

Course Descriptions

New Mexico Common Course Number and Transfer Module Area is listed parenthetically following course description (if applicable). See Transfer Among New Mexico Higher Education Institutions on page 4 - 5 of this catalog.

Academic Career Studies

ACS 200 PLANNING FOR CAREER SUCCESS (3)

Planning for Career Success will familiarize students with concepts, ideas and activities designed to develop individual motivation and self-esteem to achieve future career success and satisfaction. The student will be introduced to methods of self-assessment, interest assessment, career exploration, job skills, life skills, and work/career readiness. The students will be engaged in dynamic and interesting activities.

First-year Experience (FYEX)

FYEX 1110 FIRST-YEAR SEMINAR (3)

This course is designed to help students achieve greater success in college and in life. Students will learn many proven strategies for creating greater academic, professional, and personal success. Topics may include career exploration, time management, study and test-taking strategies to adapt to different learning environments, interpersonal relationships, wellness management, financial literacy, and campus and community resources.

Accounting (ACCT)

ACCT 2115 SURVEY OF ACCOUNTING (3)

Designed to provide a basic understanding of accounting procedures for small businesses. Provides a foundation of the accounting cycle for a small business enterprise and a practical understanding of business financial statements.

ACCT 2110 PRINCIPLES OF ACCOUNTING I (FINANCIAL) (3)

An introduction to financial accounting concepts

emphasizing the analysis of business transactions in accordance with generally accepted accounting principles (GAAP), the effect of these transactions on the financial statements, financial analysis, and the interrelationships of the financial statements.

ACCT 2120 PRINCIPLES OF ACCOUNTING II (MANAGERIAL) (3)

An introduction to the use of accounting information in the management decision making processes of planning, implementing, and controlling business activities. In addition, the course will discuss the accumulation and classification of costs as well as demonstrate the difference between costing systems. Prerequisite: ACCT 2110.

ACCT 2320 PERSONAL INCOME TAX (3)

This course familiarizes the student with the Internal Revenue codes as they pertain to the individual. Topics include individual tax computation, income, deductions, capital gains and losses, credits and alternative tax methods. The course includes preparation of tax returns and accounting procedures for individuals. Prerequisite: ACCT 111.

ACCT 2240 COST MANAGEMENT ACCOUNTING (3)

Expands the student's ability to use job order and process costing systems as well as the student's ability to apply and analyze accounting information for decision making in planning and controlling business activities. This includes the collecting of cost information, cost estimation and allocation, standard costs, budgeting and cost-volume-profit relationships. Prerequisite: ACCT 2125.

ACCT 2125 INTRODUCTION TO INTERMEDIATE ACCOUNTING I (3)

Introduction to intermediate accounting concepts, principles and practices, stressing financial reporting theory, applied financial accounting problems and contemporary financial accounting issues. Focuses on the determination of income and financial position of the corporate form of organization. Prerequisite: ACCT 2120.

Agri-Business

ABM 162 ENTREPRENEURIAL BUSINESS

(3)

This course is designed to introduce business management principles used in a proprietorship. Setting up a business, record keeping, customer relations, and marketing strategies are among the topics covered in this course. Students planning to start their own business should benefit from this course.

ABM 190 INTERNSHIP IN AGRI-BUSINESS

(3)

This course is designed to provide the student with the opportunity to gain on the job experience. Students gain this experience by working under the direct supervision of an agri-business expert. Exposure to technical skills, business management, and customer relations are the content of this course. The internship can be done fall or spring semester or during the summer session.

ABM 266 AGRICULTURE FINANCE (3)

Characteristics of agriculture in relation to financial costs, risks and returns are reviewed; Practices and procedures of agricultural credit institutions are also considered. The principles of financial management in agriculture are also covered.

ABM 290 INTERNSHIP IN APPLIED AGRI-BUSINESS (3)

This course is designed to provide on the job work experience. Students gain hands-on work experience by working with an expert in agri-business. Knowledge of technical skills, business management, and customer relations are realized in this course. The Internship can be done in the fall or spring semester or during the summer session.

