership of the belligerents; and evaluations of the result of the battle on the belligerents.

Fulfills: Depth course AA, AS, AGS, AAS, Humanities Requirement

HIST 1462 Military Hist/First World War 3 Credit Hours

This course presents the military history of World War I. As background for the war, this course will first examine the political, diplomatic, economic, and military events from 1914 to 1919 that led to the war. The course will then cover the major campaigns and battles in all the major theaters of the war. The campaign/battle studies will not consist merely of an examination of the events of each campaign/battle, but will also examine the political, diplomatic, economic, and strategic context in which they occurred. Thus, the campaign/battle studies will address the events that precipitated each campaign/battle; the strategy, tactics, and leadership of the belligerents; and the result of the battle of the outcome of the war.

Fulfills: Depth course AA, AS, AGS, AAS, Humanities Requirement

HIST 1463 Military Hist/Second World War 3 Credit Hours

This course presents the military history of World War II. As background for the war, this course will first examine the political, diplomatic, economic, and military events from 1919 to 1941 that led to war in both the Pacific and European Theaters. The course will then concentrate on the military, naval, and air campaigns and battles from 1941 to 1945. This portion of the course will cover the major campaigns and battles in all the major theaters of the war. The campaign/battle studies will not consist merely of an examination of the events of each campaign/battle. The studies will also examine the political, diplomatic, economic, and strategic context in which they occurred. Thus, the campaign/battle studies will address the events that precipitated each campaign/battle; the strategy, tactics, and leadership of the belligerents; and the result of the battle on the outcome of the war.

Fulfills: Depth course AA, AS, AGS, AAS, Humanities Requirement

HIST 1465 Military Hist/Vietnam War 3 Credit Hours

This course presents the history of the Vietnamese War. As background for the war, this course will first examine the political, diplomatic, economic, and military events from 1914 that led to the development of Vietnamese Nationalism and the American administrations. Military strategy will be discussed along with the political, diplomatic, and economic context in which it occurred. The anti-war movement, public opinion, literature and the media and the war will be discussed. Finally the peace accords, which may or may not have worked from this conflict, will be studied along with a look at the consequences of the conflict and the lessons learned.

Fulfills: Depth course AA, AS, AGS, AAS, Humanities Requirement

HIST 1475 Hist of Amer Intell Community 3 Credit Hours

This course serves as a survey of the United States intelligence community from World War Two to present. The course will focus on key periods in the development of the modern US intelligence community, (1) the post-World War Two reorganization, (2) the post-Cold War period, and (3) the post-9/11 reforms.

HIST 2440 Seminar in History 1 Credit Hours**JOURNALISM****JOUR 1204 Introduction to Broadcasting 3 Credit Hours**

This is an introductory course in broadcasting. It examines the tools, techniques and applications necessary in today's age of broadcasting.

Fulfills: Breadth course AA, AS, AGS, AAS, Humanities Requirement

JOUR 1209 Radio Practicum 1 Credit Hours

This course is designed to familiarize students with audio production while working with professionals at a local radio station. It will include a study of the equipment and a practical application of the equipment. Considerable emphasis will be given to production of commercials, public service announcements, interviews, sports broadcasts and promos.

Prerequisite: Enrollment by consent of Instructor

JOUR 1210 Broadcasting Practicum 1 to 3 Credit Hours

A course in which interested student journalists will learn about broadcast journalism through on-the-job reporter training at a local or area television station. **RESTRICTION:** Consent of Instructor.

Prerequisite: Enrollment by consent of Instructor.

JOUR 1700 Intro to Mass Media 3 Credit Hours

This course is designed to look at the media from a structural and descriptive point of view. It will stress the newspaper, television, and radio, and will show their role in our society.

Fulfills: Breadth course AA, AS, AGS, AAS, Humanities Requirement

Course Descriptions

JOUR 1701 Journalism I

3 Credit Hours

Journalism I is primarily a hands-on course that provides instruction in news and feature writing. Basic writing skills are emphasized. Interviewing skills will not be emphasized in this course, although they will be covered in some length in Journalism II. With a few notable exceptions (such as the outside speech writing assignment) students in Journalism I will be provided with "news" in raw form and will rework the "facts" into a presentable story or will complete activities in the workbook.

JOUR 1703 Dir Ind Study/Journalism

1 to 3 Credit Hours

Directed independent study is a structured learning experience offered as an extension of the regular curriculum. It is intended to allow students to broaden their comprehension of the principles of, and their grasp of competencies associated with academic, nonvocational disciplines. Its purpose is to supplement extant courses with individualized, in-depth learning experiences. Such learning experiences may be undertaken independent of the traditional classroom setting, but will be appropriately directed and supervised by regular instructional staff.

Fulfills: Depth course AA, AS, AGS, AAS, Humanities Requirement

JOUR 1704 Beginning Reporting

3 Credit Hours

The basic journalistic writing course will cover news writing for all branches of the news media with emphasis on newspapers. It will emphasize gathering and writing actual news stories from campus and community resources.

Fulfills: Depth course AA, AS, AGS, AAS, Humanities Requirement

JOUR 1705 Advanced Reporting

3 Credit Hours

The advanced journalistic writing course will cover various aspects of writing including news, news features, investigative reporting, editorials, and columns with an emphasis on newspapers. It will emphasize gathering and writing actual news stories from campus and community resources.

Prerequisite: JOUR 1704 Beginning Reporting with a grade of C or better

JOUR 1708 Newspaper Production I

1 to 3 Credit Hours

Students will learn how to manipulate the basic elements of design (photos, headlines and text); create charts, maps and diagrams; design attractive photo spreads; add effective, appealing sidebars to complex stories; create lively, engaging feature page designs; develop leads for stories, and meet deadlines.

JOUR 1709 Newspaper Production II

1 to 3 Credit Hours

In this advanced course, students will build on the basic information acquired in Newspaper Production I. Additional time will be spent on advertising as well as more intense focus on page layout and design.

Prerequisite: JOUR 1708 Newspaper Production I or concurrent enrollment in JOUR 1708 Newspaper Production I

JOUR 1710 Performance Thesis-Yearbook

3 Credit Hours

In this course, the college yearbook will be created. The creativity of the student will be stressed and will be implemented by the faculty advisor working in cooperation with a representative from a commercial yearbook firm.

Prerequisite: Enrollment by consent of instructor.

LEADERSHIP

LEAD 1000 Intro to Leadership Concepts

3 Credit Hours

This course studies leadership styles, skills, roles, and functions of leaders of organizations. Students will gain a broad understanding of the history and origins of leadership, theoretical approaches to leadership, and ethical issues facing contemporary leaders. Students will also develop a personal philosophy of leadership, an awareness of one's own style of leadership. This program integrates readings from the humanities, classic works of literature, contemporary multicultural writings, and experiential learning exercises with readings and discussions of traditional leadership theories. This course will utilize the acclaimed Phi Theta Kappa Leadership Development program curriculum.

Fulfills: Depth course AA, AS, AGS, AAS, Humanities Requirement

LEAD 1001 Leadership - Honors

3 Credit Hours

LIBRARY SCIENCES

LIBR 1105 Research Skills - Honors

1 to 3 Credit Hours

Students will develop advanced research skills appropriate for a variety of disciplines and formats. Emphasis will be in-depth research planning and searching in specific subject areas.

Prerequisite: Research Skills is offered as an Honors class open to Honors, Phi Theta Kappa, and Alpha Sigma Lambda students or by instructor permission.

LIBR 1106 Intro to Research Skills

1 Credit Hours

The student will learn ways to search for information more efficiently and use the information more effectively. This course will benefit students in any course in English, History, the Humanities or the Social Sciences which requires research.

LIFE SCIENCES

LIFE 1402 Principles of Biology

0 to 5 Credit Hours

The course introduces the student to the unifying principles common to all levels of biological organization. Emphasis is at the cellular, organism and population levels with inquiry into the nature of scientific investigation. This course is designed to provide students with a biological frame of reference in a liberal education as well as for students selecting additional courses in the department of biology.

Fulfills: Laboratory Course, Natural Science Requirement

LIFE 1403 Principles of Biology - Honors

0 to 5 Credit Hours

LIFE 1406 Principles of Botany

0 to 5 Credit Hours

This course is a survey of the plant kingdom. Emphasis is placed on the significance of plants to human life. A study of the cell, plant structure and function, genetics, evolution, classification, and ecology are included.

Fulfills: Laboratory Course, Natural Science Requirement

Prerequisite: LIFE 1402 Principles of Biology

LIFE 1407 Anatomy & Physiology I**0 or 4 Credit Hours**

This course represents the first of an eight (8) credit hour Anatomy and Physiology course. The student is expected to enroll in the second half of the course (1409) during the same academic year, and both courses (1407 and 1409) must be complete to complete the eight credits our sequence in Anatomy and Physiology. Lecture and lab studies will include: organization of the body; cells; tissues; membranes and glands; skeletal; muscular; nervous; sensory and endocrine systems.

Fulfills: Laboratory Course, Natural Science Requirement

Prerequisite: Student must be eligible to enroll in ENGL 1204: English Composition I AND MATH 1824: Intermediate Algebra

LIFE 1408 Anatomy & Physiology**0 to 5 Credit Hours**

The aim of this course is to provide the student with a knowledge of the structure and function of the human body. Emphasis is on the study of function in the body and a basic knowledge of gross anatomy. Laboratory work will include a study of the major body systems.

Fulfills: Laboratory Course, Natural Science Requirement

Prerequisite: Student must be eligible to enroll in ENGL 1204: English Composition I AND MATH 1824: Intermediate Algebra

LIFE 1409 Anatomy & Physiology II**0 or 4 Credit Hours**

This course represents the second half of an eight (8) credit hour Anatomy and Physiology course. The student is expected to have successfully completed the first half of the course (1407) during the same academic year, and both courses (1407 and 1409) must be complete to complete the eight credit hour sequence in Anatomy and Physiology. Lecture and lab studies will include: the cardiovascular system, lymphatic system, respiratory system, digestive system, metabolism, urinary system, electrolyte and acid-base balance and reproductive systems.

Fulfills: Laboratory Course, Natural Science Requirement

Prerequisite: Student must be eligible to enroll in ENGL 1204: English Composition I AND MATH 1824: Intermediate Algebra

LIFE 1410 Principles of Zoology**0 or 5 Credit Hours**

This course is designed to introduce the student to the fundamental concepts and principles of animal biology and to be aware of the relationship of these principles to man. Laboratory study of animals, representing the gross and microscopic anatomy, physiology, classification, and ecology will be included. The approach will be from the single celled to the complex organism.

Fulfills: Laboratory Course, Natural Science Requirement

Prerequisite: LIFE 1402 Principles of Biology with a grade of C or better

LIFE 1411 Anat/Physiol-PreHospit Provide**4 Credit Hours**

This course will provide the student with a working knowledge of the structure and function of the human body. Emphasis is on the study of function in the body and a basic knowledge of gross anatomy. All concepts in this course will then also be related to the sick and injured patients commonly seen in the pre-hospital emergency environment. Prerequisite: Consent of Instructor

Fulfills: Natural Science Requirement, Non-Laboratory Course, Natural Science checkw/advisor

Prerequisite: Enrollment by consent of instructor.

LIFE 1412 Principles of Microbiology**0 or 5 Credit Hours**

Microbiology is the study of microorganisms and their role in the world around us. This course includes a study of bacteria in relation to their physiology, morphology, taxonomy, life cycles, and economic influences. The students will acquire skills in performing lab techniques involved in the culturing and studying of microorganisms. The course is designed to meet the requirements of those interested in biology and allied health programs.

Fulfills: Laboratory Course, Natural Science Requirement

Prerequisite: Student must be eligible to enroll in ENGL 1204: English Composition I AND MATH 1824: Intermediate Algebra

LIFE 1413 Environmental Science**3 Credit Hours**

A study of current environmental conditions, issues, and problems. Students will study the different types of ecosystems, the use and availability of natural resources, population dynamics, and environmental risks. Students will also explore possible solutions to such environmental issues such as global warming, acid rain, extinction of species, and energy waste by examining current specific and political thought.

Fulfills: Laboratory Course, Natural Science Requirement, Non-Laboratory Course

LIFE 1414 Environmental Science Lab**2 Credit Hours**

This course covers lab procedures that are commonly used to determine the quality of our environment. Students will perform quantitative and qualitative experiments on air, water, food, and soil to determine environmental quality.

Fulfills: Laboratory Course, Natural Science Requirement

Prerequisite: LIFE 1413 Environmental Science or concurrent enrollment in LIFE 1413 Environmental Science

LIFE 1416 Independent Sty in Bio Science**1 to 3 Credit Hours**

A subject of biological science, selected by the student in conjunction with the instructor, will be researched extensively by experimentation and/or reading.

Fulfills: Natural Science Requirement, Non-Laboratory Course

Prerequisite: LIFE 1402 Principles of Biology with a grade of C or better

LIFE 1421 Principles of Zoology - Honors**0 or 5 Credit Hours**

This course is designed to introduce the student to the fundamental concepts and principles of animal biology and to be aware of the relationship of these principles to man. Laboratory study of animals, representing the gross and microscopic anatomy, physiology, classification, and ecology will be included. The approach will be from the single cell to the complex organism.

Prerequisite: LIFE 1402 Principles of Biology with a grade of C or better

LIFE 1422 Pathophysiology**4 Credit Hours**

This course is an introduction to the basic concepts of pathophysiology. Students will examine the phenomena that produce alterations in human physiologic function and the resulting human response. Upon completion of the course, students will understand pathophysiological changes, including how pathological processes are manifested, progress in the body, and the primary and secondary effects of these changes.

LIFE 1425 Residential Energy Efficiency**3 Credit Hours**

This course is designed to provide the student with information on the principles, methods and materials that have proven to be effective in improving the energy efficiency of residential buildings. All necessary components of effective use of energy in residential buildings will be covered.

Fulfills: Natural Science Requirement, Non-Laboratory Course

Course Descriptions

LIFE 1426 Renewable Energy Sources

3 Credit Hours

This course provides a comprehensive overview of renewable energies, including solar energy, wind power, hydropower, biomass, and alternative fuels. Students will be taught the principles of basic solar design, solar hot water, pool and space heating and solar cooling. Students will learn how to assess the viability of wind power, hydropower or biomass system for a given location. Students will also learn about impact of government regulations on the use of renewable and fossil fuel energies. Students will analyze these renewable energy systems and will calculate savings factors; backup energy needs, financing options, and economic analyses.

Fulfills: Natural Science Requirement, Non-Laboratory Course

LITERATURE

LITR 1210 Intro to Literature

3 Credit Hours

This course is designed to develop greater appreciation through the study of selected short stories, novels, poetry, and drama. The literature will be used as a vehicle to examine universal theme basic to the human condition and to investigate these themes as they relate to life experiences. Students will gain an understanding of literary concepts so that they will be able to interpret, analyze, and critically evaluate selections from this genre.

Fulfills: Breadth course AA, AS, AGS, AAS, Humanities Requirement

LITR 1212 The Short Story

3 Credit Hours

A careful examination of numerous short stories, for interest and artistic excellence. The purposes of this course are to increase the student's pleasure and sensitivity in short literature, to awaken interest materials and forms of fiction, and to increase understanding of the problems of life.

Fulfills: Depth course AA, AS, AGS, AAS, Humanities Requirement

LITR 1214 The Novel

3 Credit Hours

Designed to carefully examine world novels, to uncover each work's unsuspected delights. To instill understanding of why the student likes what he likes, how to appreciate style and technique and how to read with more enjoyment.

LITR 1215 World Literature

3 Credit Hours

This course is a study of literature from several countries and regions, by diverse authors, and of a variety of literary types. The literature will be used as a vehicle to examine universal themes basic to the human condition, to investigate the breadth of human diversity, and to increase awareness of human values, attitudes, and behavior throughout the world.

Fulfills: Breadth course AA, AS, AGS, AAS, Humanities Requirement

LITR 1216 American Literature I

3 Credit Hours

American Literature 1 a survey of American writing from pre- colonial to 1865 , with emphasis on the major writers and movements.

LITR 1217 Dir Ind Study/Literature

1 to 3 Credit Hours

Directed independent study is a structured learning experience offered as an extension of the regular curriculum. It is intended to allow students to broaden their comprehension of the principles of, and their grasp of competencies associated with academic, nonvocational disciplines. Its purpose is to supplement extant courses with individualized, in-depth learning experiences. Such learning experiences may be undertaken independent of the traditional classroom setting, but will be appropriately directed and supervised by regular instructional staff.

Fulfills: Depth course AA, AS, AGS, AAS, Humanities Requirement

LITR 1228 Introduction to Drama

3 Credit Hours

A study of the development of drama as literature.

LITR 1231 Popular Topics in Literature

1 Credit Hours

This course is designed for the enjoyment and edification of the members of the Silver Cougar's Club. It's subject matter may cover any of the following: the elements of prose, poetry, and drama; the study of individual classics; characteristics of literary forms; or literary periods.

LITR 1234 Shakespeare

3 Credit Hours

A study of the works of William Shakespeare, including selected comedies, tragedies, romances, histories, and poetry. Attention is given to Shakespeare's historical and literary significance.

LITR 1235 Great Books Program

1 to 3 Credit Hours

A concentrated study of great ideas found in literature, philosophy, history, economics, sociology, and the natural sciences designed to broaden the students' knowledge of self, others, and the world.

MACHINE TECHNOLOGY

MACH 2300 Basic Mach Shp Opr/Set-Up Prac

1 to 6 Credit Hours

This course provides thorough familiarization with a variety of precision measuring tools utilized by the mechanic.

MANUFACTURING SKILLS CERT

MSCT 1100 Employability Skills

1 Credit Hours

This course prepares students for future employment by providing them with the information and skills to obtain a job and be successful on the job.

MSCT 1101 Occupational Safety & Health

1 Credit Hours

This course provides students with an understanding of current safety regulations, established safety practices and the recognition and the impact of behavior and environment on injury prevention.

MSCT 1102 Prec Meas & Quality Control

2 Credit Hours

This course provides the study of basic measuring tools used in manufacturing today. This course will provide the student with proficiency through using and reading basic measuring devices.

MSCT 1103 Blueprint Reading GD & T

2 Credit Hours

This course provides the study of basic blue print reading and reading of engineering drawings. This course will develop the student's ability to locate and interpret dimensions in engineering.

MSCT 1104 Applied Shop Mathematics I

2 Credit Hours

This course provides the study of basic math calculations of whole numbers, fractions, decimals, inch/millimeter conversions, calculating X-R values and calculating percentages.

MATHEMATICS

MATH 1798 Jump Math

2 Credit Hours

To provide the opportunity for students to master math skills that they need to have to be successful in their chosen academic/career goals.

MATH 1803 Directed Studies-Math/Science

1 to 5 Credit Hours

This course deals with the investigation of selected areas of study within the division of mathematics and science. The students inquiry is supervised and guided by the instructor. Students are required to investigate/ explore certain areas of study that interest them within a particular field or discipline.

MATH 1805 Basic Math Skills**1 Credit Hours**

A developmental math course stressing the mastery of addition, subtraction, multiplication and division of whole numbers. This course also includes some work with the concept of prime and composite numbers, multiples, prime factorization, and basic geometry.

Fulfills: Developmental Course

MATH 1806 Technical Mathematics**1 to 3 Credit Hours**

This course covers the mathematics needed by students enrolled in technical or trade programs. The emphasis will be on application in solving problems encountered in vocational fields; the student will be exposed to a broad coverage of arithmetic, algebra, geometry and basic statistics. The metric system and measurement techniques will also be covered.

Fulfills: Foundation Course AAS,AGS, Mathematics Requirement

Prerequisite: MATH 1809 Basic Applied Mathematics with a grade of C or better OR having passed Module 4 in College Preparatory Mathematics OR an appropriate placement score.

MATH 1807 Math Learning Strategies**1 to 2 Credit Hours**

This course addresses feelings and attitudes, which may block mathematics learning and offers strategies and techniques designed to overcome these feelings. The course also teaches thinking and study skills specifically geared toward the learning of mathematics, which includes problem solving, test taking, and cognitive skills.