Agicultural ECON/ECON (AEEC)

AEEC 1110 INTRODUCTION TO AGRICULTURAL ECONOMICS AND BUSINESS (3)

Orientation to agricultural economics and business through the discovery process for the consumer in the food, fiber and natural resource sectors of the global economy. The course will discuss the application of micro- and

macro-economic principles as they relate to agricultural economics and business.

MARKETING (MKTG)

MKTG 2210 AGRICULTURE MARKETING

(3)

This course explores the principles of marketing agricultural products and commodities. Instruction in the techniques of marketing services provided to agriculture related fields is also provided in this course. Development, analysis and decision-making associated with marketing of agricultural products and services are studied.

Allied Health Sciences

AHS 101 INTRODUCTION TO ALLIED HEALTH SCIENCE (3)

This course introduces students to various health professions and the common knowledge, skills, and professional dispositions necessary for success in the health care field. Students will explore basic concepts in anatomy and physiology, medical terminology, human growth and development, cultural diversity, legal and ethical issues, components of the health care delivery system, roles and responsibilities of health care professionals and educational requirements as they relate to the health care field.

AHS 118 STANDARD FIRST AID AND ADULT CPR/AED (0.5)

Prepare your staff with the knowledge and skills necessary to prevent, recognize, and provide basic care for injuries and sudden illnesses until advanced medical personnel arrive and take over. This course covers standard first aid, adult CPR and AED training and leads to American Red Cross Certification.

AHS 125 NURSES AIDE (5)

Upon successful completion of this certificate, the student will meet all federal certification standards for a nursing assistant and be prepared to sit for the New Mexico Nurses Aide Certification Evaluation Service. Included are basic principles related to body systems, rehabilitation needs, personal care skills, safety and the special needs of families, children, and the elderly.

AHS 141 FUNDAMENTALS OF CARDIAC MONITORING (3)

This course provides an understanding of the functions of the circulatory system and its related diseases. Emphasis is placed on cardiovascular pharmacology, basic reading of EKG's, and in identifying specific arrhythmias. This course may be used as a preparatory course for the Advanced Cardiac Life Support certification.

AHS 190 INTERNSHIP IN ALLIED HEALTH (6)

This course provides the student an opportunity to gain practical experience in a health care setting. Possible locations for healthcare internships could include a hospital, nursing home health care, hospice, community clinic, and Public Health office. Students will identify learning objectives at the beginning of the internship to be evaluated at the end of the semester.

AHS 218 BLS FOR HEALTHCARE PROVIDERS (1)

In this basic life support (BLS) course, students will learn the skills of CPR for victims of all ages and will practice CPR in a team setting. Students will also learn how to use an automated external defibrillator (AED) and how to relieve choking (foreign-body airway obstruction). The skills learned in this course will enable students to recognize emergencies such as sudden cardiac arrest and how to respond to them.

EMT 101 FIRST RESPONDER (3)

The First Responder course trains students to become an important part of the emergency care team. Students will be introduced to the correct knowledge and practical skills to render appropriate lifesaving emergency care such as: airway and respiratory intervention, cardiopulmonary resuscitation, bleeding control, special wound care, stabilization of spinal injuries, and splinting of fractures.

EMT 102 FIRST RESPONDER/EMT BASIC REFRESHER (2)

The First Responder/EMT-Basic Refresher course is designed to review and update the material taught in the First Responder and EMT-Basic curriculums. The EMS Academy and the University of New Mexico,

Health Sciences Center is the parent program under whose auspices this course is conducted.

EMT 123 EMERGENCY MEDICAL TECHNICIAN - BASIC (6)

The Emergency Medical Technician - Basic is designed specifically for emergency medical personnel who have access to specialized vehicles equipped with specialized items of equipment. The course content trains emergency medical personnel to recognize and stabilize patients with life-threatening emergencies at the scene and in transport, utilizing the specialized items of equipment.

Nutrition (NUTR)

NUTR 1110 NUTRITION FOR HEALTH (3)

This course provides an overview of general concepts of nutrition, which can be applied to food choices that support a healthy lifestyle. The cultural, psychological, physiological and economic implications of food choices are explored.

Health Science (HLSC)

HLSC 1030 MEDICAL TECHNOLOGY (3)

This course involves an integrated anatomy and physiology system approach for teaching medical terminology to the health care student. This assists students in learning terminology and to incorporate this knowledge through an understanding of anatomy and physiology. In this way beginning students discover the purpose and use of medical terms they are learning and using. This course assist students who are learning medical terminology for the first time as well as providing a broader knowledge of terminology as related to anatomy and physiology.

Animal Science (ANSC)

ANSC 1110 ANIMAL SCIENCE CAREERS (3)

Introduction to scientific disciplines and career options in animal-agriculture career skill development, including resume preparation, networking, importance of internships, and leadership experiences in animal agriculture.

ANSC 1120 INTRODUCTION TO ANIMAL SCIENCE (3)

This course is designed to provide an introduction to nutrients and their function in livestock animals. Basic feed identification, evaluation, and diet formulation will be discussed. The anatomy of the digestive tract of animals and their ability to utilize feedstuffs is presented. Classification, digestion, absorption, transport and metabolism of major nutrients required by animals are studied.

ANSC 1510 EQUINE ANATOMY AND PHYSIOLOGY (3)

This course presents to students a broad based approach of horse anatomy and physiology with emphasis on the foot and lower leg. A comprehensive look at hoof and leg dissection is also covered in this course. The biomechanics of these structures are also presented.

ANSC 2110 INTRODUCTION TO EQUINE BEHAVIOR & TRAINING (3)

Basic principles, methods and philosophies of handling, breaking and training the two-year old Western horse.

ANSC 2120 EQUINE MANAGEMENT (3)

Introduction and application of the business skills necessary to effectively manage the equine operation. Students will learn how to use strategic thinking and sound business management practices to succeed in the demanding equine industry.

ANSC 2130 WESTERN EQUITATION II (3)

Intermediate principles of Western riding, including reading horse behavior, limbering-up exercises, and developing riding skills. Introduction to rollbacks, turnarounds and stops.

ANSC 2310 INTRODUCTION TO MEAT SCIENCE (4)

Fundamental aspects of the red meat industry. Lecture topics and laboratory exercises include the nutrient value of meat, meat preservation, meat safety, muscle structure and contraction, slaughter and processing of beef, lamb and pork, sausage manufacture, meat curing, meat cookery, and muscle and bone anatomy. Prerequisite: ANSC 170.

ANSC 2320 PRINCIPLES OF ANIMAL

NUTRITION (3)

This course is designed to provide an introduction to nutrients and their function in livestock animals. Basic feed identification, evaluation, and diet formulation will be discussed. The anatomy of the digestive tract of animals and their ability to utilize feedstuffs is presented. Classification, digestion, absorption, transport and metabolism of major nutrients required by animals are studied.

ANSC 2330 ANIMAL PRODUCTION (3)

Production and utilization of beef cattle, sheep, and swine; emphasis on feeding, breeding, management problems and marketing; selection of animals for breeding and market.

ANSC 2340 GENETICS IN ANIMAL SCIENCE (3)

Introduction to genetics and inheritance relative to livestock production. Introduction to procedures for collection and use of performance information in livestock improvement programs.

ANSC 141 HORSEMANSHIP (3)

This course is designed to familiarize students with the basic horsemanship concepts and skills. Safety in handling horses (catching, holding, tying, and restraining) and assessment of horses are introduced. Tack and equipment used in the care, handling, and riding of horses are also covered. Students must provide their own horse and tack.

ANSC 150 ANATOMY AND PHYSIOLOGY OF DOMESTIC ANIMALS (3)

This course is designed to provide for the study of various systems within the bodies of animals. The structure and function of these systems is the content of this course. Various farm animals are studied, including the cow, horse, sheep and pig. Other animals are included in certain sections.

ANSC 170 LIVESTOCK EVALUATION (3)

This course provides the student with instruction on the selection, classification, grading and judging of livestock. Evaluation areas include beef cattle, hogs, sheep, horses, and carcass. Students gain valuable

experience in these processes through hands-on practice of selection and judging. Students' oral communication skills are enhanced through practice in giving oral reasons.

ANSC 170L LIVESTOCK EVALUATION LAB (1)

This course is designed for students wishing to gain additional hands-on experience in judging livestock. This practicum based course addresses livestock selection, grading, evaluation, and placing. Corequisite: ANSC 170.