Fulfills: Developmental Course

MATH 1809 Basic Applied Mathematics**3 Credit Hours**

This course is for the college student whose grasp of basic arithmetic skills is currently weak or marginal. Competency at the college level in addition, subtraction, multiplication and division of integers, decimals and fractions as well as ratio and percent will be emphasized. Many of the problems in the course notes will be applied to real world topics.

Fulfills: Developmental Course

MATH 1811 Preparatory Mathematics**2 Credit Hours**

This course is designed as a review for arithmetic fundamentals. Topics to be covered include addition, subtraction, multiplication, division, fractions, decimals, and percents.

Fulfills: Developmental Course

Prerequisite: MATH 1805 Basic Math Skills with a grade of C or better or ASSET Numerical Skills score of at least 33 or ACT Math score of at least 14 or SAT Mathematics score of at least 370 or Accuplacer Arithmetic Skills score of at least 35

MATH 1813 College Preparatory Math I**3 Credit Hours**

To provide the opportunity for students to master math skills that they need to have to be successful in their chosen academic/career goals.

MATH 1814 Statistics**1 Credit Hours**

A general and brief introduction to statistics including measures of central tendency, variability, the normal curve and confidence intervals. Hypothesis testing and statistical inference are also included.

MATH 1815 College Preparatory Math II**3 Credit Hours**

To provide the opportunity for students to master math skills that they need to have to be successful in their chosen academic/career goals.

MATH 1817 College Preparatory Math III**3 Credit Hours**

To provide the opportunity for students to master math skills that they need to have to be successful in their chosen academic/career goals.

MATH 1819 Business Mathematics**3 Credit Hours**

This course deals with fundamental mathematical concepts useful for business decision making. Students will learn the mathematics involved in discounts, markups and markdowns, banking, simple and compound interest, annuities, payroll, inventory and depreciation.

Fulfills: Foundation Course AAS,AGS, Mathematics Requirement

Prerequisite: MATH 1809 Basic Applied Mathematics with a grade of C or better OR having passed Module 4 in College Preparatory Mathematics OR an appropriate placement score.

MATH 1821 Basic Algebra**3 Credit Hours**

Topics cover fundamental algebraic operations, factoring, algebraic fractions, linear & quadratic equations, exponents and radicals.

Fulfills: Developmental Course

Prerequisite: MATH 1809 Basic Applied Mathematics with a grade of C or better or MATH 1811 Preparatory Mathematics with a grade of C or better or ASSET Numerical Skills score of at least 40 or ACT Math score of at least 17 or SAT Mathematics score of at least 400 or Accuplacer Arithmetic Skills score of at least 70 or Compass Numerical/Pre-Algebra score of at least 22

MATH 1824 Intermediate Algebra**3 Credit Hours**

Topics include properties of real numbers, linear and quadratic equations, equations of lines, operations on polynomials and factoring, operations on rational expressions, functions, graphs of linear and quadratic functions, complex numbers, integer and rational exponents, radicals, systems of linear equations, and linear and quadratic inequalities.

Fulfills: Foundation Course AAS,AGS, Mathematics Requirement

Prerequisite: MATH 1821 Basic Algebra with a grade of C or better or ASSET Elementary Algebra score of at least 39 or ACT Math score of at least 21 or SAT Mathematics score of at least 460 or Accuplacer College Level Math score of at least 1 or Compass Algebra score of at least 41

MATH 1825 College Preparatory Math IV**1 to 2 Credit Hours**

To provide the opportunity for students to master math skills that they need to have to be successful in their chosen academic/career goals.

MATH 1826 Intermediate & College Algebra**5 Credit Hours**

A study of Intermediate and College Algebra including real number properties, products and factoring, fractions, exponents and radicals, linear and quadratic equations, functions and graphs, higher degree equations, systems of equations, logarithms, mathematical induction, and the binomial theorem.

Fulfills: Mathematics Requirement

Prerequisite: MATH 1821 Basic Algebra with a grade of C or better or ASSET Elementary Algebra score of at least 39 or ASSET Intermediate Algebra score of at least 41 or ASSET College Algebra score of at least 38 or ACT Math score of at least 21 or SAT Mathematics score of at least 460

MATH 1827 Elements of Statistics Lab**0 to 1 Credit Hours**

Computer lab focusing on applying statistical software to data analysis and decision making. Using Microsoft Excel software, hands-on applications include, but are not limited to, frequency distribution charts, histograms, descriptive statistics, linear regression, binomial probability, confidence intervals, and hypotheses testing.

Course Descriptions

MATH 1828 College Algebra **3 Credit Hours**

A study of polynomial, rational, exponential, and logarithmic functions and their graphs; complex numbers, systems of equations and inequalities, and an introduction to matrices and determinants. Additional topics may include conic sections, partial fractions, sequence and series, discrete mathematics, probability, and the binomial theorem.

Fulfills: Foundation CourseAA,AS,AGS,AAS, Mathematics Requirement

Prerequisite: MATH 1824 Intermediate Algebra with a grade of C or better OR having passed Module 12 in College Preparatory Mathematics OR appropriate placement score.

MATH 1829 Elements of Statistics **0 or 3 Credit Hours**

The course will cover elementary descriptive statistics, probability, various distributions, confidence intervals, sampling methods, hypothesis testing, and correlation and regression.

Fulfills: Foundation CourseAA,AS,AGS,AAS, Mathematics Requirement, Natural Science Requirement, Non-Laboratory Course

Prerequisite: MATH 1828 College Algebra with a grade of C or better or ASSET College Algebra score of at least 38 or ACT Math score of at least 26 or SAT Mathematics score of at least 540 or Accuplacer College Level Math score of at least 86

MATH 1830 Trigonometry **3 Credit Hours**

A study of the trigonometric functions, identities, complex numbers, and solutions of triangles.

Fulfills: Foundation CourseAA,AS,AGS,AAS, Mathematics Requirement, Natural Science Requirement, Non-Laboratory Course

Prerequisite: MATH 1828 College Algebra with a grade of C or better OR MATH 1826 Intermediate & College Algebra with a grade of C or better OR appropriate placement score.

MATH 1831 Business Calculus **3 Credit Hours**

A condensed study of differential and integral calculus with an emphasis on applications in the areas of business and economics.

Fulfills: Foundation CourseAA,AS,AGS,AAS, Mathematics Requirement, Natural Science Requirement, Non-Laboratory Course

Prerequisite: MATH 1828 College Algebra with a grade of C or better OR MATH 1826 Intermediate & College Algebra with a grade of C or better OR appropriate placement score.

MATH 1832 Analytic Geometry-Calculus I **5 Credit Hours**

A study of limits, differentiation, definite and indefinite integration of polynomial, trigonometric, exponential, logarithmic and inverse trigonometric functions.

Fulfills: Foundation CourseAA,AS,AGS,AAS, Mathematics Requirement, Natural Science Requirement, Non-Laboratory Course

Prerequisite: MATH 1830 Trigonometry with a grade of C or better (or high school equivalent AND ASSET College Algebra score of at least 38 or ACT Math score of at least 26 or SAT Mathematics score of at least 540 or Accuplacer College Level Math score of at least 86)

MATH 1833 Linear Algebra **3 Credit Hours**

Basic concepts of linear algebra with applications.

Prerequisite: MATH 1832 Analytic Geometry-Calculus I with a grade of C or better

MATH 1834 Analytic Geometry-Calculus II **5 Credit Hours**

A continuation of Analytic Geometry and Calculus I covering volume, work, advanced methods of integration, indeterminate forms, improper integrals, and series.

Prerequisite: MATH 1832 Analytic Geometry-Calculus I with a grade of C or better

MATH 1836 Analytic Geometry-Calculus III **3 Credit Hours**

A study of vector functions, partial differentiation, multiple integrals, and moments of inertia.

Prerequisite: MATH 1834 Analytic Geometry-Calculus II with a grade of C or better

MATH 1838 Differential Equations **3 Credit Hours**

A study of ordinary differential equations, including but not limited to both linear and nonlinear first and higher-order differential equations, and their applications.

Prerequisite: MATH 1836 Analytic Geometry-Calculus III with a grade of C or better

MATH 1840 Intro to Contemporary Math **3 Credit Hours**

This course explores uses of mathematics in the contemporary world. Topics include: management science, statistics, coding of information, social choice and decision making, geometry of growth and symmetry.

Prerequisite: MATH 1828 College Algebra with a grade of C or better OR MATH 1826 Intermediate & College Algebra with a grade of C or better OR appropriate placement score.

MATH 1841 Trigonometry - Honors **3 Credit Hours**

A study of trigonometric functions, identities, complex numbers, and solutions of triangles.

MATH 1853 Math for the PreHospital Provd **3 Credit Hours**

This course will provide the student with a working knowledge of all math formulas and equations relative to patient care in the pre-hospital emergency environment. Students will participate in mathematics and fractions review, learn systems of measurement, and drug dosage calculations in for the non-emergency and emergency environments. Prerequisite: Consent of Instructor

Fulfills: Foundation Course AAS, Mathematics Requirement, Math check w/advisor

Prerequisite: Enrollment by consent of instructor.

MEASUREMENT

MEAS 1100 Common Technical Skills **3 Credit Hours**

This web based course introduces the student to the basic skills necessary to pursue further training in Natural Gas Measurement. Skills will include applied mathematics, physics and basic computer operation.

MEAS 1101 Gas Industry Concepts **5 Credit Hours**

This combination of instructor led and web based training introduces the student to the laws of fluid mechanics and gas measurement techniques commonly used in the industry.

MEAS 1102 Instrumentation & Controls **9 Credit Hours**

This instructor led and web based course enables the student to understand and operate instrumentation that monitors and directs processes including pressure, flow, temperature, level, and material composition. The student will learn to use a variety of different forms of instrumentation such as electrical, electronic, and computerized control devices such as programmable logic controllers.

MEAS 1103 Gas Quality Analysis **4 Credit Hours**

This instructor led and web based course prepares the student to work with standard gas quality analyzers used in all aspects of the measurement industry. The student will learn how to collect and analyze gas quality data in order to make determinations about its quality and safety.

MEAS 1104 Flow Measurement**6 Credit Hours**

This instructor led and web based course prepares the student to install, maintain, and troubleshoot all industry standard gas measurement devices. The student will also learn how to interpret data from popular brands of flow computers and modify software parameters for specified applications.

MEAS 1105 Pressure & Volume Control**3 Credit Hours**

This instructor led and web based course prepares the student install, maintain, and troubleshoot the devices that regulate gas flow. Common types of control valves, pressure regulators, and safety relief devices are discussed. Topics include theories of operation, applications and safety concerns.

MEAS 1107 Gas Measurement Core Skills**3 Credit Hours**

This course enables the student to apply common technical concepts used in the gas measurement industry. Computer based and instructor led training are blended with hands on exercises to build a set of basic skills necessary to implement industry applied mathematics and physical laws necessary for advanced gas measurement training.

MEDICAL ASSISTANT**MDAS 1609 Healthcare Prof Development****2 Credit Hours**

Reviews the role and function of the Healthcare Documentation & Transcriptionist. The student will discuss development of professional work behaviors, analysis of the dynamics of the work environment, and exploration of professional development and career opportunities.

MDAS 1610 Medical Admin. Procedures**3 Credit Hours**

This course introduces the student to the administrative skills in the medical assistant profession. Specific topics in the course include effective telephone techniques, patient scheduling, legal and ethical responsibilities, medical records management, written communications, financial administration, and management of facilities.

MDAS 1615 Medical Assistant Internship**1 to 5 Credit Hours**

The application phase of the Medical Assistant program providing detailed education, training, and work-based experience and direct patient/client care in an ambulatory health care setting.

MDAS 1619 Spec Off Procedures-Medical**1 to 3 Credit Hours**

Through office simulation the student experiences some of the pressures and complexities of the medical office while gaining the knowledge and skills needed by the medical office assistant. Topics included are communication skills, receptionist activities, creating and maintaining patient records and financial records, work organization, priority setting, and career opportunities.

MDAS 1630 Medical Clinical Procedures**1 to 5 Credit Hours**

This course provides a thorough understanding of clinical, diagnostic, and laboratory procedures necessary to prepare the student as a competent and multi-skilled Medical Assistant. The knowledge and skills will be introduced in this module through lecture and psychomotor skills practice.

MDAS 1640 Health Information Management**3 Credit Hours**

This course introduces the student to the health care field and health records, emphasizing the roles of health information management professionals and the various functions of the health information department, including content and analysis of health records, storage and retrieval of health information, and common registries in various healthcare settings.

MDAS 1642 Medical Coding Internship**2 Credit Hours**

This course provides the opportunity to apply administrative skills in a supervised, non-remunerated practicum in a medical facility. Emphasis is placed on enhancing competence in administrative skills necessary for strengthening professional communication and interaction.

MDAS 1644 Basic Medical Lab Techniques**3 Credit Hours**

A study of basic medical laboratory techniques for Physician's office and medical laboratory personnel. Primary emphasis is on physical and chemical urinalysis, macroscopic hematology and instrument maintenance.

MDAS 1646 Emergency Preparedness**1 Credit Hours**

Provides healthcare professionals with an orientation for their possible future roles in disaster response and the importance of staying within the scope of practice of their profession. Students will be prepared to meet the expectations of their employers, to volunteer effectively, and to be competent and safe responders.

MDAS 1648 Medication Administration**1 Credit Hours**

Prepares students to prepare and administer medications via several routes including oral, parenteral (excluding intravenous), transdermal, and inhalation. Emphasis is placed on safe and accurate administration.

Prerequisite: MDAS 1680 Basic Pharmacology

MDAS 1650 Medical Professional Issues**2 Credit Hours**

Reviews the role and function of the medical assistant. This course focuses on the basic concept of the professional practice of medicine and the scope of practice of the medical assistant. Students discuss the personal and professional characteristics and legal and ethical standards for medical assistants, explore professional and personal therapeutic communication, and address time management and goal setting.

Prerequisite: MDAS 1655 Medical Administrative Aspects

MDAS 1652 Patient Care I**4 Credit Hours**

Introduces students to the patient care skills required by the medical assistant including standard precautions, vital signs, and patient transfer.

MDAS 1653 Patient Care II**4 Credit Hours**

Focuses on the techniques used by the medical assistant in direct patient care. Students learn to assist with a variety of exams.

Prerequisite: MDAS 1652 Patient Care I

MDAS 1655 Medical Administrative Aspects**4 Credit Hours**

Provides an introduction to the administrative skills needed for a medical office. Students learn how to maintain medical records (both paper and electronic), manage appointments, and perform routine office duties. Focuses on the financial aspects of the medical office including accounts payable and accounts receivable. Students examine billing and collection procedures.

Prerequisite: MDAS 1672 Medical Terminology

MDAS 1657 Legal/Ethical Issues in Health**3 Credit Hours**

This course introduces the U.S. legal system, laws and ethical issues and how they relate to health care.

MDAS 1670 Medical Style & Grammar**3 Credit Hours**

This course will apply the rules of proper grammar, punctuation, and medical style to use correct spelling and logical sentence structure and an integral course for Healthcare Documentation and Transcription Specialist. Healthcare documentation training falls into five distinct content areas: English Language, Medical Knowledge, technology, Medico-legal aspects of the Healthcare record and healthcare documentation practice.

Course Descriptions

MDAS 1671 Healthcare Doc Trans I

3 Credit Hours

A course planned to provide initial training for students enrolled in the medical transcription and/or medical assistant program. The student is introduced to transcription and/or editing of authentic healthcare documents, incorporating basic-level skills in English language, technology, medical knowledge, proofreading, editing, and research while meeting progressively demanding accuracy standards.

MDAS 1672 Medical Terminology

3 Credit Hours

Medical Terminology includes medical terms commonly encountered in the day-to-day activities of medically oriented students. Each lesson consists of prefixes, root words and/or suffixes, exercises, pronunciation of terms, practical applications, and review sheets.

MDAS 1673 Medical Coding I

3 Credit Hours

Medical Coding I is designed to provide students the basic guidelines and rules to use with this nomenclature and classification system.

MDAS 1674 Medical Coding II

3 Credit Hours

Medical Coding II is designed to provide students more advanced guidelines and rules to use this nomenclature classification system. Students will continue to learn coding in further detail beyond Medical Coding I.

Prerequisite: MDAS 1673 Medical Coding I

MDAS 1675 Medical Coding III

4 Credit Hours

Medical Coding III course is designed to provide students with a basic understanding of the CPT (Common Procedural Terminology) and HCPCS (Health Care Procedure Coding System).

Prerequisite: MDAS 1673 Medical Coding I

MDAS 1676 Healthcare Doc Trans II

3 Credit Hours

A course planned to provide intermediate training for students enrolled in machine transcription of medical terminology that a beginning transcriptionist is likely to encounter in case histories, correspondence, x-ray or pathological reports, and some of the medical specialties currently recognized by the American Medical Association.

Prerequisite: MDAS 1672 Medical Terminology

MDAS 1679 Healthcare Doc&Trans Spec Prac

2 Credit Hours

This course provides the opportunity to apply administrative skills in a supervised, non-remunerated practicum in a medical facility. Emphasis is placed on enhancing competence in administrative skills necessary for strengthening professional communication and interaction.

MDAS 1680 Basic Pharmacology

3 Credit Hours

This course is designed to teach the physiological effects and clinical use of medications that may be administered in the prevention/management of health care conditions. This includes a general knowledge of use, action, dosage, side effects, contraindications of medications and patient education suggestions. Safe and legal practices are stressed throughout the course.

MDAS 1683 Cardiopulmonary Resuscitation

1 to 3 Credit Hours

This course covers the knowledge and skills required to provide temporary and immediate care to a person who has ceased breathing or has suffered a cardiac arrest. Successful completion of this course provides for certification by American Heart Association First Aid; and Adult, Child, and Infant CPR.

MDAS 1686 Cardiology&Electrocardiography

1 Credit Hours

This course provides the student with the pathophysiology, and recognition of acute and chronic cardiovascular disease processes. Basic electrocardiography, with emphasis on clinical application, provides the student with an understanding of the components represented on an electrocardiogram (EKG). This course introduces the student to the 3-Lead and 12-Lead electrocardiogram in acute and chronic disease processes that affect the electrical and mechanical activity of the heart. Pulmonary function is also studied during this class.

Prerequisite: Full admission into Medical Assistant program

MEDICAL LAB TECHNICIAN

MLTC 1500 MLT:Intro/Med Lab,Urin,Body Fl

0 or 3 Credit Hours

An introduction to the medical laboratory and routine urinalysis, and a survey of special urinalysis and body fluids analysis. Proper use and care of related laboratory equipment and basic quality control is demonstrated.

Prerequisite: Enrollment by consent of instructor.

MLTC 1501 Phlebotomy Clinical

1 Credit Hours

Practical experiences in specimen collection at a health care facility. Requires a quota performance to meet certification agency guidelines.

Prerequisite: MLTC 1503 Principles of Phlebotomy or consent of instructor.

MLTC 1502 Hematology & Coagulation

5 Credit Hours

This course will cover the development and pathology of the the human blood cells and the mechanisms of blood coagulation. Students will learn the theory and skills required to perform medical laboratory testing in Hematology and Coagulation.

Prerequisite: Enrollment by consent of instructor.

MLTC 1503 Principles of Phlebotomy

3 Credit Hours

This class is an overview of the principles and practice of phlebotomy. The course will emphasize safety, specimen collection, and specimen processing. Students will learn the basic skills required to collect a blood specimen.

MLTC 1504 Clinical Chemistry I

4 Credit Hours

Clinical Chemistry involves the principles and procedures of quantitative analysis of blood and body fluids and their variations in health and disease. Students learn the different instrumentation available in the medical laboratory.

Prerequisite: CHEM 1802 Fundamentals of General Chem or equivalent.

MLTC 1505 MLT:Clinical Microbiology I

5 Credit Hours

A study of clinical microbiology as it relates to human pathogenic bacteria, normal flora, and associated disease states. Methods of examination, identification, and susceptibility analysis are practiced and discussed. This course is designed to enable students to learn the theory and application of skills required to perform Clinical Microbiology in a medical laboratory.