ANSC 171 ORAL LIVESTOCK REASONS (4)

This is an introductory livestock judging course which offers instruction in oral reasons in livestock judging. Many types and styles of oral reasons in defense of placing cattle, swine, sheep, and horses along with livestock carcasses of each species will be covered.

ANSC 230 ANIMAL HEALTH AND DISEASE (3)

This course provides an overview of animal health and the diseases which lead to unhealthy animals. The primary focus is on diseases common to farm animals. The diagnosis, management and control of animal diseases, treatment and prevention are also included.

ANSC 255 BEEF PRODUCTION (3)

This course is designed for students planning a career in some segment of the beef cattle industry. Students will be instructed on management and marketing practices of beef cattle, including selection, breeding, nutrition and reproduction. Production and management of beef cattle in all segments of the industry with a holistic approach are also studied. Prerequisite: ANSC 2330.

ANSC 271 ADVANCED LIVESTOCK EVALUATION (4)

This is an advanced Animal Science course which offers the student an opportunity to study the differences in breeds of livestock, relationships between form and function of livestock, and serves as a preparation for national livestock judging competition. Extensive time will be spent on judging and presenting oral reasons. Prerequisite: ANSC 171.

ANSC 285 RUMINANT NUTRITION (3)

This is an advanced nutrition class focusing on ruminant farm animals: cattle, sheep and goats. Energy, nitrogen and mineral nutrition of ruminants with special emphasis on digestive physiology and metabolism of non-protein nitrogen compounds are covered. Prerequisite: ANSC 2320.

ANSC 290 INTERNSHIP-APPLIED ANIMAL SCIENCE (3)

This course is designed to provide on-the-job work experience. Students gain hands-on work experience with an expert in animal science. Knowledge of technical skills, business management, and customer relations are realized in this course. The internship can be done fall or spring semester or during the summer session. Prerequisite: ANSC 1110.

Anthropology (ANTH)

ANTH 1210 INTRODUCTION TO ARCHEOLOGY (3)

Introduction to Archaeology provides students with an overview of archeological fundamentals and how these can be utilized to understand ancient societies. The course emphasizes the analysis of modern societies as a method of reconstructing the past. There is a detailed case study of the Maya site of Copan.

ANTH 1140 INTRODUCTION TO CULTURAL ANTHROPOLOGY (3)

This is an introductory course that provides an overview of cultural anthropology as a subfield within the broader discipline of anthropology and as a research approach within the social sciences more generally. The course presents core concepts and methods of cultural anthropology that are used to understand the ways in which human beings organize and experience their lives through distinctive cultural practices. More specifically, this course explores social and cultural differences and similarities around the world through a variety of topics such as: language and communication, economics, ways of making a living, marriage and family, kinship and descent, race, ethnicity, political organization, supernatural beliefs, sex and gender, and globalization. This course ultimately aims to present a broad range of perspectives and practices of various cultural groups from

across the globe.

ANTH 2160 PREHISTORIC PEOPLES OF THE AMERICAN SOUTHWEST (3)

This course will explore many aspects of prehistoric peoples in the American Southwest. Beginning with the populating of the Southwest, this course will discuss interactions between these populations and their environment, as well as technological advances, subsistence practices, social structures, and settlement patterns. The course will also explore the processes of change and how prehistoric populations compare with modern ones.

Art

Art History (ARTH)

ARTH 1110 ART APPRECIATION (3)

This course introduces and explores visual arts, providing an awareness of the significance of the arts at personal, societal and historical levels including both fine and applied arts. (ARTH 1110 - Area V)

ART 1141 ART OF THE COMICS (3)

With the combination of words and imagery, comics have developed a language of fine art and visual culture within context of visual art. We will study the evolution of this three to four panel comic to trade paper backs and graphic novels, and place the development of the comics in its social context. Distinctive focuses of the course will be the expansion of comic strips in late nineteenth to twenty-first century America; the birth of the comic book in the 1930s with the concept of the superhero, and the rise of underground (or indy) and alternative graphic culture. We will also investigate the semantics of word and image as well as many postmodern theories which attempt to unravel the imagery in the graphic novels from the 1930s to the present. (ARTH 1141 - Area V)