Prerequisite: LIFE 1412 Principles of Microbiology or equivalent.

MLTC 1506 MLT:Clinical Microbiology II

3 Credit Hours

A study of clinical microbiology that includes parasites, fungi, mycobacteria, and viruses that cause human diseases. Methods of examination and identification of these organisms are also covered. This course is designed to enable students to learn the theory and application of skills required to perform Clinical Microbiology II in a medical laboratory.

Prerequisite: LIFE 1412 Principles of Microbiology or equivalent.

MLTC 1508 MLT:Blood Banking **0 or 5 Credit Hours**

A study of the various blood group systems. Methods of blood group antigen identification, antibody identification and compatibility testing are covered. Proper use and care of related laboratory equipment is demonstrated.

MLTC 1509 MLT:Immunology & Serology **0 or 3 Credit Hours**

A basic study of the theory and principles of the immune response and antigen-antibody interaction. Common serological procedures are covered.

Prerequisite: Enrollment by consent of instructor.

MLTC 1510 MLT:Clinical Chemistry II **2 Credit Hours**

Clinical Chemistry involves the principles and procedures of quantitative analysis of blood and body fluids and their variations in health and disease. Students learn the different instrumentation available in the medical laboratory.

Prerequisite: CHEM 1802 Fundamentals of General Chem or equivalent.

MLTC 1511 MLT:Sem in Laboratory Medicine **1 Credit Hours**

A study of selected laboratory analysis and topics.

Prerequisite: Enrollment by consent of instructor.

MLTC 1512 Basic Med Lab Techniques **1 to 3 Credit Hours**

A study of basic medical laboratory techniques for Physician's office and medical laboratory personnel. Primary emphasis is on physical and chemical urinalysis, microscopic hematology and instrument maintenance.

Prerequisite: Enrollment by consent of instructor.

MLTC 1513 MLT:Capstone Sem in Lab Med **1 Credit Hours**

A study of resume' building, personal scheduling, certification review and teaching as related to the medical laboratory.

MLTC 1514 Med Lab:Directed Studies **1 to 4 Credit Hours**

An individualized plan of study designed to supplement previous coursework. For the transfer or advanced standing student. Study may include any subject area of Medical Laboratory Technology. May be repeated.

Prerequisite: Enrollment by consent of instructor.

MLTC 1519 MLT Clinical Practicum I **1 to 4 Credit Hours**

Practical experiences in an affiliated health care facility in specimen collection, urinalysis, hematology, coagulation and serology.

Prerequisite: MLTC 1500 MLT:Intro/Med Lab,Urin,Body FI AND MLTC 1502 Hematology & Coagulation AND MLTC 1503 Principles of Phlebotomy AND MLTC 1509 MLT:Immunology & Serology

MLTC 1520 MLT Clinical Practicum II **0 or 4 Credit Hours**

Practical experiences in an affiliated health care facility in blood banking, chemistry and microbiology.

Prerequisite: MLTC 1504 Clinical Chemistry I AND MLTC 1505 MLT:Clinical Microbiology I AND MLTC 1506 MLT:Clinical Microbiology II AND MLTC 1508 MLT:Blood Banking AND MLTC 1510 MLT:Clinical Chemistry II AND MLTC 1511 MLT:Sem in Laboratory Medicine

MILITARY**MLTR 1020 Maintenance Manager** **3 to 5 Credit Hours**

This course provides the basic knowledge and skills for Motor Pool Operations and management. The course includes training in duties, responsibilities and procedures to conduct and manage a unit maintenance program, use of the automated Standard Army Maintenance System-Enhanced (SAMS1-E) program, shop operations, tool room procedures, supply and safety procedures and exchange pricing.

MLTR 1022 Physical Security **1 Credit Hours**

This course provides the prescribed standards and criteria for the physical security of sensitive conventional arms, ammunition, and explosives (AA&E), within the custody of the Department of the Army (DA) facilities. This course will also ensure that prescribed policies, procedures and standards are followed in accordance with Army regulations. It will also assign responsibilities for the effective implementation and application of physical security of AA&E consistent with operational and safety requirements.

MLTR 1025 SADBA **3 Credit Hours**

This course provides personnel with the knowledge and skills to perform the procedures and functionalities necessary to operate the TC-AIMS II software and hardware. After an introductory section giving an overview of the Army deployment process, training is designed to instruct the Unit Move Officer (UMO) in those particular procedures and functionalities assigned to the UMO profile in TC-AIMS II. Instructional use on system processes associated with system administration procedures which will include. Advance database installation and configuration. System administrator tools, job profiles, administrative reports and user profiles. Instruction is mainly hands-on training utilizing instructor-led and independent student practical exercises, demonstration and conference (lecture) type training.

MLTR 1026 Unit Movement I **3 Credit Hours**

This course provides personnel with the knowledge and skills to perform the procedures and functionalities necessary to operate the TC-AIMS II software and hardware. After an introductory section giving an overview of the Army deployment process, training is designed to instruct the Unit Move Officer (UMO) in those particular procedures and functionalities assigned to the UMO profile in TC-AIMS II with stress on data completion, maintaining and updating the Organizational Equipment List (OEL) and creating the Unit Deployment List (UDL). This course also offers a thorough practical understanding of Automatic Identification Identification Technology. Instruction is mainly hands-on training utilizing instructor-led and independent student practical exercises, demonstration and conference (lecture) type training.

MLTR 1027 Unit Movement II **3 Credit Hours**

This course provides personnel with the knowledge and skills to perform the procedures and functionalities necessary to operate the TC-AIMS II software and hardware. After an introductory section giving an overview of the Army deployment process, training is designed to instruct the Unit Move Officer (UMO) in those particular procedures and functionalities assigned to the UMO profile in TC-AIMS II with stress on data completion, maintaining and updating the Organizational Equipment List (OEL) and creating the Unit Deployment List (UDL). This course also offers a thorough practical understanding of Automatic Identification Identification Technology. Instruction is mainly hands-on training utilizing instructor-led and independent student practical exercises, demonstration and conference (lecture) type training. Students will complete an end-of-course exam.

Course Descriptions

MLTR 1028 Theater Operations

3 Credit Hours

This course provides personnel with the knowledge and skills to perform the procedures and functionalities necessary to operate the Transportation Coordinators' Automated Information for Movement System TC-AIMS II software and hardware. After an introductory section giving overview of the Army deployment process, training is designed to instruct the Unit Move Officer (UMO) in those particular procedures and functionalities assigned to the UMO profile in TC-AIMS II. Specifically, the course covers instructions on the system's capabilities in managing Movement Control procedures, Mode Management procedures, and Highway Regulations and Convoy Planning procedures. This course also offers a thorough practical understanding of Automatic Identification Technology. Instruction is mainly hands-on training utilizing instructor-led and independent student practical exercises, demonstration and conference (lecture) type training.

MLTR 1039 Building Maintenance Milit Fac

1 to 3 Credit Hours

This course will provide instruction to military service members and Department of Defense employees in the proper procedures and techniques necessary to perform facility maintenance and upkeep. Course includes administrative requirements and procedures on use of military forms and records, basic tools, masonry repair, painting, minor sheet rock repair, tile replacement, proper use of building materials, carpentry, minor plumbing and electrical maintenance.

MLTR 1040 Military Passeng-Carry Vehicle

1 to 3 Credit Hours

This course is designed to train an individual to operate a passenger vehicle including inspection, maintenance, observing safety procedures and adhering to appropriate traffic rules and regulations.

MLTR 1042 Military Petroleum Operations

1 to 3 Credit Hours

This course serves as an introduction to the United States Army's basic petroleum refueling operations. An emphasis will be on the use, operation, and maintenance of fueling vehicles and pumping equipment. The course will include the principles of record keeping, accountability, performing physical chemical tests, and observing for various forms of contaminants.

MLTR 1044 US Army Generator Operator Cor

1 to 2 Credit Hours

Students will be instructed in the operation and maintenance of United States Army electrical generation equipment. Focus will include fundamental electrical principles involving the operation of AC and DC equipment, including 1.5 KW (single phase) thru 60 KW (three phase) gas and diesel powered generators.

MLTR 1046 Field Sanitation Military Unit

1 to 2 Credit Hours

This course will give soldiers knowledge and hands on training in testing and purifying water in a field environment along with preventive medicine measures (PMM) against disease's associated with arthropods, rodents and personnel hygiene. Preventive measures will be instructed and demonstrated in the prevention of heat and cold injuries, and the proper construction of waste facilities in a field environment.

MLTR 1050 Battle Staff Non-Comm Officer

9 Credit Hours

This is a performance-oriented course of instruction designed to prepare Sergeants through Sergeant Majors for positions of responsibility as Staff Non-Commissioned Officers. Major subject areas include risk management; small group process; supply operations; transportation/ tactical movement planning; reconstitution; graphics and overlays; combat support; military decision making process (MDMP); plans, orders, and annexes; combat records and reports; intelligence preparation of the battlefield (IPB); military briefings; introduction to army battle command system (ABCS); information operations; urban operations; rehearsals; maneuver control system (MCS); and staff functions.

MLTR 1060 Standard Army Maint Sys Oper

3 to 5 Credit Hours

This course combines all aspects of a Maintenance Management System, and a repair part re-supply system through the use of the Standard Army Maintenance System - (SAMS) Software. Theory and application of both manual and automated tasks are presented through the use of Seminar and practical exercises. Repair part system areas of major emphasis include parts ordering procedures, Document Register management, and parts stockage and management. Maintenance Management areas of emphasis will include preparation and use of the Army Maintenance and Inspection Worksheet, deferred maintenance, licensing, equipment dispatch, Army Oil Analysis Program, scheduling equipment services, and historical records. Related subject areas include accident reporting, physical security, material condition status reporting, publications, and query by example.

MLTR 1061 Standard Army Maint Sys Super

1 Credit Hours

This course provides students with an overview of the Electronic Standard Army Maintenance System (SAMS-E). This course provides the student with the ability to manage a vehicle fleet of various sizes while establishing and creating numerous templates for various reports. The student will become familiarized with SAMS-E User Interfaces and SAMS-E common processes. The student will get a clear understanding of the various processes and procedures used to navigate the SAMS-E application.

MLTR 1535 Combat Lifesaver Course

2 to 3 Credit Hours

This course is designed to address the significant challenges faced in providing emergency care in battlefield environment when medically trained personnel are unavailable. Instruction consists of a broad mix of basic and advanced life support techniques and strategies. Major areas of emphasis include care under fire, tactical field care, and casualty evacuation specifically focusing on immediately life-threatening and potentially correctable medical problems. Students with or without prior medical knowledge will gain valuable emergency medical skills used in military operations.

MLTR 1536 CombatLifesaverRecertification

1 Credit Hours

This course emphasizes the integration of the Basic and the Advanced emergency medical skills and proper procedures of emergency care in the pre-hospital setting. Each task allows for individual and collective practice of specific skills. Appropriate test and evaluation sessions are designed to assure proficiency of critical medical skills at all levels. The course covers all the fundamental skills necessary to meet the Department of the Army and Department of Transportation's requirement for Semi-annual sustainment and skills validation.

MLTR 1570 Suicide Intervention

1 Credit Hours

This is a course designed to provide students and others designated as caregivers an introduction to suicide prevention and intervention. Course incorporates simulated experiences and emphasizes helping concepts on how to specifically recognize risk and intervene to prevent the immediate risk of suicide.

MLTR 1626 Weapons Storage Facility Oper

1 to 3 Credit Hours

This course is designed to train an individual to do various levels of arms storage facility operations, including inspection and maintenance of small arms, maintenance record keeping, and the appropriate physical security measures.

MLTR 1627 Mgmt of Weapon Stor Facilities

2 Credit Hours

This course is designed to train an individual to do various levels of arms storage facility operations, including inspection and maintenance of small arms, maintenance record keeping, and the appropriate physical security measures.

MLTR 1763 Instructor Training Course 1 to 5 Credit Hours

This course is for students preparing to facilitate or conduct training in a formal setting. The course provides students with the skills necessary to evaluate training, preparation of lesson plans, multimedia presentations, hands-on and lecture techniques, as well as written assessments of learning objectives.

MLTR 1765 Physical Readiness TL Course 3 Credit Hours

This course is designed to provide the student with information on the basic physiological functions specific to exercise science and the effects of physical exercise on the human body. The following components of effective physical fitness will be covered: Cardio respiratory (CR) endurance, muscular strength, muscular endurance, and body composition.

MLTR 1795 PBUSE for Operators 3 Credit Hours

This course provides an overview of the procedures used by organizations to control and account for facilities, supplies and equipment through the use of the Property Book Unit Supply Enhanced - (PBUSE) Software. Theory and application of both manual and automated tasks are presented through the use of Seminar and practical exercises. Procedures used that enable an organization to account for resources and provide managers with logistical data needed to ascertain spending trends and to account for property will be covered. Major areas of emphasis will include Property Accountability, Property Functionality, Equipment Inventories, Supply Functionality and Telecommunications Capabilities.

MLTR 1796 PBUSE for Managers & Leaders 1 to 4 Credit Hours

This course serves as an introduction to procedures used by Commanders, Staff Officers, Property Book Officers, and government agencies for maintenance and accounting for facilities, supplies and equipment through the use of the Property Book Unit Supply Enhanced - (PBUSE) Software. Students will be introduced to the functional area and system operations of both manual and an automated logistic System that enables the organization to account for resources and property. Student will learn how to use the different functions of the system through lectures and practical exercises and cover the functions such as: Property Accountability, Property Functionality, Equipment Inventories, Budget and Supply Functionality, Logistical Planning and Telecommunication Capabilities.

MLTR 1800 Laser Sighting & Engage System 0.5 to 1 Credit Hours

This course is designed to instruct students on local military procedures for issue, operation, troubleshooting, and turn-in of tactical simulator equipment.

MLTR 1815 Military Digital Train Mgmt Sy 1 to 2 Credit Hours

This course is designed to enable Department of Defense personnel and other interested parties to acquire the skills needed to prepare training plans, coordinate training, resource training events, evaluate and assess training and produce applicable training reports.

MLTR 1921 Nuclear Bio & Chem Resp Operat 1 to 5 Credit Hours

This course is designed to teach students the primary techniques and skills necessary for analysis, investigation, and defensive operations in areas suspected of Nuclear, Biological, or Chemical contamination. Though extensive study of each critical area, students will gain the skills necessary to predict and determine the extent of possible damages, losses, and personnel injury in a defined population. Students will learn the fundamental techniques of defensive planning, reporting criteria, and the role of advising senior managers of potential threats and possible courses of action. In addition to extensive lectures, hands on training will consist of the proper use, maintenance and deployment of monitoring equipment, including decontamination procedures, and personal/organizational protective measures.

MLTR 1922 Transport Hand&Stor-Explos Mat 1 to 3 Credit Hours

The purpose of this course is to provide the student with the information pertaining to the responsibilities of management of munitions and explosive materials in the workplace. It includes an overview of a munitions operation and maintenance program and provides information for establishing work priorities and procedures for usage and protection. Information will be provided for developing plans and adequate record systems. Other areas to be stressed are the needs for organizational leadership and compliance to governmental regulations and the effective communication of the areas.

MLTR 1924 Master Driver Course 3 Credit Hours

The Master Drivers Course provides an overview of the procedures used by Military Commanders to control and account for training, testing, evaluating, and licensing vehicle and equipment operators. Theory and application of both manual and automated tasks are presented through the use of seminar and practical exercises. Safety requirements for motor vehicles and accountability for training, testing, recording, evaluating, and licensing for all vehicle and equipment operators who utilize military equipment will be included. Department of Defense, Army State and Local Laws, regulations and policies will be reviewed.

MLTR 1925 Tactical Radio Communication 3 Credit Hours

This course provides students with the fundamental skills and abilities to successfully operate, maintain, and troubleshoot Military radio systems in a tactical environment. Skills will be reinforced through extensive practical exercises using a wide variety of radio systems currently used in tactical Military units.

MUSIC**MUSI 1000 Beginning Guitar 1 Credit Hours**

A course on acoustical guitar designed to teach the beginning student in the open classroom through the personal touch blended with audio-visual teaching.

MUSI 1001 Dir Ind Study/Instr Music 1 to 3 Credit Hours

Directed independent study is a structured learning experience offered as an extension of the regular curriculum. It is intended to allow students to broaden their comprehension of the principles of, and their grasp of competencies associated with academic, nonvocational disciplines. Its purpose is to supplement extant courses with individualized, in-depth learning experiences. Such learning experiences may be undertaken independent of the traditional classroom setting, but will be appropriately directed and supervised by regular instructional staff.

Fulfills: Performance Course, Physical Education Requirement

MUSI 1002 Introduction to Music 3 Credit Hours

A humanities course designed for the non-music major. A background in music is not necessary for enrollment. Emphasis is placed on the development of competence in listening to music through the study of the sources, mediums, elements of music, musical forms, composers, and periods of music.

Fulfills: Breadth course AA, AS, AGS,AAS, Humanities Requirement

MUSI 1003 Dir Ind Study/Vocal Music 1 to 3 Credit Hours

Directed independent study is a structured learning experience offered as an extension of the regular curriculum. It is intended to allow students to broaden their comprehension of the principles of, and their grasp of competencies associated with academic, nonvocational disciplines. Its purpose is to supplement extant courses with individualized, in-depth learning experiences. Such learning experiences may be undertaken independent of the traditional classroom setting, but will be appropriately directed and supervised by regular instructional staff.

Fulfills: Performance Course, Physical Education Requirement

Course Descriptions

MUSI 1004 Intermediate Guitar **1 Credit Hours**

A course on acoustical guitar designed to teach the intermediate student in the open classroom through the personal touch blended with audio-visual teaching.

Fulfills: Performance Course, Physical Education Requirement

Prerequisite: MUSI 1000 Beginning Guitar

MUSI 1005 Instrumental Ensemble **1 Credit Hours**

This class is designed for an instrumental or keyboard music major or someone desiring to improve his or her playing ability. This class will meet for a minimum of one and a half hours per week, containing no more than six to eight students as a maximum.

MUSI 1006 Community College Orchestra **1 Credit Hours**

Designed for the study of orchestra music for college and community participants. Literature from the various periods of music will be studied with concerts to be given in the fall and spring. College and community participants may play wind, string, or percussion instruments. No fee is charged unless the course is taken for credit.

Fulfills: Performance Course, Physical Education Requirement

Prerequisite: Ability to play an orchestra instrument.

MUSI 1007 Pep Band **1 Credit Hours**

A performance-oriented music ensemble designed for performance at college pep events, social functions, and activities beyond the campus as scheduled. **RESTRICTION:** Audition and Consent of Instructor.

Prerequisite: By audition and consent of instructor.

MUSI 1008 Band **1 to 2 Credit Hours**

A humanities course with enrollment open to all students. Performance of music common in the field of concert band literature.

Fulfills: Performance Course, Physical Education Requirement

MUSI 1009 Jazz Ensemble **2 Credit Hours**

A humanities course with enrollment open to all students. Rehearsal scheduled for three hours every week with extra rehearsals called. Performances are scheduled playing music in the stage band repertoire. **RESTRICTION:** Audition or Consent of Instructor.

Fulfills: Performance Course, Physical Education Requirement

Prerequisite: By audition or consent of instructor.

MUSI 1010 Choir **1 to 2 Credit Hours**

The Barton County Community College Choir is open to all students and requires no audition for membership. Music literature to be performed is carefully selected from many stylistic periods and is rehearsed utilizing those choral techniques necessary for high-level performance standards. The choir will appear in concert several times during the academic year both on and off campus.

Fulfills: Performance Course, Physical Education Requirement

MUSI 1011 Introduction to Music - Honors **3 Credit Hours**

This course is designed for the non-music major. A background in music is not necessary for enrollment. Emphasis is placed on the development of competence in listening to music through the study of the sources, mediums, elements of music, musical forms, composers, and periods of music.