ARTH 2110 HISTORY OF ART I (3)

This survey course explores the art and architecture of ancient pre-historic cultures through the end of the fourteenth century. While focused primarily on the art of

the Western civilizations, this course will also provide insights into the works of other major cultures in order to provide alternate views of art and history. Emphasis will be placed on the relationship of artworks to political, social, spiritual, intellectual, and cultural movements that affect and are affected by their creation and development. (ARTH 2110 - Area V)

ARTH 2120 HISTORY OF ART II (3)

This survey course will explore the architecture, sculpture, ceramics, paintings, drawings, and glass objects from the 14th century to the modern era. While focused primarily on the art of the Western civilizations, this course will also provide insights into the works of other major cultures in order to provide alternate views of art and history. Emphasis will be placed on the relationship of artworks to political, social, spiritual, intellectual, and cultural movements that affect and are affected by their creation and development. (ARTH 2120 - Area V)

ARTH 2140 ART OF THE AMERICAN SOUTHWEST (3)

This course examines the major cultures and artistic traditions of the southwest and their historical bases from prehistoric times to the present. (ARTH 2140 - Area V)

Arts Studio (ARTS)

ARTS 1240 DESIGN I (3)

This course introduces the fundamentals of two-dimensional design as it applies to fine art and commercial contexts. Emphasis will be on basic color theory, elements of dynamic composition, vocabulary of visual arts and design, and development of visual conceptual skills. Students will use a variety of materials and techniques. (ARTS 1240- Area VI)

ARTS 1250 DESIGN II (3)

This course introduces the basic formal (aesthetic), spatial, and physical aspects of 3-D form as they can be applied to sculptural and functional design. Techniques that explore structure, mass, volume, scale, surface, form, and function are covered, along with various media, which may include paper, wood, clay, and/or metal. (ARTS 1250- Area VI)

ARTS 1320 CERAMICS I (3)

An introduction to the medium of clay incorporating hand building and wheel throwing to introduce the student to both the sculptural and utilitarian uses of clay. The student will also be introduced to a variety of glazing and firing techniques. Out-of-class work required. (ARTS 1320- Area VI)

ARTS 1410 INTRODUCTION TO PHOTOGRAPHY (3)

This course introduces the making of photographic images from a broad viewpoint to consider both as an art practice and as a cultural practice. The course covers technical information on camera use and functionality, composition and visual design, digital workflow and editing, professional functions of manipulating and enhancing images, and printing correctly and effectively. The historical aspects of photography are also covered. Out-of-class work required. (ARTS 1410- Area VI)

ARTS 1520 DIGITAL MEDIA I (3)

This course provides an introduction to two of Adobe's major software applications, Illustrator and Photoshop, which are essential in creating artwork, designing promotional materials, websites and more. Part of the course deals with creating a variety of documents using the major tools of each program, and gaining an understanding of the contemporary graphic industry and basic elements and principles of design. (ARTS 1520- Area VI)

ARTS 1530 DIGITAL MEDIA II (3)

This course introduces one of the major software applications in Adobe Creative Cloud, InDesign, with emphasis on obtaining a working knowledge of this software to create publications and documents of all kinds, promotional materials, press releases, newsletters, website, and more. Prerequisites: ARTS 1520

ARTS 1541 INTRODUCTION TO DIGITAL FABRICATION FOR THE ARTS (3)

This course is a hands-on exploration in the art and process of digital fabrication. The course will assist students in nurturing the ability to efficiently translate

ideas and concepts into digitally produced physical objects. Students will be given the opportunity to create objects utilizing industrial laser and waterjet cutters, 3d printers and a Computer Numerical Control (CNC) mill.

ARTS 1542 DIGITAL ART TO 3D CNC (3)

This course teaches the general concepts of using CNC machines in the studio arts. Through lecture and lab assignments, the student will learn basic skills necessary to convert two-dimensional digital pictures into three-dimensional Computer Aided Design data for surface machining. Toolpaths will be generated and parts will be machined using CNC Machine Tools. Terminology used in the field of CAD/CAM will be emphasized.