MUSI 1014 Vocal Ensemble **1 to 2 Credit Hours**

This ensemble is comprised of students selected from the choir by auditions held in the fall. Enrollment is for a full academic year. The primary purpose of the group is to perform music selected for audience appeal. Numerous performances are scheduled for civic clubs, conventions, and high schools in the areas served by the college. **RESTRICTION:** By Audition.

Fulfills: Performance Course, Physical Education Requirement

Prerequisite: By audition

MUSI 1016 Aural Skills I **2 Credit Hours**

Aural Skills I is the first of four courses in aural skills designed primarily for students interested in developing aural perception of music and skill in sightsinging. Basic activities include student dictation of melodic, harmonic, and rhythmic exercises and the development of speed and accuracy in sightsinging. Aural Skills I is required for all music majors, and taken concurrently with Harmony I.

Prerequisite: concurrent enrollment in MUSI 1018 Harmony I

MUSI 1018 Harmony I **3 Credit Hours**

Harmony I is the first of four music theory courses for students highly interested in music. Fundamentals of music notation, scales, intervals, triads, connection of chords, and cadences are covered. Harmony I is required for all music majors, and taken concurrently with Aural Skills I.

MUSI 1020 Aural Skills II **2 Credit Hours**

The second of four courses in aural skills designed primarily for students interested in developing aural perception of music and skill in sight singing. Basic activities include student dictation of melodic, harmonic, and rhythmic exercises and the development of speed and accuracy in sight singing. Aural Skills II is required for all music majors, and taken concurrently with Harmony II.

Prerequisite: MUSI 1016 Aural Skills I

MUSI 1022 Harmony II **3 Credit Hours**

Harmony II is the second in a sequence of four music theory courses for students highly interested in music. This course includes a study of all diatonic triads and their inversions, the dominant and supertonic seventh chords, introduction to modulation techniques, and secondary dominant functions. Keyboard application of course work is integrated with class piano laboratory work. Harmony II is required for all music majors and taken concurrently with Aural Skills II.

Prerequisite: MUSI 1018 Harmony I

MUSI 1026 Aural Skills III **2 Credit Hours**

The third of four courses in aural skills designed primarily for students interested in developing aural perception of music and skill in sightsinging. Basic activities include student dictation of melodic, harmonic, and rhythmic exercises and the development of speed and accuracy in sightsinging. Aural Skills III is required for all music majors, and taken concurrently with Harmony III.

Prerequisite: MUSI 1020 Aural Skills II

MUSI 1027 Aural Skills IV **2 Credit Hours**

The final course in aural skills designed primarily for students interested in developing aural perception of music and skill in sightsinging. Basic activities include student dictation of melodic, harmonic, and rhythmic exercises and the development of speed and accuracy in sightsinging. Aural Skills IV is required for all music majors and taken concurrently with Harmony IV.

Prerequisite: MUSI 1026 Aural Skills III

MUSI 1028 Harmony III **3 Credit Hours**
Harmony III is the third in sequence of four music theory courses designed for students highly interested in music. This course includes a study of modulation to closely related keys, binary and ternary forms, less common chord progressions and part writing procedures, diatonic seventh chords, borrowed chords, secondary dominants and leading tone chords, and non-dominant diminished seventh chords. Keyboard application of course work is integrated with class piano laboratory work. Harmony III is required for all music majors and taken concurrently with Aural Skills III.
Prerequisite: MUSI 1022 Harmony II

MUSI 1029 Music Elem Classroom Teacher **3 Credit Hours**
An education course designed for the elementary education major. A background in music is not necessary for enrollment. Emphasis is placed on development of music skills and techniques to help the classroom teacher integrate music into the classroom.

MUSI 1034 Harmony IV **3 Credit Hours**
Harmony IV is the last in a sequence of four music theory courses designed for music majors or teachers highly interested in music. This course includes a study of altered chords not previously covered, advanced modulations and a survey of twentieth century compositional techniques. Keyboard application of course work is integrated with class piano laboratory work.
Fulfills: Performance Course, Physical Education Requirement
Prerequisite: MUSI 1028 Harmony III

MUSI 1038 Private Voice **1 to 5 Credit Hours**
A thirty or sixty minute lesson per week in which the study of vocal techniques includes the development of breath control, tone production, good intonation, clear diction, and musical interpretation. Repertoire is selected from standard vocal classical literature. Performance on recitals is expected at request of the instructor. **RESTRICTION:** Consent of Instructor.
Prerequisite: concurrent enrollment in MUSI 1039 Private Voice Lab Enrollment by consent of instructor

MUSI 1039 Private Voice Lab **0 Credit Hours**
In voice lab the students perform for each other the songs that have been prepared in lesson time. Suggestions for stage deportment are given and vocal problems are discussed. Occasionally, record examples are presented and an introduction to English and Italian diction is presented.
Prerequisite: concurrent enrollment in MUSI 1038 Private Voice Enrollment by consent of instructor

MUSI 1040 Class Voice **1 Credit Hours**
This class is designed for an instrumental or keyboard music major or someone desiring to improve his or her singing and has not had previous study. This class will meet three times a week for a minimum of one and a half hours, containing no more than four to six students as a maximum. If possible, voices would be placed in high or medium low range.
Fulfills: Performance Course, Physical Education Requirement

MUSI 1042 Class Piano A **1 to 2 Credit Hours**
This course is the first semester of a sequential study to provide the fundamental skills to meet piano proficiency requirements for the music major. It is integrated with the harmony and aural skills course offered in the music curriculum. **RESTRICTION:** This is a sequential course for music majors.
Prerequisite: This is a sequential course for music majors

MUSI 1043 Adult Beginning Piano **1 to 2 Credit Hours**
The beginning level of class piano is designed for adults who have had little or no background in piano. It can be a review of piano skills but no prior knowledge of music is required. Basic music theory is presented along with piano repertoire.

MUSI 1044 Class Piano B **1 to 2 Credit Hours**
This course is the second semester of a sequential study to provide the fundamental skills to meet piano proficiency requirements for the music major. It is integrated with the harmony and aural skills course offered in the music curriculum.
Fulfills: Performance Course, Physical Education Requirement
Prerequisite: MUSI 1042 Class Piano A or equivalent.

MUSI 1045 Adult Intermediate Piano **1 to 2 Credit Hours**
This course is for anyone who has had Adult Beginning Piano or would like to further knowledge of the piano. Familiar tunes along with some classics are studied. Music theory is presented.
Fulfills: Performance Course, Physical Education Requirement
Prerequisite: MUSI 1043 Adult Beginning Piano

MUSI 1046 Class Piano C **1 to 2 Credit Hours**
This course is a third semester of a sequential study to provide the fundamental skills to meet piano proficiency requirements for the music major. It is integrated with the harmony and aural skills course offered in the music curriculum.
Fulfills: Performance Course, Physical Education Requirement
Prerequisite: MUSI 1044 Class Piano B or equivalent.

MUSI 1048 Class Piano D **1 to 2 Credit Hours**
The course is a fourth semester of a sequential study to provide the fundamental skills to meet piano proficiency requirements for the music major. It is integrated with the harmony and aural skills course offered in the music curriculum.
Fulfills: Performance Course, Physical Education Requirement
Prerequisite: MUSI 1046 Class Piano C or equivalent.

MUSI 1049 Applied Piano-Adults **1 to 2 Credit Hours**
This course is designed to enable adults with previous keyboard experience to redevelop technical skills and broaden the scope of repertoire through solo and ensemble experiences, group and private lesson combinations. **RESTRICTION:** This course is for non-music majors.
Fulfills: Performance Course, Physical Education Requirement
Prerequisite: For non-music majors.

MUSI 1051 Applied Piano **1 to 5 Credit Hours**
This course is designed to assist the more proficient pianist to perform from moderately difficult standard repertoire to difficult recital repertoire. The performance on joint or solo recitals will entitle the student to earn up to five hours credit a semester. This will be done with the consent of the instructor. The serious pianist is encouraged to consider the lesson for two hours credit each semester. **RESTRICTION:** Piano skills equivalent to a minimum of four to five years of piano study.
Fulfills: Performance Course, Physical Education Requirement
Prerequisite: Piano skills equivalent to 4 or 5 years piano study

MUSI 1052 Organ **1 to 5 Credit Hours**
This course is designed to teach beginning fundamentals of articulation, pedaling, registration, service playing, knowledge of the instrument, and accompanying on the organ. Service as well as recital repertoire is covered. Teaching is done in private and class settings. The student will be scheduled for one-hour lesson weekly with a minimum of five hours of outside preparation expected each week for two credit hours. **RESTRICTION:** Piano skills equivalent to a minimum of four to five years of piano study.
Fulfills: Performance Course, Physical Education Requirement
Prerequisite: Piano skills equivalent to 4 or 5 years piano study

MUSI 1076 Applied Music Indiv-Jazz Piano **1 to 2 Credit Hours**
Provides the student a sixty-minute individual lesson per week. Study is planned with emphasis on tone production through proper application of principles of embouchure and breath support. Development of basic techniques through the study of scales and arpeggios in all keys. Performance recital at request of instructor.
Fulfills: Performance Course, Physical Education Requirement

MUSI 1086 Jazz Improvisation I **1 to 2 Credit Hours**
A humanities course open to students with the ability to play a keyboard, wind or percussion instrument, and a desire to learn improvisation techniques in the various jazz idioms. The class is a laboratory type, which meets two times a week.
Fulfills: Performance Course, Physical Education Requirement
Prerequisite: MUSI 1018 Harmony I or MUSI 1022 Harmony II Enrollment by consent of instructor.

MUSI 1088 Jazz Improvisation II **1 to 2 Credit Hours**
A continuation of Jazz Improvisation I.
Fulfills: Performance Course, Physical Education Requirement
Prerequisite: MUSI 1086 Jazz Improvisation I

MUSI 2056 Applied Music Indiv.-Clarinet **1 to 2 Credit Hours**
Provides the student a sixty-minute individual lesson per week. Study is planned with emphasis on tone production through proper application of principles of embouchure and breath support. Development of basic techniques through the study of scales and arpeggios in all keys. Performance on recital at request of instructor.

NATURAL GAS

NATG 1100 DC Circuit Fundamentals **3 Credit Hours**
The course is designed to acquaint students with the fundamentals of direct current (DC); circuits, the relationship between voltage, current, resistance, and power, the application of Ohm's and Kirchhoff's laws.

NATG 1105 AC Circuit Fundamentals **4 Credit Hours**
This course teaches students the fundamentals of Alternating Current (AC), including magnetism, waveforms, oscilloscopes, function generators, capacitance, inductance, reactance, impedance, resonance, power supplies, transformers, RC circuits, RL circuits, RLC circuits, and filters.

NATG 1110 Fundamentals of Natural Gas **3 Credit Hours**
The Fundamentals course provides the students with a basic understanding of natural gas, basic natural gas chemistry, gas quality, spot sampling, and the gas laws. This course will enable the students to understand the properties of natural gas and their relationship to the gas measurement and accounting process.

NATG 1115 Intro to Gas Technology **2 Credit Hours**
This course is intended to prepare employees in the natural gas distribution industry to perform identified job tasks in order to comply with federal regulations and industry standards.

NATG 1120 Intermediate Gas Technology **2 Credit Hours**
This course builds on knowledge gained in the Introduction to Gas Technology course. It is intended to prepare employees in the natural gas distribution industry to perform advanced identified job tasks in order to comply with federal regulations and industry standards.

NATG 1125 Electrical Devices & Controls I **3 Credit Hours**
This course teaches students to identify basic electrical/ electronic symbols in a schematic diagram, design a simple motor service in compliance with National Electrical Code mandates and recommendations, calculate voltage drop in a single or three phase AC service, and be familiar with the design, operation, and safety considerations of electrical components such as fuses, circuit breakers, overloads, conductors, conduits, contactors, and relays. Students will also learn to build and safely troubleshoot several electro-mechanical relay circuits.

NATG 1130 Electrical Devices Controls II **3 Credit Hours**
This course teaches students to identify the interconnection of electrical/ electronic symbols and apply this knowledge to circuit analysis and troubleshooting and explain the different types of hazardous area classifications and divisions. Students will also learn to wire and safely troubleshoot several ramping, reversing, slave starter, and control motor circuits.

NATG 1135 Basic Corrosion/Field Tech **3 Credit Hours**
This course is first in a series of courses designed to teach the basics of corrosion and field technician skills to students/technicians in pipeline and other related industries.

NATG 1140 Basic Corrosion **1 Credit Hours**
The National Association of Corrosion Engineers (NACE) Basic Corrosion Course is designed to impart a substantial part of the basic information available about corrosion and the means whereby it is controlled. It is intended to be comprehensive of the scope of current knowledge about corrosion of metals, deterioration of non-metals, electrochemical phenomena, elementary chemistry and practical control measures. The intent of the course is to provide theoretical background rather than in-the-field corrosion work.

NATG 1145 Gas Regulators **2 Credit Hours**
The Gas Regulators course enables students to develop a fundamental understanding of the operation of various gas regulators. In addition, students will learn how to perform maintenance on typical gas regulators used by the gas industry.

NATG 1150 Intro Prog Logic Controllers **3 Credit Hours**
This course enables the student to configure and apply programmable logic controllers (PLCs) to various automation scenarios. Given an operation specification, the student will be able to program the PLC to conform to typical automation requirements.

NATG 1155 Advanced Programmable Logic **4 Credit Hours**
An advance programmable logic controller (PLC) course designed to train the student in computerized automation of a gas pipeline using the ControlLogix PLC, a standard of the industry. The student will become familiar with the advanced features of the programming software and be able to create and troubleshoot ladder logic using an operation specification.

NATG 1160 Trench & Excavation Practices **2 Credit Hours**
This course will train students to operate excavation equipment (hydraulic excavator) in the field.

NATG 1165 Natural Gas Tech Internship **1 to 4 Credit Hours**
This course is designed to provide the student with practical work experience and on the job training within his or her chosen career field. Students will work with professionals in the field, learn the type of dedication necessary and observe working operations of the natural gas industry.

Course Descriptions

NATG 1170 Gas Measurement & Controls

4 Credit Hours

Gas Measurement and Controls will demonstrate why accurate gas flow measurement is necessary and will describe the components of a gas measurement system. Instructor led and hands on exercises will show how accurate gas flow measurements are important and can make the difference between profit and loss.

NETWORKING

NTWK 1030 Linux I

3 Credit Hours

This course will provide a thorough introduction and advanced coverage to Linux, covering the operating system, utilities, shell programming, the VI editor, job control and system administration.

NTWK 1046 Local Area Network Workstation

3 Credit Hours

This course prepares students to operate and manage Local Area Network (LAN) workstations and prepares to pass the current industry certification. Students learn to install, configure, deploy, monitor and maintain a LAN workstation. Migration from previous versions and new features are highlighted.

NTWK 1050 Networking I

3 Credit Hours

Networking I will provide an introduction to the features in all editions of Windows 2000. The student will learn how to install Windows 2000 Server through manual and automated installation routines. After installation, the student will learn about the various file systems and disk management functions available in Windows 2000. Additionally, the student will explore Active Directory services, networking protocols, routing and remote access.

Prerequisite: Windows 2003 Server

NTWK 1052 Microcomputer Repair & Upgrade

3 Credit Hours

This course will allow students to learn routine preventative maintenance for their PC including hardware troubleshooting, troubleshooting software, motherboard testing, adding replacement board and peripherals, and upgrading the central processing unit. Students may bring their own microcomputers to class for evaluation and/or upgrades.

NTWK 1053 Adv Microcmprtr Repair/Upgrade

3 Credit Hours

The emphasis of this course is to prepare the computer professional to obtain A+ Certification, which is a standard, developed to provide worldwide recognition for microcomputer service technicians. The hands-on course reviews all basic concepts and theory taught in Microcomputer Repair and Upgrade and then continues on with the advanced features of all aspects of microcomputers including configuring, upgrading memory, troubleshooting, and repair. All key areas of the A+ Certification exams will be reviewed.

Prerequisite: NTWK 1052 Microcomputer Repair & Upgrade or BSTC 1052

NTWK 1054 Computer Forensics & Invest

3 Credit Hours

This course covers topics related to criminal justice and computer technology and is, by its nature, a multi-disciplinary course. Since forensics is the use of science in a court of law; this course looks specifically at how one obtains evidence off of a computer and from network messages, preserving the evidentiary chain, and the legal aspects of the search and seizure of computers and related equipment/information.

NTWK 1057 Network +

3 Credit Hours

This course is designed to provide an introduction to networking technologies and prepare students to pass a vendor neutral networking certification exam. This course covers a wide range of material about networking, from careers in networking to local area networks, wide area networks, protocols, topologies, transmission media, and security. It not only introduces a variety of concepts, but also discusses in-depth the most significant aspects of networking, such as the TCP/IP protocol suite. In addition to explaining concepts, the course uses a multitude of real world examples of networking issues from a professional's standpoint, making it a practical preparation for the real world.

NTWK 1058 Networking Infrastructure

3 Credit Hours

The goal of this course is to teach a student how to install, manage, monitor, configure, and troubleshoot domain name services, Remote Access, Network Protocols, IP Routing, and WINS in a network operating system infrastructure. In addition, this course will teach the skills required to manage, monitor, and troubleshoot network address translation and certificate services.

NTWK 1059 Introduction to Networking

3 Credit Hours

Introduction to Networking will introduce students to the underlying concepts of telecommunications and networking. It is meant to provide a general overview of computer networks, and will focus on the terminology and technologies in current networking environments. Students in business and computer fields will learn the basic understanding of networking set up and how to access data across the network.

NTWK 1060 Unix I

3 Credit Hours

This course will provide a thorough introduction of UNIX, covering the operating system, utilities, shell programming, the VI editor, job control and system administration.

Prerequisite: NTWK 1046 Local Area Network Workstation or NTWK 1050 Networking I or BSTC 1046 or BSTC 1050 or consent of instructor.

NTWK 1061 Linux II

3 Credit Hours

The Linux II course is designed for individuals who want just the basics of Linux installation and administration into a broader study of the many security issues surrounding this operating system.

Prerequisite: NTWK 1060 Unix I with a grade of D or better or BSTC 1060 with a grade of D or better

NTWK 1068 Help Desk Fundamentals

1 to 3 Credit Hours

This course introduces students to service concepts, skills sets, career paths, and operations of the help desk industry. This course presents help desk theories from an educational perspective and provides an overview of the help desk for individuals interested in pursuing a career in customer support. This course also provides an overview of the knowledge, skills, and abilities necessary for employment in the user support industry. This course emphasizes problem-solving and communication skills in addition to technical skills.

NTWK 1070 Network Security

4 Credit Hours

This course will allow students to design, implement, and maintain an organization's network and computer security policies. Students will analyze computer networks to determine areas of weakness in an organization's security architecture, and suggest solutions for controlling those weaknesses. Students will learn how to track hackers when security breaches occur.

NTWK 1072 Information Security**3 Credit Hours**

This course examines principles of information security. Emphasis is placed on the confidentiality, integrity and availability of information in a technological setting. Security awareness, analysis, design, implementation and maintenance are explored. Students, who complete this class with a C or better, earn the NSTISSI (National Training Standard for Information Systems Security) 4011 certification in Information Systems Security. (pending certification approval)

NTWK 1080 Occupational Internship I**1 to 6 Credit Hours**

This course is designed to provide the student with practical work experience and on-the-job training within his or her chosen career field. Students will engage in experiences to enhance the development of their professional networking career.

NTWK 1083 Information Assurance**5 Credit Hours**

This course serves as an introduction to employing measures intended to protect and defend information systems by ensuring their availability, integrity, authentication, and confidentiality. Students will understand and be able to initiate procedures and technologies that assist in the protection of data systems to keep them secure.

NURSES AID**NAID 1219 Home Health Aide****2 Credit Hours**

This course is designed to provide the student with Home Health Aide knowledge and expertise in providing safe, competent care to the client. Emphasis is placed on assisting the client in activities of daily living, personal care and basic rehabilitation. Train new individuals entering the field to be caring, dedicated, and skilled paraprofessionals that provide care under the direction and supervision of a registered nurse. **RESTRICTION:** Successful completion of CASAS Reading Assessment and NAID 1229 Nursing Home Aide or Kansas Nurse Aide Certification.

Prerequisite: Successful completion of CASAS Reading Assessment and NAID 1229 Nursing Home Aide or Kansas Nurse Aide Certification.

NAID 1229 Nursing Home Aide**1 to 5 Credit Hours**

This course is designed to enhance basic care-giving skills, human understanding, and work-place skills and attitudes, all of which are necessary to render services and provide basic nursing care that is age appropriate, according to specific needs, as supervised by a professional. Emphasis is placed on the normal needs of the geriatric resident and specific individual physical, psychosocial, environmental, and spiritual needs. This course prepares students to sit for the state examination to gain certification as Nurse Aide. **RESTRICTION:** Successful Completion of CASAS Reading Assessment.

Prerequisite: Successful completion of CASAS Reading Assessment.

NAID 1235 Medication Aide**1 to 6 Credit Hours**

This course is designed to provide the student with a basic knowledge of oral medications and their safe administration. It covers the systems of the body and the effect of medications on these systems. Special emphasis is given to the aging process and what this does to the drug utilization by the body. **RESTRICTION:** Successful Completion of CASAS Reading Assessment and 1229 Nursing Home Aide or Kansas Nurse Aide Certification.

Prerequisite: Successful completion of CASAS Reading Assessment and NAID 1229 Nursing Home Aide or Kansas Nurse Aide Certification.

NURSING**NURS 1203 Dir Ind Study/Nursing****1 to 3 Credit Hours**

An individualized plan of study that is a structured learning experience designed to supplement previous coursework. It is intended to allow students to broaden their comprehension of the principles of, and their grasp of competencies within their career discipline. Such learning experiences may be undertaken independent of the traditional classroom setting, but will be appropriately directed and supervised by regular instructional staff.

NURS 1206 Fundamentals of Nursing**0 or 4 Credit Hours**

This course is an orientation to the nursing profession. The student is introduced to fundamental concepts and principles including standards of nursing care, which underlie and guide nursing practice. Basic nursing skills as well as basic pharmacology are presented.

Prerequisite: Admission to Nursing Program

NURS 1207 Mental Health I**0 to 2 Credit Hours**

Prerequisite: Admission to Nursing Program

NURS 1208 Mental Health Nursing II**0 or 4 Credit Hours**

This course will cover topics related to the delivery of complex mental health care. Specific health needs of individuals, families, and groups will be addressed. Mental health concepts will concentrate on adaptive/maladaptive behaviors and specific mental health disorders. Community resources will be examined in relation to specific types of support offered to racial, ethnic, economically diverse individuals and groups.

Prerequisite: NURS 1257 Medical Surgical Nursing III with a grade of C or better

NURS 1210 Gerontological Nursing**1 to 2 Credit Hours**

This course discusses the normal aging process in order to recognize deviations from normal. This course is an overview of the social, psychological and biological changes that accompany aging and the implications of these changes for the individual as well as for society.

Prerequisite: NURS 1255 Medical Surgical Nursing I with a grade of C or better

NURS 1222 ADN:Making the Transition**1 Credit Hours**

This course is designed to facilitate the transition of the LPN to the student role in the Associate Degree Nursing Program. Focus is on the philosophy of the nursing program and the college roles, and responsibilities of the student nurse, utilization of the nursing process, proficiency in communication skills and medication administration, and development of a personal strategy for successful completion of the ADN program.

Prerequisite: Completion of Practical Nursing Program with Current Kansas Licensure and Admission to the Associate Degree Nursing Program

NURS 1228 Pharmacology for Nurses**1 or 2 Credit Hours**

Prerequisite: Admission to Nursing Program

NURS 1250 Occupational Internship I**1 to 6 Credit Hours**

This course is designed to provide the student with practical work experience and on-the-job training within his or her chosen career field. Students will engage in experiences to enhance the development of their professional nursing role.

Prerequisite: Enrollment by consent of instructor

Course Descriptions

NURS 1251 Occupational Internship II 1 to 6 Credit Hours

This course is designed to provide the student with practical work experience and on-the-job training within his or her chosen career field. Students will engage in experiences to enhance the development of their professional nursing role.

Prerequisite: Enrollment by consent of instructor

NURS 1255 Medical Surgical Nursing I 0 or 4 Credit Hours

This course is an introduction to the area of adult medical-surgical nursing. Common, noncomplex medical surgical conditions and problems, which interfere with individual need fulfillment, are presented. Concepts in pharmacology and nutritional care are integrated throughout the course. Nursing skills necessary in dealing with these medical-surgical conditions are presented as well as psychosocial and emotional reactions are presented in order to study the individual in a holistic, humanistic manner.

Prerequisite: NURS 1206 Fundamentals of Nursing with a grade of C or better

NURS 1256 Medical Surgical Nursing II 0 to 6 Credit Hours

This course is a continuation of adult medical-surgical nursing I. Medical-Surgical assessments, diagnosis, interventions, and treatments are integrated with psychosocial and cultural aspects of care.

Prerequisite: NURS 1255 Medical Surgical Nursing I with a grade of C or better

NURS 1257 Medical Surgical Nursing III 0 or 6 Credit Hours

This course is intended for the second-year nursing student. It includes the study of individual patients with complex health problems utilizing the needs approach. Completion of the first year of nursing is required before the student is permitted to enroll in this course.

Prerequisite: NURS 1256 Medical Surgical Nursing II

NURS 1258 Maternal-Child Nursing I 0 to 3 Credit Hours

This course focuses on pre- and post-natal maternal nursing care, as well as the care of children from infancy to adolescence. There will be discussion of normal and common abnormal, physical and psychological aspects of the maternal-child client and family.

Prerequisite: NURS 1255 Medical Surgical Nursing I with a grade of C or better

NURS 1259 Maternal Child Nursing II 0 or 3 Credit Hours

This course includes principles and techniques pertaining to maternal and child nursing. The nursing process is utilized throughout with focus continuing on the family-centered aspects of nursing care utilizing a holistic, humanistic approach. There will be integration of physio-psychosocial-cultural-nutritional aspects when caring for the family during illness, childbearing, childrearing, or childhood. Evaluation is based on standards of nursing practice.

Prerequisite: NURS 1258 Maternal-Child Nursing I

NURS 1260 Health Assessment 0 to 3 Credit Hours

The theory and practicum of this course covers the nurse's role in performing health assessments across the lifespan. Cognitive and technical skills in history taking, physical examination and recording are included.

Prerequisite: NURS 1255 Medical Surgical Nursing I, graduate nurses, or by permission.

NURS 1261 Medical-Surgical Nursing IV 0 or 5 Credit Hours

This course is a continuation of adult medical-surgical nursing III, focusing upon nursing care for adult clients in acute care settings, who are experiencing complex and life threatening health alterations. This course also covers professional issues related to the role of the registered nurse.

Prerequisite: NURS 1257 Medical Surgical Nursing III with a grade of C or better

NURS 1262 Professional Vocation Relation 1 Credit Hours

This course is designed to help the student identify other important aspects of the nursing profession. The content includes historical, ethical, and legal aspects, information on professional organizations and career opportunities.

Prerequisite: Admission to the Nursing Program.

NURS 1263 LPN IV Therapy 4 Credit Hours

A classroom and clinical course designed to prepare the licensed practical nurse to perform limited and expanded administration of IV therapy under the supervision of a registered professional nurse as outlined by K.A.R. 60-16-102 (b) in the Kansas Nurse Practice Act.

NURS 1264 RN Leadership and Management 3 Credit Hours

This course provides the core foundation in preparing the the student to function as a professional nurse. The student will demonstrate leadership, management, delegation, prioritization, and problem solving skills. The student will be able to describe the client care services of facilities.

NURS 1265 PN Transition into Nursing 1 Credit Hours

This course facilitates the transition from the role of nursing student to Licensed Practical Nurse (LPN). Emphasis is placed on factors that contribute to the LPN scope of practice, initial employment as a nurse, including leadership and management skills; as well as the obligation to obtain and maintain licensure.

NURSING CONTINUING EDUCATION

NRCE 1257 Asthma/Allergy Review 0.5 to 1 Credit Hours

This course is designed to provide practicing clinicians with the skills necessary to perform rapid physical and diagnostic assessments of the respiratory system as it responds to external and internal stimuli, in the clinical setting.

NRCE 1279 Modern Concept of Pain Control 0.5 to 1 Credit Hours

This workshop is designed to better inform, demonstrate, evaluate and discuss the practical application of non-invasive pain control. Special emphasis will be given to post-operative, chronic, acute and athletic related pain. Each person attending will have an opportunity for "hands-on" experimental exercises to facilitate immediate application of learned skills. This course is designed to teach students different methods used in managing pain. The different types of pain and different types of medications, and their effects on the patient will be discussed.

NRCE 1310 Mental Disorders Acr Lifespan 0.5 to 1 Credit Hours

This course focuses on mental health issues from adolescence to adulthood. Topics that will be addressed are current findings and therapies in mental health. It is intended for those working in mental health, as well as professionals in other areas of health care.

NRCE 1311 Medical Errors**0.5 to 1 Credit Hours**

This course focuses on medical errors. Topics that will be addressed are common causes of medical errors and how to prevent the errors from happening in the future.

NRCE 1329 Working with Dementia Patients**0.5 Credit Hours**

This course is designed to provide students with an understanding of the importance of creative arts in the daily routine of the dementia patient. Students will be exposed to the differences in creative arts and activities and how they relate to the client center care model in the long term care facility.

NRCE 1331 Selected Topics in OB Nursing**0.5 to 1 Credit Hours**

Through the sharing of knowledge, experience, and lessons learned, this educational event provides the participant the latest recommendations to guide practice decisions involved in the care of childbearing women.

NRCE 1332 Dealing with Stress**0.5 Credit Hours**

This workshop teaches the principles for living a balanced life, reducing stresses, and adding laughter. This workshop will also provide the important tips, exercises, and activities for building a successful team.

NRCE 1333 Coping with Loss and Grief**0.5 Credit Hours**

This workshop will allow participants to explore loss and grief from a broad perspective, considering the impact of death as well as other losses.

NRCE 1334 Now Showing Times Are Changing**0.5 Credit Hours**

This workshop will allow participants to explore state of civility/incivility in today's nursing environment. This will be followed by suggestions for creating a culture of civility, stress management and self-care.

OFFICE TECHNOLOGY**OFTC 1600 Beginning Keyboarding****1 to 3 Credit Hours**

Designed primarily for students desiring a personal use, keyboarding skill, or as the first course in a sequence leading to a vocational program. Emphasis is on touch techniques utilizing a variety of exercises, drills, and scheduled use of a keyboard lab to develop a firm foundation and reasonable speed on keyboarding.

OFTC 1601 Keyboarding I**2 to 3 Credit Hours**

Designed primarily for students desiring a personal use, keyboarding skill, or as the first course in a sequence leading to a vocational program. Emphasis is on touch keyboarding techniques utilizing a variety of exercises, drills, and scheduled use of the keyboarding lab to develop a firm foundation and reasonable speed on keyboarding.

OFTC 1603 Keyboarding II**2 to 3 Credit Hours**

Keyboarding II is designed and offered to those who have previous knowledge of keyboarding but who need to improve keyboarding skills, increase keyboarding speed, and practice on straight copy skill.

Prerequisite: OFTC 1601 Keyboarding I or basic keyboarding knowledge.

OFTC 1604 Intermediate Keyboarding**1 to 3 Credit Hours**

Emphasis is on touch keyboarding techniques utilizing group and individualized instruction, formatting of person and business correspondence, reports, tabulations and tables, and vertical and horizontal centering. Emphasis is also placed on attainment of reasonable keyboarding speed.

Prerequisite: OFTC 1603 Keyboarding II or advanced keyboarding knowledge.

OFTC 1607 Document Formatting**1 to 3 Credit Hours**

Document Formatting offers students, no matter what field of study, an opportunity to develop skills in proper layout of reports, term papers, memos, letters, letters of application, resumes and other business documents which require uniformity in style. This course is not a writing course but a formatting course.

Prerequisite: Keyboarding proficiency using word processing software on a microcomputer.

OFTC 1621 Business Admin Procedures**3 Credit Hours**

Business Administrative Procedures in a capstone course for Business Administrative Technology students. Upon successful completion of this course, students will be able to understand and apply professional techniques in an administrative setting. Through the use of technology, this course explores a variety of topics including, but not limited to the following: business ethics, telephone techniques, personal development, career building skills, business etiquette, and presentation skills.

Prerequisite: Near completion of Business Administrative Technology Degree

OFTC 1630 Coord Office Train & Conf I**1 to 5 Credit Hours**

This course is for students enrolled in the Cooperative Vocational Office Training Programs. A minimum of 225 clock hours of related work is required each semester in an approved, coordinated training station under the guidance of qualified business personnel and supervision of the office training coordinator. Students keep accurate records of hours worked and duties performed. Conferences for discussion of individual on-the-job situations and Office Education Association Club activities are held.

Prerequisite: Enrollment by consent of instructor.

OFTC 1632 Coord Office Train & Conf II**1 to 5 Credit Hours**

Continuation of Coordinated Office Training and Conference I for second semester students. A minimum of 225 clock hours of related work is required each semester in an approved, coordinated training station under the guidance of qualified business personnel and supervision of the office training coordinator. Students keep accurate records of hours worked and duties performed. Conferences for discussion of individual on-the-job situations and Office Education Association club activities are held.

Prerequisite: OFTC 1630 Coord Office Train & Conf I or BSTC 1630

OFTC 1644 Transcribing Machines**2 to 3 Credit Hours**

Transcribing Machines is designed especially for students to acquire the proficiency in language skills to become a successful communicator in the modern business office. This course integrates the use of cassette transcribing equipment with the computer and the various language-arts skills to provide basic entry-level proficiency in machine transcription. The instructional materials are job-oriented experiences, designed to develop knowledge, skills, and attitudes that will enable the student to become familiar with a variety of various career fields.

Prerequisite: OFTC 1603 Keyboarding II AND OFTC 1696 Word Processing Applications

OFTC 1648 Refresher Keyboarding**1 Credit Hours**

Refresher Keyboarding is designed and offered to those who have previous knowledge of keyboarding but who need practice and a review of the various aspects of the course, e.g. letters, envelopes, tabulations, legal papers, and practice on straight copy skill.

Prerequisite: OFTC 1601 Keyboarding I, one semester or more of high school keyboarding or equivalent.

Course Descriptions

OFTC 1650 Ten Key Mastery

1 Credit Hours

A competency based skill development course in which the student learns to operate the microcomputer ten-key numeric keyboard using the touch-entry method for data entry.

OFTC 1666 Records Management

3 Credit Hours

A study of alphabetic, numeric, subject, and geographic filing methods. Filing equipment, procedures for charge out and follow up, and methods of transfer will be introduced.

OFTC 1696 Word Processing Applications

1 to 3 Credit Hours

A course emphasizing the preparation of documents utilizing automated electronic text-editing word processing equipment and all the language arts skills necessary for accurate copy. Included will be creation, revision, printing, formatting, pagination, rulers, repetitive documents, hyphenation, spelling, error detection, list/merge processing, and related functions.

Prerequisite: Keyboarding proficiency or consent of instructor. These courses use Word 2010.

OFTC 1697 Adv WP Applications & Proced

3 Credit Hours

A course providing reinforcement and refining of automated electronic text-editing word processing equipment manipulation skills. Included will be problem solving applications involving major revision, merging text for multiple-page repetitive documents, tables, math functions, communications systems, related advanced functions, and specialized projects for students in specialized programs.

Prerequisite: OFTC 1696 Word Processing Applications or BSTC 1696

OFTC 2696 Word Processing Applications

1 to 3 Credit Hours

PETROLEUM

PETR 1460 Basic Corrosion/Field Tech

1 to 6 Credit Hours

This course is first in a series of courses designed to teach the basics of corrosion and field technician skills to students/technicians in pipeline and other related industries.

PETR 1500 Intro to Natural Gas Dist/Tran

1 to 2 Credit Hours

This course is intended to prepare employees in the natural gas distribution industry to perform identified job tasks in order to comply with federal regulations and industry standards.

PETR 1501 Int Natural Gas Dist & Trans

1 to 2 Credit Hours

This course is intended to prepare employees in the natural gas distribution industry to perform identified job tasks in order to comply with federal regulations and industry standards.

Prerequisite: PETR 1500 Intro to Natural Gas Dist/Tran

PETR 1505 Fundamentals of Natural Gas

3 Credit Hours

The Fundamentals Course provides the students with a basic understanding of natural gas, basic natural gas chemistry, gas quality, spot sampling, and the gas laws. This course will enable the students to understand the properties of natural gas and their relationship to the gas measurement and accounting process.

PETR 1508 Gas Regulators O & M

2 Credit Hours

The Gas Regulator Operation and Maintenance course enables students to develop a fundamental understanding of the operation of various gas regulators. In addition, students will learn how to perform maintenance on typical gas regulators used by the gas industry.

PETR 1510 Trenching&Excavation Practices

2 Credit Hours

This course will train students to operate excavation equipment (hydraulic excavator) in the field.

Prerequisite: There is a \$350 fee for this course.

PETR 1515 Natural Gas Tech Internship

1 to 4 Credit Hours

This course is designed to provide the student with practical work experience and on the job training within his or her chosen career field. Students will work with professionals in the field, learn the type of dedication necessary and observe working operations on the natural gas industry.

Prerequisite: Students must successfully complete the 16 credit gas certificate courses to qualify for this internship.

PHARMACY

PHRM 1000 Orientation to Pharmacy Tech

3 Credit Hours

This course highlights the practice and role delineation of pharmacists and pharmacy technicians. The course of study also includes educational requirements, issues related to credentialing, and an overview of pharmacy law, pharmacy ethics, pharmacy math, pharmaceutical operations, and pharmacology.

PHRM 1001 Pharmacology

3 Credit Hours

This course provides practical students with information applicable to pharmacology including pharmaceutical nomenclature and classification, mechanisms of drug actions, interactions, indications and contraindications, side effects, and methods of administering therapeutic agents primarily in the nervous, endocrine, skeletal, muscular, cardiovascular, respiratory and gastrointestinal systems. The course of study also includes methods of administering therapeutic agents with an emphasis on the renal, reproductive, vascular, sensory, dermatological, immunological and hematological systems. The benefits and disadvantages of over-the-counter vs. non-prescriptive medication will be addressed.

PHRM 1002 Pharmacy Calculations

3 Credit Hours

This course teaches students the basic terminology, abbreviations, and units needed to perform pharmaceutical calculations. Apothecary, avoirdupois, and metric systems are an essential component of the course. Students will review calculations dealing with ratio and proportion, percentages, ratio strength, reducing and enlarging formulas, and dilution and concentration problems.

PHRM 1003 Pharmacy Operations

3 Credit Hours

This course stimulates daily activities in pharmaceutical practice settings. Topics include: order entry processes, medication distribution systems, inventory, prescription processing, billing, repackaging, floor stock and controlled substance distribution, pharmaceutical computer systems, utilization of drug information resources, and proper communication techniques.

PHRM 1004 Pharmacy Technician Topics

1 Credit Hours

This course is designed to assist the Pharmacy Technician student in preparing himself/herself for the pharmacy technician certification examination. The course content will include standardized test-taking tips, Pharmacy Technician Certification FAQ's, development of pharmacy law, as well as an overview of federal laws affecting pharmacy technicians and ethics in the pharmacy. This review emphasizes major course content areas.

PHRM 1005 Pharmacy Technician Internship 1 to 6 Credit Hours

This internship provides students with the opportunity to apply basic pharmacy technician concepts in a community pharmacy setting with rotation options in the community or at a hospital, medical center, home health care facility and/or drug information center.

PHRM 1006 Advanced Pharmacy Operations 3 Credit Hours

This course demonstrates and simulates daily activities in pharmaceutical practice settings. Topics include: intravenous therapy and non-sterile compounding, sterile technique, drug delivery systems, TPN, weights and measurements. Students discuss compounding facilities and essential compounding equipment, standard packaging forms, interpreting compounding orders and formulations records. Students gain exposure to non-sterile and aseptic compounding techniques in action.