ARTS 1610 DRAWING I (3)

This course introduces the basic principles, materials, and skills of observational drawing. Emphasis is placed on rendering a 3-D subject on a 2-D surface with visual accuracy. Other topics include historical and contemporary references as well as an investigation of linear perspective, line, value, shape, space & composition. (ARTS 1610- Area VI)

ARTS 1616 DRAWING COMICS & SEQUENTIAL ART (3)

This studio/history/concept course will explore the role which sequential art and comics play in society and our personal lives. In an increasingly visual culture how does the language of comics help to communicate visual ideas more accurately? This class is designed for the student who wishes to investigate self-expression and storytelling using the narrative form of sequential art. Students will question why we feel the need to tell stories and how our world view is reflected in autobiography. Using the hands-on experience of creating their own comic stories, students learn how to communicate their visual ideas more clearly and accurately. Each class will include a discussion of the concepts of comics using examples and recommended sources of research and inspiration. Topics will include the language of comics, page design, visual thinking strategies, dreaming, memory, wordless comics, writing outlines and wordsmithing. Week by week we will extensively cover an aspect of how and why comics work while students simultaneously create their own sequential art. (ARTS 1616- Area VI)

ARTS 1630 PAINTING I (3)

This course introduces the tradition of painting as a medium for artistic expression. Students will investigate materials, tools, techniques, history and concepts of painting. Emphasis is placed on developing descriptive and perceptual skills, color theory, and composition.

Prerequisite: ARTS 1610. (ARTS 1630- Area VI)

ARTS 1710 INTRODUCTION TO PRINTMAKING (3)

This course provides direct experience of exploring basic printmaking processes, including relief, intaglio, and monoprint processes, as well as the investigation of materials/media, tools, techniques, history, and concepts of printmaking. Emphasis is given to solving problems through thematic development while producing a portfolio of prints. (ARTS 1710- Area VI)

ARTS 1810 JEWELRY AND SMALL METAL CONSTRUCTION I (3)

This course introduces the basic techniques, materials, and tools traditionally used in the creation of jewelry and/or small-scale sculptural objects.

ARTS 1830 SHOP FOUNDATION (3)

This course provides an introduction to the proper use of shop facilities with an emphasis on the safety procedures required for their proper use. The course will provide the student with a foundation of technical skills for use in the production of their work in subsequent classes.

ARTS 1840 SCULPTURE I (3)

This course introduces the student to a variety of medium and techniques used in the production of sculpture; along with the historic, conceptual, and esthetic foundations of the sculptural process.

(ARTS 1840- Area VI)

ARTS 1854 ARTISTIC BLACKSMITHING (3)

This course focuses on the fundamental techniques of forging and metalsmithing. It will cover the basics of forging, fabrication and finishing, as well as an introduction to decorative processes, ergonomic and functional problems, and the construction of mechanisms. The class is structured with an emphasis on technique, and will include demonstrations each class.

ARTS 1860 BEGINNING SPUR MAKING (4)

This course is designed for introductory level spur making including the overlay of silver. This course will enable students to gain the skills necessary in fabricating the band, shank, hangers and rowels required in making a pair of spurs. Students will also acquire an understanding of the theory and practice of metal cutting, shaping, welding, and finishing of one pair of spurs. Lab will consist of design and completion of a pair of spurs.

ARTS 1861 SPURMAKING I (3)

This course presents the principles and techniques of fabricating spurs. Students gain skills in welding, hard and soft soldering, riveting, and overlay. Students also acquire skills necessary in designing spurs along with understanding form and function.

ARTS 1862 BASIC CASTING TECHNIQUES (3)

Basic Casting Techniques is an introduction to fundamental foundry practices. Students will model several small sculpture and reliefs. At least one project may be chosen to be poured in bronze. Elementary wax chasing, sprueing, and metal chasing will be experienced through practical application. Elementary design will be considered.

ARTS 1863 SILVERSMITHING FOR THE ARTIST (3)

This laboratory-oriented course is designed for either farriers or artistic blacksmiths who have a desire to enhance their forging skills. Students are allowed to select and practice the forging or blacksmithing skill of their own choosing.