PHILOSOPHY**PHIL 1602 Introduction to Philosophy 3 Credit Hours**

A course designed to introduce the student to various intellectual problems and questions that have confronted mankind since his beginning. Philosophical problems as well as methods of solving these problems will be discussed. This course is designed to help the student understand the integral place philosophy has in institutions of higher learning.

Fulfills: Breadth course AA, AS, AGS, AAS, Humanities Requirement

PHIL 1603 Dir Ind Study/Philosophy 1 to 3 Credit Hours

Directed independent study is a structured learning experience offered as an extension of the regular curriculum. It is intended to allow students to broaden their comprehension of the principles of, and their grasp of competencies associated with academic, nonvocational disciplines. Its purpose is to supplement extant courses with individualized, in-depth learning experiences. Such learning experiences may be undertaken independent of the traditional classroom setting, but will be appropriately directed and supervised by regular instructional staff.

Fulfills: Depth course AA, AS, AGS, AAS, Humanities Requirement

PHIL 1604 Systematic Ethics 3 Credit Hours

This course will examine the historical systems of ethical thought, considering the strengths and weakness of each in order to assist the student to understand the basis of ethical behavior and theories.

Fulfills: Depth course AA, AS, AGS, AAS, Humanities Requirement

PHIL 1605 Reason and Argument 3 Credit Hours

This course is a study of how we can (and do) reason about all aspects of our lives. Students learn how to both create logically consistent arguments and also to break down arguments presented by others so as to judge their logical validity. Special subjects in the course include inductive fallacies, generalization, induction, analogies, and cause/ effect, as well as a study of formal (or propositionally deductive) logic.

Fulfills: Depth course AA, AS, AGS, AAS, Humanities Requirement

PHIL 1607 Systematic Ethics - Honors 3 Credit Hours**PHIL 1612 Academic Integrity 2 Credit Hours**

This course is designed to introduce students to the fundamentals of ethical decision-making, and academic integrity in education and for "professional life." Students will be introduced to major theories of ethics found in the discipline of philosophy and become knowledgeable concerning the development of morality. The course will emphasize the importance of the values of honesty, trust, fairness, respect, and responsibility. Students will develop an ethical framework for making and evaluating ethical choices in everyday life.

PHYSICAL EDUCATION**PHED 1201 Seminar in Sports Medicine 0.5 to 2 Credit Hours**

This course is designed for students actively engaged in athletics or other sports related activities. The purpose of this course is to look at the most prevalent injuries encountered in athletic participation. The prevention, management, and rehabilitation of such injuries will be covered.

PHED 1202 Bowling 1 Credit Hours

This course is designed to give a person the skill, techniques, and the knowledge necessary to enjoy bowling.

Fulfills: PE/Health Course, Physical Education Requirement

PHED 1204 Advanced Bowling 1 Credit Hours

This course is designed to give those who know how to bowl the advance techniques of spare pick-up and strike bowling.

Fulfills: PE/Health Course, Physical Education Requirement

Prerequisite: PHED 1202 Bowling or consent of instructor.

PHED 1205 Athletic Training Practicum 1 Credit Hours

This course is designed to familiarize the student with the skills required of a certified athletic trainer. Emphasis will be placed on the skills necessary for the daily operation of an athletic training facility. Students taking this course will receive hands-on experience in a supervised setting. This includes working in the training room and with the college's intercollegiate athletic teams. **RESTRICTION:** Must be an active Barton County student athletic trainer, or have successfully completed Introduction to Athletic Training.

Prerequisite: Must be an active Barton County student athletic trainer, or have successfully completed Introduction to Athletic Training.

PHED 1206 Golf 1 Credit Hours

This course will enhance the novice with an opportunity to learn the language and strategy of golf and to develop the skill necessary so that it can be enjoyed in leisure time.

Fulfills: PE/Health Course, Physical Education Requirement

PHED 1207 Dir Ind Study/HPER 1 to 3 Credit Hours

Directed independent study is a structured learning experience offered as an extension of the regular curriculum. It is intended to allow students to broaden their comprehension of the principles of, and their grasp of competencies associated with academic, nonvocational disciplines. Its purpose is to supplement extant courses with individualized, in-depth learning experiences. Such learning experiences may be undertaken independent of the traditional classroom setting, but will be appropriately directed and supervised by regular instructional staff.

PHED 1208 Advanced Golf 1 Credit Hours

The advanced golf class is a continuation of the study of golf, with emphasis on theories, techniques, and stroke analysis.

Fulfills: PE/Health Course, Physical Education Requirement

Prerequisite: PHED 1206 Golf or proficiency in basic golf skills

PHED 1209 Intro to Sports Administration 3 Credit Hours

There is definitely a need for managers who possess sound administrative skills in physical education, health, recreation, and athletics. Specifically, the sports administration curriculum is designed to focus on such concepts as business theory, business and finance, marketing and advertising, organizational behavior and corporate fitness programs.

Course Descriptions

PHED 1210 Tennis

1 Credit Hours

This course is designed to teach a person the skill, techniques, and knowledge necessary to enjoy tennis.

Fulfills: PE/Health Course, Physical Education Requirement

PHED 1213 Self Defense

1 Credit Hours

This course teaches self-defense for men and women. Since self defense involves direct contact between two or more individuals, psychological factors play a major role in the teaching of self defense. The basic art of knowing when a danger exists and how to avoid putting oneself in a position of potential danger will be stressed in this course along with the knowledge of escape to safety.

Fulfills: PE/Health Course, Physical Education Requirement

PHED 1214 Tae Kwon Do I

1 Credit Hours

A system of defense and control techniques is based upon well-established principles of hand-to-hand combat. The course involves defensive and aggressive physical maneuvers, armed and unarmed opponents, club maneuvers, development of muscular skill, and prevention of injury to the person.

Fulfills: PE/Health Course, Physical Education Requirement

PHED 1215 Tae Kwon Do II

1 Credit Hours

Continued development of skills and techniques as learned in Karate I. Beginning development of sparring and application of techniques.

Fulfills: PE/Health Course, Physical Education Requirement

Prerequisite: PHED 1214 Tae Kwon Do I

PHED 1217 Fitness Thru Activities

1 Credit Hours

The purpose of this course is to acquaint students with the development of the fitness needs of the body, through total isokinetic-aerobic exercise. The class will give the student a carry-over value of physical education.

Fulfills: PE/Health Course, Physical Education Requirement

Prerequisite: Must be a member of Danceline

PHED 1218 Riflery

1 Credit Hours

This course provides the fundamentals of firearm safety and rifle marksmanship. Twenty-two caliber rifles will be used on the six point indoor range.

Fulfills: PE/Health Course, Physical Education Requirement

PHED 1219 Target Shooting (Rifle-Pistol)

1 Credit Hours

This course provides the fundamentals of firearm safety, along with rifle and pistol marksmanship. Twenty-two caliber rifles and pistols will be used on the six point, indoor range.

Fulfills: PE/Health Course, Physical Education Requirement

PHED 1221 Advanced Karate

1 Credit Hours

Continued development of skills and techniques learned in Karate II. Continued development of sparring and application techniques. Students will work at their own pace toward advanced belt promotions.

Fulfills: PE/Health Course, Physical Education Requirement

Prerequisite: PHED 1215 Tae Kwon Do II

PHED 1222 Beginning Swimming

1 Credit Hours

For non-swimmers or novices. The beginning class stresses breath control, prone float, back float, human stroke, American crawl, treading water, backstroke.

Fulfills: PE/Health Course, Physical Education Requirement

PHED 1224 Intermediate Swimming

1 Credit Hours

Incorporated in intermediate swimming are the following strokes: elementary back stroke, side stroke, back crawl, and breast stroke. **RESTRICTION:** PHED 1220 Beginning Swimming or Proficiency in basic skills.

Fulfills: PE/Health Course, Physical Education Requirement

Prerequisite: PHED 1222 Beginning Swimming or proficiency in basic swimming skills.

PHED 1225 Advanced Swimming

1 Credit Hours

This course is a progression of swimming skills learned in PHED 1222 Beginning Swimming and PHED 1224 Intermediate Swimming.

Fulfills: PE/Health Course, Physical Education Requirement

Prerequisite: PHED 1224 Intermediate Swimming

PHED 1226 Lifeguard Training

1 to 3 Credit Hours

This course provides the necessary minimum knowledge and skills training for a person to qualify as pool lifeguard. This course includes First Aid and CPR for the Professional Rescuer. American Red Cross Certificates will be issued. **RESTRICTION:** Proficiency in basic skills and pre-test.

Fulfills: PE/Health Course, Physical Education Requirement

Prerequisite: Proficiency in basic skills and pre-test.

PHED 1228 Water Safety Instructor

3 Credit Hours

Methods and techniques used to teach progression swimming skills for all levels of swimming. The course provides the opportunity to receive water safety instructor's certificate. **RESTRICTION:** Be at least 17 years old at the start of the instructor course and successfully pass the pre-course written test and skills test.

Fulfills: PE/Health Course, Physical Education Requirement

Prerequisite: Must be at least 16 years old by the end of the course and successfully pass the pre-course written test and skills test.

PHED 1229 Scuba Diving

3 Credit Hours

PADI Open Water Scuba Diving Course is designed to bring the student through a progressive series of knowledge and skill levels the student will need to safely visit and explore the underwater world. **RESTRICTION:** Ability to swim.

Fulfills: PE/Health Course, Physical Education Requirement

Prerequisite: Ability to swim There is a \$150 fee required for this course, payable to the instructor on the first night of class.

PHED 1232 Gymnastics & Tumbling

1 Credit Hours

This course is an activity course designed to acquaint students with the necessary flexibility, control and strength to learn and perform gymnastics and tumbling.

Fulfills: PE/Health Course, Physical Education Requirement

Prerequisite: For cheerleading members only

PHED 1234 Weight Training

1 Credit Hours

Weight Training is designed to acquaint the student with the basic knowledge, understanding and values of resistance exercises in developing general muscular and organic efficiency, as well as conditioning.

Fulfills: PE/Health Course, Physical Education Requirement

PHED 1236 Advanced Weight Training

1 Credit Hours

Advanced weight training is designed to allow the student who has taken beginning weight training to continue the program to a more advanced degree.

Fulfills: PE/Health Course, Physical Education Requirement

Prerequisite: PHED 1234 Weight Training

PHED 1237 Racquetball**1 Credit Hours**

This course is designed to teach the fundamental skills and techniques of racquetball.

PHED 1238 Fundamental-Physical Fitness**1 Credit Hours**

The primary purpose of this course is to acquaint students with basic knowledge, understanding, and values of physical activity as it relates to optimal healthful living. Opportunity will be given for each student to develop an exercise program.

PHED 1239 Modern Dance**1 Credit Hours**

A dance class offering the basic concepts of modern dance. Very basic movement, steps, and combinations will be covered. Class participation is necessary. Through practical study the student should be able to learn basic rhythm and jazz movement for enjoyment and exercise. Modern dance will enable the students to express themselves through the medium of dance.

Fulfills: PE/Health Course, Physical Education Requirement

PHED 1241 Standard First Aid & CPR**1 Credit Hours**

This first aid course is to provide training and teach skills a person needs to act as the first link in the Emergency Medical Services (EMS) System. (Under the Kansas Statute 1910-1S1, sub part K, each employer shall insure that employees are adequately trained in First Aid. This course meets the OSHA requirements.) **RESTRICTION:** Consent of Instructor.

Prerequisite: Enrollment by consent of instructor.

PHED 1242 Intro to Health-PE-Recreation**3 Credit Hours**

This course is a description and interpretation of the field of Health, Physical Education, and Recreation. It will provide a general concept for the professional student. It will provide specific information about the three areas, its professional opportunities, personal rewards and satisfactions, and requirements of a sound program of professional preparation.

PHED 1244 Elementary Health & Phys Educa**3 Credit Hours**

This course is designed for physical educators to enhance their understanding and use of contemporary elementary health and physical education concepts to foster active and healthy lifestyles for all students.

PHED 1246 First Aid Emergency Care**1 to 3 Credit Hours**

This course covers the knowledge and skills required to provide temporary and immediate care to a person who has been injured or who suddenly becomes ill. Successful completion of this course provides for certification in American Red Cross Community First Aid; and Adult, Child, and Infant CPR.

Fulfills: PE/Health Course, Physical Education Requirement

PHED 1252 Theories of Track & Field**2 Credit Hours**

The technical study of the various track and field events. The recognized methods of coaching and training are emphasized.

PHED 1253 Care & Prev of Athletic Injury**3 Credit Hours**

This course is designed to familiarize the student with the most prevalent sports injuries and their effective management. The practical aspects of care, prevention, and reconditioning of athletic injuries will be stressed. The role of the athletic training profession in the sports medicine system will also be discussed.

PHED 1254 Theory of Basketball**2 Credit Hours**

The history and development of the game of basketball and systems used in various sections are stressed through lectures, reports, and discussions. The principles of conditioning and strategy are emphasized.

PHED 1256 Psychology of Sport**2 Credit Hours**

The course provides an opportunity to become acquainted with the many psychological aspects that coaches, athletes, and spectators face in their involvement with sports. Emphasis will be given on the psychological and social dimensions of coaching, practice and competitive preparation, and psychological traits common to specific sports and athlete personality.

PHED 1257 Childrens Play & Recreation**2 Credit Hours**

Designed to cover the meaning of play in the life of the growing child, the play periods of childhood, the social and educational values in supervised play, and the opportunity of the parent or teacher for developing ideals of life during playtime.

PHED 1258 Rules & Officiating**1 to 3 Credit Hours**

This course is designed to acquaint students with a thorough knowledge of the rules, mechanics, and responsibilities of officiating football, volleyball, and basketball.

PHED 1261 Beginning Ballet**1 Credit Hours**

There is a need to preserve arts in the rural communities. The study of ballet is one way to do this. A class in ballet will give the student excellent physical training, a sense of control of the body, better concentration ability, and an appreciation of the art of ballet.

PHED 1262 Recreational Leadership**3 Credit Hours**

An application of leadership principles to the unique problems encountered by physical education and recreational personnel. The course includes the methods and materials in recreation leadership.

PHED 1263 Recreation Fieldwork**3 Credit Hours**

A supervised work experience with cooperating community agencies. Students engage in practical application of theory and on-the-job experience with intramural sports, scouts, recreation commission, etc.

RESTRICTION: Consent of Instructor.

Prerequisite: Enrollment by consent of instructor.

PHED 1270 Intro to Exercise Science**1 to 3 Credit Hours**

This course is designed to provide a student with information on the basic physiological functions specific to exercise science and the effects of physical exercise on the human body.

PHED 1271 Figure Improvement I**1 Credit Hours**

This course is designed for people who want to make exercise a significant factor in maintaining a physically fit body. Exercising is emphasized as a regular everyday routine. Diets, eating habits and behavioral techniques are discussed by the class as a group. Individual goals are set, and progress in achieving those goals is monitored during the semester.

Fulfills: PE/Health Course, Physical Education Requirement

PHED 1272 Figure Improvement II**1 Credit Hours**

This course is an extension of Figure Improvement I. The class is designed for people who want to make exercise a significant factor in maintaining a physically fit body. Exercising is emphasized as a regular everyday routine. Diets, eating habits, and behavioral techniques are discussed by the class as a group. Individual goals are set and progress in achieving those goals are monitored during the semester.

Fulfills: PE/Health Course, Physical Education Requirement

Prerequisite: PHED 1271 Figure Improvement I

Course Descriptions

PHED 1273 Aerobic Dance I

1 Credit Hours

This course is designed to offer a complete and effective conditioning program of physical fitness. It conditions figure muscles by trimming, firming, and shaping. It conditions heart, lungs, and blood vessels by demanding that this internal life-supporting system be strengthened through healthy use.

PHED 1274 Aerobic Dance II

1 Credit Hours

The course will consist of exercises such as dancing, brisk walking, jogging, running, swimming, and rope-skipping. These exercises cause the body to demand more oxygen over an extended period of time. Such activities, carried on at a controlled pace for each individual, will enable that person to train the cardiovascular system, so that it becomes more efficient by strengthening the heart, lungs, and blood vessels.

Prerequisite: PHED 1273 Aerobic Dance I

PHED 1276 Aqua Aerobics

1 Credit Hours

This course is designed to offer a total body conditioning program for a firm, trim figure and a health cardiovascular system. It incorporates the natural resistance of water to effectively trim and tone the entire body, especially thighs, hips, mid-section, upper body and arms.

Fulfills: PE/Health Course, Physical Education Requirement

PHED 1280 Varsity Ath-Basketball (Men)

1 Credit Hours

The purpose of this course is to provide student athletes the opportunity to participate in intercollegiate athletics. **RESTRICTION:** Concurrent participation in that sport.

Fulfills: PE/Health Course, Physical Education Requirement

PHED 1281 Varsity Ath-Basketball (Women)

1 Credit Hours

The purpose of this course is to provide student athletes the opportunity to participate in intercollegiate athletics. **RESTRICTION:** Concurrent participation in that sport.

Fulfills: PE/Health Course, Physical Education Requirement

PHED 1282 Varsity Athletics-Baseball

1 Credit Hours

The purpose of this course is to provide student athletes the opportunity to participate in intercollegiate athletics. **RESTRICTION:** Concurrent participation in that sport.

Fulfills: PE/Health Course, Physical Education Requirement

PHED 1283 Varsity Athletics-Softball

1 Credit Hours

The purpose of this course is to provide student athletes the opportunity to participate in intercollegiate athletics. **RESTRICTION:** Concurrent participation in that sport.

Fulfills: PE/Health Course, Physical Education Requirement

PHED 1284 Varsity Ath-Cross Country

1 Credit Hours

The purpose of this course is to provide student athletes the opportunity to participate in intercollegiate athletics. **RESTRICTION:** Concurrent participation in that sport.

Fulfills: PE/Health Course, Physical Education Requirement

PHED 1285 Varsity Athletic-Golf (Women)

1 Credit Hours

Credit is received for participation in intercollegiate athletics. Golf is a lifetime sport which can be used as recreation or a profession.

PHED 1286 Varsity Athletic-Golf (Men)

1 Credit Hours

Credit is received for participation in intercollegiate athletics.

Fulfills: PE/Health Course, Physical Education Requirement

PHED 1287 Varsity Tennis (Men)

1 Credit Hours

The purpose of this course is to provide student athletes the opportunity to participate in intercollegiate athletics. **RESTRICTION:** Concurrent participation in that sport.

Fulfills: PE/Health Course, Physical Education Requirement

PHED 1288 Varsity Tennis (Women)

1 Credit Hours

The purpose of this course is to provide student athletes the opportunity to participate in intercollegiate athletics. **RESTRICTION:** Concurrent participation in that sport.

Fulfills: PE/Health Course, Physical Education Requirement

PHED 1290 Varsity Athletics-Track (Men)

1 Credit Hours

The purpose of this course is to provide student athletes the opportunity to participate in intercollegiate athletics. **RESTRICTION:** Concurrent participation in that sport.

Fulfills: PE/Health Course, Physical Education Requirement

PHED 1292 Varsity Athletic Track (Women)

1 Credit Hours

The purpose of this course is to provide student athletes the opportunity to participate in intercollegiate athletics. **RESTRICTION:** Concurrent participation in that sport.

Fulfills: PE/Health Course, Physical Education Requirement

PHED 1293 Varsity Athletics-Volleyball

1 Credit Hours

The purpose of this course is to provide student athletes the opportunity to participate in intercollegiate athletics. **RESTRICTION:** Concurrent participation in that sport.

Fulfills: PE/Health Course, Physical Education Requirement

PHED 1294 Varsity Athletics-Cheerleading

1 Credit Hours

The purpose of this course is to provide student athletes the opportunity to participate in intercollegiate athletics. **RESTRICTION:** Concurrent participation in that sport.

Fulfills: PE/Health Course, Physical Education Requirement

PHED 1295 Advanced Aqua Aerobics

1 Credit Hours

This course is designed to offer a complete and effective conditioning program of physical fitness. It conditions your heart, lungs, and blood vessels by demanding that this internal life supporting system be strengthened through healthy use. It incorporates the natural resistance of water to effectively trim and tone the entire body, especially thighs, hips, mid-section, upper body, and arms.