ARTS 1864 ARTISTIC SILVERSMITHING (3)

This course is designed for introductory level engraving on precious and non-precious metals. This course consists of understanding the theory and practice of hand and power assist engraving on spurs and jewelry.

ARTS 1865 ARTISTIC SILVERSMITHING-BIT AND SPUR MAKING (3)

This course is designed for intermediate level spur making including the overlay and engraving of silver. This course consists of understanding the theory and practice metal cutting, shaping and welding in order to build one pair of spurs. Lab will consist of design and completion of a pair of spurs.

ARTS 1866 SILVERSMITHING (3)

This course is designed for students to gain mastery in fabricating high end silver products. This course will enable students to gain the skills in layout and design, high temp soldering, manufacturing dies to form various silver pieces, placing and soldering of borders. Lab will consist of design and completion of a ranger buckle set.

ARTS 1867 BIT MAKING (4)

This course is designed for entry level bit making. The following topics will be covered-leverage, purchase, leverage-purchase ratio, Mullen and mouthpiece design and placement. Students will also be introduced to tig welding techniques. By course end students will have made one Bayer's style leverage bit, one loose jaw leverage bit, and one snaffle bit. Prerequisites: ARTS 1860

ARTS 1869 SIGNAL BIT DESIGN AND FABRICATION (4)

This course is designed for students in their final semester. In this course students will be required to make a California style spade bit. After successful course completion students will be able to fabricate j-boxes, braces, cricket roller, spoon mouth piece, slobber bar, rein chains, purchase length and leverage. Students will also refine tig welding skills and acquire advanced fabricating skills. Prerequisites: ARTS 1866 and ARTS 2871

ARTS 1870 ENGRAVING (4)

This course is designed for introductory level engraving on precious and non-precious metals. This course consists of understanding the theory and practice of hand and power assist engraving on spurs and jewelry. Students will learn the basic cuts involved in beginning bright cut engraving.

ARTS 2010 PORTFOLIO DEVELOPMENT (1-3)

This course presents the practicalities of building an art career with emphasis on developing a professional portfolio through visual aids, resumes, statements, and presentations. It covers professional practices of the studio artist including self-promotion, contracts, research tools for exhibition venues and other art related opportunities. *For Cowboy Arts and Studio

ARTS 2310 CERAMICS II (3)

This course continues the students' instruction in ceramics, with an emphasis given to the continuing development of form, surface, and firing processes, expanded critical awareness, and the development of a personal aesthetic. Prerequisite: ARTS 1320 (ARTS 2310- Area VI)

ARTS 2610 DRAWING II (3)

This course introduces color and colored media as an element of composition while emphasizing descriptive and perceptual drawing skills and conceptual approaches to contemporary drawing. Prerequisite: ARTS 1610.

ARTS 2615 DRAWING III (3)

Students will utilize all the knowledge and experience acquired in their previous art courses, in order to create a body of work that demonstrates expertise in drawing. They will further refine and develop drawing techniques and concepts, as well as understanding of basic human anatomy for the purpose of artistic expression. Linear perspective, compositional structure, figure/ground integration, spatial perception, and analytical skills will be emphasized extensively.

ARTS 2621L DRAWING FOR ANIMATION (3)

An intermediate level course in drawing for animation and cartooning. Students work with drawing as a progressive story-telling medium, with introduction to storyboarding for film as well as the graphic novel. Students are introduced to the work of cartoonists and animators, whose work has been historically influential in the field. This course provides students with the drawing skills needed for successful use of digital animation tools.

ARTS 2630 PAINTING II (3)

This course focuses on the expressive and conceptual aspects of painting, building on the observational, compositional, technical, and critical skills gained previously. Students will investigate a variety of approaches to subject matter, materials, and creative processes through in-class projects, related out-of-class assignments, library research or museum/gallery attendance, written responses, and critiques. Prerequisite: ARTS 1630.

ARTS 2850 ARTS FOUNDRY I (3)

This course provides the student with an introduction to the use of the casting process in the creation of sculpture. Both sand mold and ceramic shell casting methods will be used. (ARTS 2850- Area VI)

ARTS 2861 MODELING SCULPTURE AND MOLD MAKING (3)

In this course students will create sculptures by modeling the form in plasticine clay. Visual expression of personal concept will be an important factor in each sculpture. Participation in formal and conceptual class critiques will be mandatory for each assignment. Students will create rubber molds from each sculpture, from which wax patterns may be cast in a future class.