Fulfills: PE/Health Course, Physical Education Requirement

Prerequisite: PHED 1276 Aqua Aerobics

PHED 1296 Varsity Athletics Soccer (Men)

1 Credit Hours

Credit is received for participation in intercollegiate athletics. **RESTRICTION:** Concurrent participation in that sport.

Fulfills: PE/Health Course, Physical Education Requirement

PHED 1297 Varsity Athletic Soccer(Women)

1 Credit Hours

Credit is received for participation in intercollegiate athletics. **RESTRICTION:** Concurrent participation in that sport.

Fulfills: PE/Health Course, Physical Education Requirement

PHED 1301 Beginning Modern Dance

1 Credit Hours

A dance class offering the basic concept of beginning modern dance. Very basic movement, steps, combinations, and routines will be covered. Through practical study the student should be able to learn basic rhythm and modern dance routines for enjoyment and exercise.

Fulfills: PE/Health Course, Physical Education Requirement

Prerequisite: Must be a member of Danceline

PHED 1308 Intro to Athletic Training 1 to 3 Credit Hours

This course is designed to introduce the student to the profession of athletic training. Upon the completion of this course, the student will have basic understanding of the principles, practices, and techniques used in the prevention, management, and rehabilitation of athletic injuries.

RESTRICTION: Must be a student athletic trainer or consent of instructor.

Prerequisite: Must be a student athletic trainer or consent of instructor.

PHED 1309 Observation in Physical Educ 2 Credit Hours

This course is designed to provide the student with an opportunity to observe experienced physical educators/ health educators in action at the elementary and secondary levels.

PHED 1313 Rhythm I 1 Credit Hours

The course is open to students selected by audition at the beginning of the year, or recruited. Emphasis on fundamentals of precision dance and drill are basic to the course. The group will perform at basketball games, community and professional functions. Credit is received for participation in dance line. **RESTRICTION:** Must be a member of Dance Line.

Fulfills: PE/Health Course, Physical Education Requirement

Prerequisite: Must be a member of Danceline.

PHED 1314 Rhythm II 1 Credit Hours

The course is open to students that are selected by audition at the beginning of the year, or recruited. The course is a continuation of the previous course. Emphasis on fundamentals of precision dance and drill are basic to the course. The group will perform at basketball games, community and professional functions. Credit is received for participation in dance line.

Fulfills: PE/Health Course, Physical Education Requirement

Prerequisite: PHED 1313 Rhythm I

PHED 1315 Rhythm III 1 Credit Hours

The course is a continuation of the previous course. Credit is received for participation in dance line.

Fulfills: PE/Health Course, Physical Education Requirement

Prerequisite: PHED 1314 Rhythm II

PHED 1316 Rhythm IV 1 Credit Hours

The course is a continuation of the previous course. Credit is received for participation in dance line.

Fulfills: PE/Health Course, Physical Education Requirement

Prerequisite: PHED 1315 Rhythm III

PHED 1319 YogaFit 1 Credit Hours

YogaFit® is designed to improve the health, performance, and mental acuity of athletes or individuals interested in improving their level of fitness. Based on the ancient fitness science of hatha yoga, it blends balance, strength, flexibility and power in a fitness format. YogaFit® overcomes the mystery of yoga by delivering a practical, user-friendly style, which is accessible, understandable, and doable by individuals at any level of fitness. The YogaFit® style reduces the risk of injury and augments recovery for ailments including stress, lower back pain and tension.

Fulfills: PE/Health Course, Physical Education Requirement

PHED 1321 Physical Fitness I 1 Credit Hours

In this course students will evaluate and develop their muscle tone, cardiovascular endurance, flexibility, and body composition through supervised circuit training and other exercise activities. Through this course, students will learn the value and benefits of a lifetime physical fitness program.

Fulfills: PE/Health Course, Physical Education Requirement

PHED 1322 Physical Fitness II 1 Credit Hours

This course is a continuation of Physical Fitness I. In this course students will evaluate and further develop their muscle tone, cardiovascular endurance, flexibility, and body composition through supervised circuit training and other exercise activities. Through this course, students will learn additional values and benefits of a lifetime physical fitness program.

Fulfills: PE/Health Course, Physical Education Requirement

PHED 1325 Coaching Advanced Soccer 3 Credit Hours

The primary objective of this course is to provide all coaches, from the beginner to the most advanced, with up to date theoretical and practical knowledge. This course will prepare coaches working with youth soccer players U10-U13 and above by expanding their knowledge and understanding of the technical and tactical demands of the game and the developmental process necessary for players of these ages. This course will provide an understanding of practical coaching methodology and the framework necessary to prepare players and a team for competition. This course will prepare coaches for whom this represents their final coaching education as well as those who plan to pursue an advanced U.S. Soccer Federation National Coaching License.

PHED 1326 Concepts of Personal Training 3 Credit Hours

This course is designed to prepare and qualify students to work as personal trainers. This professional development course not only prepares students for successful attainment of the NCSF-CPT credential, but also provides them with the skill set for capable job performance in the expanding personal training market.

Fulfills: PE/Health Course, Physical Education Requirement

PHED 1327 Zumba 1 Credit Hours

Zumba Fitness is a Latin-inspired dance fitness class which incorporates Latin, International and popular music and dance movements to create a dynamic, effective fitness system. Traditional dances such as Salsa, Cumbia, Merengue and African are mixed with contemporary Hip-Hop, Jazz, Pop as well as fitness moves to achieve increased physical fitness.

Fulfills: PE/Health Course, Physical Education Requirement

PHED 1328 Abdominal Core Fitness 1 Credit Hours

Core class is an athletic workout using the principles of sports stretch, strength training, conditioning and dynamic movement, combined with light hand weights. It includes modifications for the group exercise environment, yet offers exercise progressions to challenge all levels of participants. Core class will increase the participant's strength, flexibility, and balance and improve one's overall fitness level.

Fulfills: PE/Health Course, Physical Education Requirement

PHED 2246 First Aid Emergency Care 1 to 3 Credit Hours

This course covers the knowledge and skills required to provide temporary and immediate care to a person who has been injured or who suddenly becomes ill. Successful completion of this course provides for certification in American Red Cross Community First Aid; and Adult, Child, and Infant CPR.

Course Descriptions

PHYSICAL SCIENCE

PHSC 1400 Physical Science **0 or 5 Credit Hours**

Physical Science is designed primarily for students other than those planning on mathematics or science majors. It is a lab course concerned with the concepts of matter and energy involved in the fields of physics, chemistry, astronomy, and earth science as well as introduction into the applied mathematics pertaining to each of these fields.

Fulfills: Laboratory Course, Natural Science Requirement

Prerequisite: MATH 1821 Basic Algebra with a grade of C or better (or higher level math course) OR having passed Module 6 in College Preparatory Mathematics OR appropriate math placement score.

PHSC 1402 Introduction to Geology **3 or 5 Credit Hours**

The class provides an introduction to the principles of earth science and will include a study of the information, occurrence, and structures of minerals and rocks, the action of streams, oceans, glaciers, and other agents in the formation and modification of the landscape.

Fulfills: Laboratory Course, Natural Science Requirement, Non-Laboratory Course

PHSC 1403 Intro to Geology Laboratory **2 Credit Hours**

This course is designed for students requiring a laboratory course in geology. It is concerned with the practical application of the principles of geology.

Fulfills: Laboratory Course, Natural Science Requirement

Prerequisite: PHSC 1402 Introduction to Geology or concurrent enrollment in PHSC 1402 Introduction to Geology

PHSC 1404 Physical Geography **3 Credit Hours**

A study of the geographic factors of our physical environments, including climate, terrain, soils, landforms, the seas, economic sources, cartographic elements and an introduction to regional studies.

Fulfills: Natural Science Requirement, Non-Laboratory Course

PHSC 1408 Astronomy **3 Credit Hours**

This is a general Astronomy course designed to acquaint the student with the heavenly bodies and the seasonal migration throughout the sky. Emphasis will be placed on the methods and tools used in exploring the solar system and the local galaxy. Theories about the rest of the universe will be included. An important part of the course will be time spent observing using both naked eye and telescopes, and time spent in the planetarium.

Fulfills: Natural Science Requirement, Non-Laboratory Course

PHSC 2408 Astronomy **1 to 3 Credit Hours**

This is a general Astronomy course designed to acquaint the student with the heavenly bodies and the seasonal migration throughout the sky. Emphasis will be placed on the methods and tools used in exploring the solar system and the local galaxy. Theories about the rest of the universe will be included. An important part of the course will be time spent observing using both naked eye and telescopes, and time spent in the planetarium.

PHSC 2410 Conservation-Natural Resources **1 to 3 Credit Hours**

A general survey of the board categories of the natural wealth of the world upon which human well-being depends and a summary of present and future supplies will be emphasized. A development of concepts rather than the recitation of facts would serve as the basic idea of this class.

PHYSICS

PHYS 1600 Physics I **0 or 5 Credit Hours**

The course will cover the basic principles of mechanics, heat and sound. Students enrolled in Physics are required to enroll in the accompanying lab. **RESTRICTION:** 1830 Trigonometry or high school trigonometry.

Fulfills: Laboratory Course, Natural Science Requirement

Prerequisite: MATH 1830 Trigonometry or high school Trigonometry.

PHYS 1602 Physics II **0 or 5 Credit Hours**

The course will cover the basic principles of electricity, magnetism, light, and modern physics. Students enrolled in Physics II are required to enroll in the accompanying lab.

Fulfills: Laboratory Course, Natural Science Requirement

Prerequisite: PHYS 1600 Physics I with a grade of C or better

PHYS 1604 Engineering Physics I **0 or 5 Credit Hours**

This course is designed specifically for the student majoring in physics, chemistry, or engineering. It includes the study of mechanics, physical properties of matter, heat and thermodynamics and uses the application of calculus to the problem-solving techniques of physics. Students must also enroll in Engineering Physics I Lab.

Fulfills: Laboratory Course, Natural Science Requirement

Prerequisite: MATH 1832 Analytic Geometry-Calculus I or concurrent enrollment in MATH 1832 Analytic Geometry-Calculus I

PHYS 1606 Engineering Physics II **0 or 5 Credit Hours**

This course is a continuation of Engineering Physics I. It includes the study of electricity, magnetism, wave motion optics, and modern physics with calculus applications. Students must also enroll in Engineering Physics II Lab.

Fulfills: Laboratory Course, Natural Science Requirement

Prerequisite: PHYS 1604 Engineering Physics I with a grade of C or better

POLITICAL SCIENCE

POLS 1800 Government of United States **3 Credit Hours**

A study of the constitution of the United States and the organizations, powers, and functions of the national government. In addition, current problems and policy and the role of the individual will be studied.

Fulfills: Breadth course AA, AS, AGS,AAS, Social Science Requirement

POLS 1801 Intro to Political Science **3 Credit Hours**

This course is designed to elevate the political awareness of the student, as well as teach the inner and outer workings of all political systems at all levels.

Fulfills: Breadth course AA, AS, AGS,AAS, Social Science Requirement

POLS 1804 International Relations **3 Credit Hours**

A study of the fundamentals of the nation-state system; sovereignty, nationalism, diplomacy, collective security, the balance of power, and international organizations.

Fulfills: Breadth course AA, AS, AGS,AAS, Social Science Requirement

POLS 1805 Dir Ind Study/Government **1 to 3 Credit Hours**

Directed independent study is a structured learning experience offered as an extension of the regular curriculum. It is intended to allow students to broaden their comprehension of the principles of, and their grasp of competencies associated with academic, nonvocational disciplines. Its purpose is to supplement extant courses with individualized, in-depth learning experiences. Such learning experiences may be undertaken independent of the traditional classroom setting, but will be appropriately directed and supervised by regular instructional staff.

Fulfills: Depth course AA, AS, AGS, AAS, Social Science Requirement

POLS 1810 The Middle East in Modern Time 1 to 3 Credit Hours

This course will explore the politics of the Near East region, including the historic, religious, ideological, and cultural forces that share the government policies, international relations, social movements, and military conflicts of the region. Special emphasis will be placed on the Israel-Palestinian conflict, impact of the Gulf War, and current day Iraq.

POLS 1815 Intro to UN & InternationalOrg 3 Credit Hours

This course will explore various theoretical perspectives on international relations, and on the role of international organizations more specifically. The course focus will center on examining the historical evolution of the United Nations and its precursors. We will discuss the UN's structure and governance role in international peace and security, terrorism, human rights, development, and the environment. We will also explore the weaknesses and strengths of the UN and its agencies along with other international organizations and the tension faced by globalization, supranational governance, and national sovereignty.

POLS 1828 State & Local Government 3 Credit Hours

A study of the principles of organization and practical operations of state, county, and city governments in the United States. Special emphasis will be given to current problems facing state and local governments.

Fulfills: Breadth course AA, AS, AGS, AAS, Social Science Requirement

POLS 2802 New Politics 1 to 3 Credit Hours

An investigation into the newly forming national political coalitions, their pattern of development and causes. Also, the content, effect, and technique of the new political communication channels will be studied.

PSYCHOLOGY**PSYC 1000 General Psychology 3 Credit Hours**

This course provides a broad overview of the theories and research findings associated with the scientific study of behavior and mental processes. Topics covered may include research techniques, the biological influences on behavior, development, sensation and perception, motivation and emotion, intelligence, consciousness, learning, memory, the role of psychological factors in health, personality, mental disorders and their treatment, and social influences on behavior.

Fulfills: Breadth course AA, AS, AGS, AAS, Social Science Requirement

PSYC 1001 General Psychology-Honors 3 Credit Hours

This survey course focuses on the science of behavior. Topics covered include (but are not limited to) human development, theories of learning, theories of personality, motivation, symptoms, etiology, and treatment of psychopathology, and the function and organization of the nervous system of man.

PSYC 1006 Abnormal Psychology 3 Credit Hours

This course will examine the criteria for normal and abnormal behavior by exploring the dynamics of their occurrence as well as their etiology, symptoms, diagnosis, and treatment. Topics covered include anxiety disorders, mood disorders, sexual dysfunctions and deviations, organic brain syndromes, and schizophrenia.

Fulfills: Depth course AA, AS, AGS, AAS, Social Science Requirement

Prerequisite: PSYC 1000 General Psychology with a grade of C or better

PSYC 1007 Abnormal Psychology - Honors 3 Credit Hours**PSYC 1012 Introduction to Counseling 3 Credit Hours**

A study of counseling theories and strategies will be used as a basis for developing basic helping skills and effective listening techniques. This course is suggested for those interested in helping professions.

PSYC 1014 Developmental Psychology 1 to 3 Credit Hours

This course examines the theories, methodologies and data pertinent to the study of the individual across the life-span. Emphasis will focus on both the continuity and changes in behavior due to hereditary and environmental influences within infancy, early childhood, adolescence, adulthood, and late adulthood. Topics will include behavioral genetics, prenatal influences, physical maturation and aging, mental abilities, gender and sexuality, moral development, family and peer interactions, developmental disorders, as well as death and dying.

Fulfills: Depth course AA, AS, AGS, AAS, Social Science Requirement

Prerequisite: PSYC 1000 General Psychology with a grade of C or better OR College level assessment scores in Reading.

PSYC 1016 Social Psychology 3 Credit Hours

This course will be concerned with the forces on individual and group behavior in social situations. Topics will include the creation of attitudes and prejudice, persuasion and conformity, obedience to authority, group decision making, theories of aggressions and altruism, social cognition and perception and interpersonal attraction.

Prerequisite: PSYC 1000 General Psychology with a grade of C or better

PSYC 1018 Group Dynamics I 3 Credit Hours

Theoretical interpretations of how and why groups and individuals interact. Instructional goals are to better acquaint the student with himself and others; to tune into his own feelings and attitudes and talk up so that optimal interpersonal communication and adequate ego-strength may be developed.

Fulfills: Depth course AA, AS, AGS, AAS, Social Science Requirement

PSYC 1026 Psychology Grief & Separation 1 Credit Hours

An appropriate course for the student pursuing skills in any of the helping professions. It is also appropriate for the individual who is simply interested in learning more about the process of grief for his or her own benefit.

Fulfills: Depth course AA, AS, AGS, AAS, Social Science Requirement

PSYC 1027 Coping with Stress 1 to 3 Credit Hours

Coping with Stress is designed to give the student a basic knowledge of different stress management techniques and to learn how to apply different stress management techniques to one's own life.

Fulfills: Depth course AA, AS, AGS, AAS, Social Science Requirement

PSYC 1033 Psychology of Serial Killers 3 Credit Hours

This course critically examines serial killers from the psychological and sociological perspectives. Students will explore myths and facts associated with the most popular case examples. Additionally, the course will explore the psychopathology and development of serial killers as well as their portrayal in mass media and the effect on culture and society.

PSYC 1034 Theories of Personality 3 Credit Hours

This class has as its objective, understanding representative schools of personality theory. Topics included in this class are Freud's classical psychoanalytic theory, Jung's analytic theory, other psychodynamic theories, existential theory, behaviorism, and humanism.

Fulfills: Depth course AA, AS, AGS, AAS, Social Science Requirement

Prerequisite: PSYC 1000 General Psychology with a grade of C or better

Course Descriptions

PSYC 1045 Dir Ind Study/Psychology **1 to 3 Credit Hours**

Directed independent study is a structured learning experience offered as an extension of the regular curriculum. It is intended to allow students to broaden their comprehension of the principles of, and their grasp of competencies associated with academic, nonvocational disciplines. Its purpose is to supplement extant courses with individualized, in-depth learning experiences. Such learning experiences may be undertaken independent of the traditional classroom setting, but will be appropriately directed and supervised by regular instructional staff.

Fulfills: Depth course AA, AS, AGS, AAS, Social Science Requirement

PSYC 1057 Sports Psychology **3 Credit Hours**

This course examines psychology in the context of sports and athletics. Topics include leadership, motivational theories, goal-setting, stress, social facilitation, and personality. An understanding of sport and psychology will also draw from other endeavors and information provided that will be relevant for many areas and context.

PSYC 1130 Death & Dying **1 to 3 Credit Hours**

This course will provide a broad overview of the theories and data concerning death, grief, and bereavement throughout the life-span. Topics will include demographic trends in death rates, societal views of death and dying, cultural and religious influences on dying, age differences in death experiences and coping, health care practices, and legal issues concerning death.

Fulfills: Depth course AA, AS, AGS, AAS, Social Science Requirement

PSYC 2018 Group Dynamics I **1 to 3 Credit Hours**

Theoretical interpretations of how and why groups and individuals interact. Instructional goals are to better acquaint the student with himself and others; to tune into his own feelings and attitudes and talk up so that optimal interpersonal communication and adequate ego-strength may be developed.

PSYC 2027 Coping with Stress **1 to 3 Credit Hours**

Coping with stress is designed to give students a basic knowledge of different stress management techniques and to learn how to apply different stress management techniques to one's own life.

READING

READ 1105 Fundamental Reading Skills **3 Credit Hours**

This course provides a means for students to master reading skills for college work.

Fulfills: Developmental Course

Prerequisite: concurrent enrollment in ENGL 1201

READ 1108 Basic Reading **1 to 3 Credit Hours**

This course provides a means for students to master reading skills for college work.

Fulfills: Developmental Course

READ 1109 Intermediate Reading **3 Credit Hours**

This course is necessary to the freshman students who often lack the basic study and reading skills to survive college courses. The course is designed to promote the development of reading speed and comprehension through controlled group activity. It aids in the development of vocabulary, spelling, and study skills.

Fulfills: Developmental Course

Prerequisite: READ 1108 Basic Reading with a grade of C or better or ASSET Reading Skills score of at least 35 or ACT Reading score of at least 14 or Accuplacer Reading Skills score of at least 54 or recommendation of Reading instructor based on class administered standardized reading test

READ 1111 College Reading Skills **3 Credit Hours**

A brief course consisting of success strategies designed to improve the proficiency of any college student. The elective focuses on reading, interpreting, writing, and listening techniques.

Prerequisite: READ 1109 Intermediate Reading with a grade of C or better or ASSET Reading Skills score of at least 40 or ACT Reading score of at least 18 or Accuplacer Reading Skills score of at least 69

RELIGION

RELI 1301 New Testament Lit:Gospels **3 Credit Hours**

A course designed to introduce the student to the English translations of the four gospels of the New Testament text: Matthew, Mark, Luke, and John. The text of the gospels will be studied almost exclusively rather than emphasizing a textbook about them. Each student will complete an individual exegesis of specific, difficult passages found in the gospels. Several New Testament commentaries will be studied to complete this assignment.

Fulfills: Depth course AA, AS, AGS, AAS, Humanities Requirement

RELI 1302 Dir Ind Study/Religion **1 to 3 Credit Hours**

Directed independent study is a structured learning experience offered as an extension of the regular curriculum. It is intended to allow students to broaden their comprehension of the principles of, and their grasp of competencies associated with academic, nonvocational disciplines. Its purpose is to supplement extant courses with individualized, in-depth learning experiences. Such learning experiences may be undertaken independent of the traditional classroom setting, but will be appropriately directed and supervised by regular instructional staff.

Fulfills: Depth course AA, AS, AGS, AAS, Humanities Requirement

RELI 1303 New Test Lit:Acts & Epistles **3 Credit Hours**

A course designed to introduce the student to the English translations of the Acts of the Apostles and some of the epistles of the New Testament literature. The texts of these New Testament books will be studied almost exclusively rather than emphasizing a textbook about them. The early history of the New Testament church will be studied along with principles and procedures of ethical conduct taught therein.

Fulfills: Depth course AA, AS, AGS, AAS, Humanities Requirement

RELI 1304 New Test Lit:Gospels - Honors **3 Credit Hours**

RELI 1305 Old Testament Lit:Pentateuch **3 Credit Hours**

A course designed to introduce the student to the English translations of the first five books of the Old Testament. These books will be studied almost exclusively rather than studying a textbook about them. The biblical account of the early history of man's origins will be studied along with principles of ethic conduct taught therein. Doctrinal and theological issues are purposely avoided in order that we might not be side-tracked from the literature of the Pentateuch.

Fulfills: Depth course AA, AS, AGS, AAS, Humanities Requirement

RELI 1307 Old Test Lit:Wisdom Books **3 Credit Hours**

A course designed to introduce the student to the English translations of the so-called wisdom books of the Old Testament Canon: Proverbs, Job, Ecclesiastes. Other books that may be studied in this course are Psalms, Esther, Lamentations and Song of Solomon, depending on the needs and interests of the instructor and students. The text of these books will be studied almost exclusively rather than emphasizing a textbook about them.

Fulfills: Depth course AA, AS, AGS, AAS, Humanities Requirement

RELI 1309 Old Test Lit:Prophets**3 Credit Hours**

A course designed to introduce the student to the English translations of the Old Testament major and minor prophets. These books will be studied almost exclusively rather than studying a textbook about them.

Fulfills: Depth course AA, AS, AGS, AAS, Humanities Requirement

RELI 1311 World Religions**3 Credit Hours**

A survey of the major religious systems of the world, including Hinduism, Buddhism, Confucianism, Taoism, Judaism, Christianity and Islam. Objectivity and impartiality are important characteristics of our study. We seek to understand the world's religions, not evaluate their comparative merits.

Fulfills: Breadth course AA, AS, AGS,AAS, Humanities Requirement

RELI 2301 New Testament Lit:Gospels**1 to 3 Credit Hours**

A course designed to introduce the student to the English translations of the four gospels of the New Testament text: Mathew, Mark, Luke, and John. The text of the gospels will be studied almost exclusively rather than emphasizing a textbook about them. Each student will complete an individual exegesis of specific, difficult passages found in the gospels. Several New Testament commentaries will be studied to complete this assignment.

SOCIOLOGY**SOCI 1100 Introduction to Sociology****3 Credit Hours**

This course is the study of human social environments. Particular emphasis is given to the origin and nature of society and its institutions, general principles of sociology, and the influence of culture on the individual. Applications of these principles will be made to current social problems.

Fulfills: Breadth course AA, AS, AGS,AAS, Social Science Requirement

SOCI 1101 Dir Ind Study/Sociology**1 to 3 Credit Hours**

Directed independent study is a structured learning experience offered as an extension of the regular curriculum. It is intended to allow students to broaden their comprehension of the principles of, and their grasp of competencies associated with academic, nonvocational disciplines. Its purpose is to supplement extant courses with individualized, in-depth learning experiences. Such learning experiences may be undertaken independent of the traditional classroom setting, but will be appropriately directed and supervised by regular instructional staff.

Fulfills: Depth course AA, AS, AGS, AAS, Social Science Requirement

SOCI 1102 Marriage & Family**3 Credit Hours**

A survey of sociological research methods and theories used in the study of marriages/families. The affects of social change, gender theory, and contemporary global problems facing marriages/families will be considered.

Fulfills: Depth course AA, AS, AGS, AAS, Social Science Requirement

SOCI 1103 Marriage & Family - Honors**3 Credit Hours****SOCI 1104 Contemporary Social Problems****1 to 3 Credit Hours**

This course provides a framework for identifying, exploring, and evaluating social problems today. Students are encouraged to distinguish knowledge from values in their own attitudes about what constitutes a "social problem" and in their assessment of current programs aimed at alleviation of social problems.

Fulfills: Depth course AA, AS, AGS, AAS, Social Science Requirement

SOCI 1106 Intro to Social Work**3 Credit Hours**

This course is designed to serve as an introduction to the practice of social work and the field of social services. Emphasis is placed on the delivery of social services, the development and future of social work in American society. The student will be exposed to current endeavors in the field, agencies offering social welfare services, and critical issues facing social work in contemporary society.

Prerequisite: SOCI 1100 Introduction to Sociology

SOCI 1107 Practicum in Community Service**3 Credit Hours**

This course is designed to provide the student with practical work experience and on-the-job training within their chosen career field.

SOCI 1110 Juvenile Delinquency/Justice**3 Credit Hours**

Examines the historical precedents and philosophical reasons for treating juveniles differently from adults. Reviews empirical evidence about child development that can illuminate the reasons for their special status within the system. It will study the major theories that have been proposed as explanations of delinquent behavior. The course will also provide a detailed overview of the juvenile justice system, from its beginnings to the current state of the institution.

Fulfills: Depth course AA, AS, AGS, AAS, Social Science Requirement

Prerequisite: SOCI 1100 Introduction to Sociology with a grade of C or better or CRIM 1600 Intro to Criminal Justice with a grade of C or better or consent of instructor.

SOCI 1114 Human Sexuality**3 Credit Hours**

This course is designed as a comprehensive overview of the entire field of sexuality and uses an interdisciplinary approach, which deals with the biological, psychological, and sociological aspects of sexuality. There is emphasis placed on factual dimensions as well as religious, moral, and ethical values and the social mores of the various cultural groups.

Fulfills: Depth course AA, AS, AGS, AAS, Social Science Requirement

Prerequisite: SOCI 1100 Introduction to Sociology or PSYC 1000 General Psychology

SOCI 1128 Leadership Development**1 to 3 Credit Hours**

To increase students awareness, self-confidence, and ability to impact a community through service, goal setting skills, communication skills, diversity, team building skills, and effective leadership in life.

SOCI 1129 Cross Cultural Awareness**3 Credit Hours**

The purpose of the class is to assist students in developing an awareness of cultural background, attitudes, and experiences. The class is also intended to create an awareness of one's own individual respect for human dignity and individual rights both for oneself and others in our increasingly pluralistic society.

Fulfills: Breadth course AA, AS, AGS,AAS, Social Science Requirement

SOCI 1138 Women in Society**3 Credit Hours**

The course examines ideas and concerns of different thinkers, academics, activists, and social critics that are expanding the boundaries of gender theory. Gender issues from the past, present, and future focusing on women, will be incorporated into an interdisciplinary approach with emphasis on the social sciences.

SOCI 1145 Parenting**3 Credit Hours**

An examination of parenting lifestyles and values and their relationship to available alternatives for guiding children's behavior. The course will provide purposeful training in preparation for the responsibilities of parenthood.

Fulfills: Depth course AA, AS, AGS, AAS, Social Science Requirement

Course Descriptions

STATISTICS

STAT 1827 Elements of Statistics Lab 0 to 1 Credit Hours

Computer lab focusing on applying statistical software to data analysis and decision making. Using Microsoft Excel software, hands-on applications include, but are not limited to, frequency distribution charts, histograms, descriptive statistics, linear regression, binomial probability, confidence intervals, and hypotheses testing.

STAT 1829 Elements of Statistics 0 to 3 Credit Hours

This course will cover elementary descriptive statistics, probability, various distributions, confidence intervals, sampling methods, hypothesis testing, and correlation and regression.

Fulfills: Foundation Course AA, AS, AGS, AAS, Mathematics Requirement, Natural Science Requirement, Non-Laboratory Course

Prerequisite: MATH 1828 College Algebra with a grade of C or better OR MATH 1826 Intermediate & College Algebra with a grade of C or better OR appropriate placement score.

STAT 1840 Business & Economics Stats I 3 Credit Hours

An introduction to the basic concepts of statistics related to business and economics; including descriptive statistics, probability, discrete and continuous distributions, confidence intervals, sampling methods, hypothesis testing, and correlation and regression.

Prerequisite: MATH 1828 College Algebra with a grade of C or better OR MATH 1826 Intermediate & College Algebra with a grade of C or better OR appropriate placement score.

STAT 1845 Business & Economics Stats II 3 Credit Hours

Continuation of STAT 1840 with applications to business and economic studies; including sample comparisons, analysis of variance, multiple regression, correlation, quality control, time-series, forecasting, business cycles, chi-square tests, and nonparametric methods.

Prerequisite: STAT 1840 Business & Economics Stats I or MATH 1829 Elements of Statistics

THEATER

THEA 1300 Introduction to the Theatre 3 Credit Hours

This course is designed to create for the student an awareness of the skills, arts and sciences involved in the presentation of a play. Special emphasis is given to the problems of the actor and the director.

Fulfills: Breadth course AA, AS, AGS, AAS, Humanities Requirement

THEA 1301 Dir Ind Study/Theatre 1 to 3 Credit Hours

Directed independent study is a structured learning experience offered as an extension of the regular curriculum. It is intended to allow students to broaden their comprehension of the principles of, and their grasp of competencies associated with academic, nonvocational disciplines. Its purpose is to supplement extant courses with individualized, in-depth learning experiences. Such learning experiences may be undertaken independent of the traditional classroom setting, but will be appropriately directed and supervised by regular instructional staff.

Fulfills: Humanities Requirement, Studio Course (AA up to 3 hrs)

Prerequisite: Enrollment by consent of instructor

THEA 1302 Acting I 3 Credit Hours

This course provides varied experiences for the student to apply the fundamental techniques to acting. This course is designed for the actor in the school or community who has begun to "act" in the sense that they have already been in several parts, but who has no real training and wish practical assistance in preparing a role of some proportions. This course is meant for the beginner before he has read widely in more advanced works or at least before he has developed from wide reading and experienced a workable system of his own.

Fulfills: Performance Course, Physical Education Requirement

THEA 1304 Acting II 3 Credit Hours

This course provides a continuation of Acting I. The course provides varied experiences for the students to apply the fundamental techniques of acting, emphasizing the actor's responsibility in creating the character. Class work will involve advanced acting exercises focusing on more in-depth analysis and character development, scenes, research, and different styles of acting as demanded by dramatic literature.

Fulfills: Performance Course, Physical Education Requirement

THEA 1306 Play Production 3 Credit Hours

This course provides the student with additional theatrical experiences. Students apply various techniques necessary to the total theatrical production. Included in the course work is experience in scene study, directing, make-up, and technical theater.

Fulfills: Performance Course, Physical Education Requirement

THEA 1308 Musical Theatre 1 to 3 Credit Hours

This course is designed for students participating in the college musical. Emphasis is placed on the musical and dramatic growth of each student, acquiring an understanding of the many facets of musical theatre and an appreciation of the discipline and effort demanded in coordinating these facets for an artistic performance.

Fulfills: Performance Course, Physical Education Requirement

THEA 1310 Stagecraft 3 Credit Hours

This course will acquaint the student with the tools, materials, and proper techniques used in scene construction and theatrical stage lighting.

Fulfills: Humanities Requirement, Studio Course (AA up to 3 hrs)

THEA 1315 Introduction to Film 3 Credit Hours

This course is an introduction and overview of the art of motion pictures including its social and cultural power for entertainment and communication purposes. Students will examine how films are produced and how directors employ various techniques for effect. They will learn of its development of those who made major contributions to the industry, of its impact in today's culture and especially how they can learn to watch films critically.

THEA 1320 Topics in Theatre 3 Credit Hours

Topics in Theatre is designed to provide the student with exposure to a specific topic in theatre. The topics one can choose range from studies in ancient Greek to plays and theatrical similes that the world has now.

THEA 1326 Creative Dramatics 1 Credit Hours

Creative Dramatics is a five-week course for one hour of credit designed to provide an opportunity for students to create dramatic literature. Special emphasis will be given to improvisational theatre.

THEA 1327 Creative Dramatics: Children **3 Credit Hours**

Designed to provide an opportunity for students working with young children to participate in creating dramatics. Children's theater will discuss instructional and therapeutic purposes for the theater as well as interest and stimulate the imagination of the child.

Fulfills: Breadth course AA, AS, AGS, AAS, Humanities Requirement

THEA 1328 Make-Up for the Theatre **1 to 2 Credit Hours**

This course is designed to introduce the student to the styles of make-up that are used on stage. The course consists of most areas of make-up technique, which compliment the efforts of a particular theatrical style, resulting in a finished stage presentation. The course will concentrate on many styles and procedures for applying stage make-up.

Fulfills: Humanities Requirement, Studio Course (AA up to 3 hrs)

THEA 1330 Introduction to Film **3 Credit Hours**

This course introduces the artistic elements of film. The course will include analyses of sound, score, editing, color visual effects, direction, acting, cinematography, genre, and writing. Students will be exposed to the history and artistic progression of each element through the viewing of applicable films.

TRADE AND INDUSTRY**TRAD 1750 Occupational Internship I** **1 to 6 Credit Hours**

This course is designed to provide the student with practical work experience and on-the-job training within his chosen career field.

TRAD 1751 Occupational Internship II **1 to 6 Credit Hours**

Prerequisite: TRAD 1750 Occupational Internship I with a grade of D or better

TRAD 1752 Occupational Internship III **1 to 6 Credit Hours**

Prerequisite: TRAD 1751 Occupational Internship II with a grade of D or better

TRAD 1753 Occupational Internship IV **1 to 6 Credit Hours****TRAD 1764 Leadership Train Techniques I** **1 to 3 Credit Hours**

This course is designed to help the supervisor develop effective management techniques. Class work and projects cover areas of management leadership dealing with the leadership formula, management skills, improving communication, the mutual reward theory, handling power with care and the decision making process.

WATER**WATR 1000 Disinfect through Chlorination** **1 Credit Hours**

This course is designed to provide students with basic knowledge in the design standards, government regulations, equipment, operation and maintenance of public water supply systems. Practical and classroom training will be included. Upon successful completion of the course, students will be prepared to demonstrate identified skills to their employer for qualification purposes.

WATR 1001 Waste Stabilization Ponds **1 Credit Hours**

This course is designed to provide students with basic knowledge in the design standards, government regulations, equipment, operation and maintenance of waste water systems. Practical and classroom training is included. Upon successful completion of the course, participants will be prepared to demonstrate identified skills to their employer for qualification purposes.

WELDING**WELD 1330 Welding I** **1 to 3 Credit Hours**

This is a basic course covering the principles of arc and acetylene welding including lecture and demonstration of welding procedure, equipment, cutting nomenclature, safety, and practice in basic welding. Welding joints and defects of welds are covered.

WELD 1349 Gas Tungsten Arc Welding **3 Credit Hours**

Through classroom and/or lab/shop learning and assessment activities, students in this course will: explain the gas tungsten arc welding process (GTAW); demonstrate the safe and correct set up of the GTAW workstation; relate GTAW electrode and filler metal classifications with base metals and joint criteria; build proper electrode and filler metal selection and use based on metal types and thicknesses; build pads of weld beads with selected electrodes and filler material in the flat position; build pads of weld beads with selected electrodes and filler material in the horizontal position; perform basic GTAW welds on selected weld joints; and perform visual inspection of GTAW welds.

WELD 1350 Shielded Metal Arc Welding **3 Credit Hours**

Through classroom and/or lab/shop learning and assessment activities, students in this course will: describe the Shielded Metal Arc Welding process (SMAW); demonstrate the safe and correct set up of the SMAW workstation; associate SMAW electrode classifications with base metals and joint criteria; demonstrate proper electrode selection and use based on metal types and thicknesses; build pads of weld beads with selected electrodes in the flat position; build pads of weld beads with selected electrodes in the horizontal position; perform basic SMAW welds on selected weld joints; and perform visual inspection of welds.

WELD 1351 Gas Metal Arc Welding **3 Credit Hours**

Through classroom and/or shop/lab learning and assessment activities, students in this course will: explain gas metal arc welding process (GMAW); demonstrate the safe and correct set up of the GMAW workstation; correlate GMAW electrode classifications with base metals and joint criteria; demonstrate proper electrode selection and use based on metal types and thicknesses; build pads of weld beads with selected electrodes in the flat position; build pads of weld beads with selected electrodes in the horizontal position; produce basic GMAW welds on selected weld joints; and conduct visual inspection of GMAW welds.

WELD 1352 Cutting Processes **3 Credit Hours**

Through classroom and/or shop/lab learning and assessment activities, students in this course will: distinguish several types of mechanical and thermal cutting equipment and processes used in the welding trade; demonstrate the safe and correct set up, operation and shut down of the Oxy-fuel (OFC) workstation; demonstrate the safe and correct set up, operation and shut down of the Plasma Arc (PAC) workstation; demonstrate the safe and correct set up, operation and shut down of the Carbon Arc Cutting with Air (CAC-A) workstations; demonstrate safe and proper operation of several types of mechanical cutting equipment; and inspect quality and tolerance of cuts according to industry standards.

WELD 1353 Blueprint Reading - Welding **3 Credit Hours**

Through a variety of classroom and/or shop/lab learning and assessment activities, the students in this course will: identify basic lines, views, and abbreviations used in blueprints; interpret basic 3D sketches using orthographic projection and blueprints; solve applicable mathematical equations; use basic measuring tools; interpret scale ratios on a blueprint; identify basic welding joints and structural shapes; interpret a Bill of Materials; identify standard AWS weld symbols.

Course Descriptions

WELD 1354 Safety

1 Credit Hours

Through a variety of classroom and/or lab learning and assessment activities, students in this course will: explain job/site safety and precautions for job/site hazards determine the uses of personal protective equipment (PPE); identify the safety equipment and procedures related to safe work practices and environment; identify fire prevention and protection techniques; explore Hazardous Communications (HazCom) including Material Safety Data Sheets (MSDS).

WOODWORKING

WDWK 1900 Woodworking I

1 to 3 Credit Hours

An introductory course designed to teach planning of work, as well as skills in using hand tools, machines and related equipment. The student will develop an appreciation for workmanship, quality materials and safe equipment.

WDWK 1902 Woodworking II

1 to 3 Credit Hours

This course is a continuation of Woodworking I. Basic procedures will be developed further with an emphasis on developing complete plans for woodworking projects.

Prerequisite: WDWK 1900 Woodworking I

WDWK 1905 Individual Woodworking Project

1 to 3 Credit Hours

An individualized plan of study that is a structured learning experience designed to supplement previous coursework. It is intended to allow students to broaden their comprehension of the principles of, and their grasp of competencies within their career discipline. Such learning experiences may be undertaken independent of the traditional classroom setting, but will be appropriately directed and supervised by regular instructional staff.

Prerequisite: WDWK 1902 Woodworking II or consent of instructor.