ARTS 2862 CASTING WAX AND BRONZE (3)

In this course students will cast wax patterns from molds created in a previous course (Modeling Sculpture and Mold making). Those wax patterns will continue through the entire bronze casting process, including finishing and patination of the sculpture. The student will personally perform each step in the process.

ARTS 2866 ARTISTIC SILVERSMITHING – ENGRAVING (3)

This course is designed for introductory level engraving on precious and non-precious metals. This course consists of understanding the theory and practice of hand and power assist engraving on spurs and jewelry.

ARTS 2870 ENGRAVING II (4)

This course is designed for intermediate level engraving on precious and non-precious metals. This course consists of understanding the theory and practice of more advanced scroll designs and refining techniques learned

in ARTS 1870. Students will learn how to draw and design interlocking scrolls, 2 & 1/2 scrolls, and the incorporation of positive and negative space to create pleasing design patterns. Prerequisite: ARTS 1870

ARTS 2871 ENGRAVING III (4)

This course is designed for the more advanced level engraver. This course will require greater graver control than previous classes and will consist of creating a three dimensional effect through the use of single point line placement. Students will master the techniques involved in creating high tones, mid tones, base tones and high lights to create different effects. Students will also learn the techniques involved in relief of backgrounds. Advanced scroll design from ARTS 2870 will be used but students will be taught how to properly design and engrave complex acanthus leaf structures within these scroll structures. Prerequisites: ARTS 1870 and ARTS 2870

ARTS 2880 ADVANCED PROJECT DESIGN (2)

This course is designed for students in their final semester. After successful course completion students will be able to fabricate a project that requires use of a metal lathe and milling table. Students will also refine tig welding skills and other advanced fabricating techniques. Students will design and fabricate a California style spur. Prerequisites: ARTS 1866 and ARTS 2871.

ARTS 2885 STUDIO (1-4)

This course provides the student who is enrolled in another art course the opportunity for additional working time to complete projects required for those courses. No work originating outside of a current course may be worked on in the course. All safety practices and precautions relating to processes and procedures performed must be observed at all times. Prerequisite: Instructors permission.

ARTS 2996 SPECIAL TOPICS

(1-9 CREDITS)

Specific subjects and credits to be announced in the Schedule of Classes. No more than 9 credits toward a degree. Prerequisite: Consent of the instructor.

ARTS 2999 CAPSTONE (1-4)

The cumulative capstone experience for students majoring in Studio Art, Digital Media Arts, or Cowboy Arts/Silversmithing and Fabrication. Topics include: documenting artwork, an introduction to gallery practices, the selection of work for display, portfolio development, and the Artist Statement. Includes the presentation of a body of work in an exhibition and a final portfolio. Prerequisite: Instructor permission.

ART 121 METHODS OF GRAPHIC DESIGN (3)

Students will gain a working knowledge of the elements and principles of two-dimensional (2-D) design with which to develop a vocabulary of design and visual thinking skills. The creation of art forms historical and contemporary, as well as technical approaches regarding material use and methods for thinking creatively, will be explored.

ART 202 FIGURE DRAWING (3)

Figure drawing introduces the student to drawing the human form with an emphasis upon critical inquiry and analytical observation. The study of skeletal and muscular structure will be covered in this course. Critical analysis of personal and of fellow students' art work is an important element of this course. Prerequisite: ARTS 1610.

ART 204 SCULPTURE II (3)

In Sculpture II, students will choose their media and method of sculpture personally. Students will present a written proposal of what they plan to accomplish during the semester, how they plan to accomplish it, and why. A series of three sculptures which share and carry forward that stated conceptual basis will be completed. Evaluation of personal and fellow students' work is important in the course. Prerequisite: ARTS 1840.

ART 212 GRAPHIC COMMUNICATIONS I (3)

Students will learn to design and produce press-ready projects appropriate for a particular clientele. Students will learn to identify and design for a specific target market based on research done using demographics and by studying 'demo groups'. Students will complete projects making style and design decisions based on this research. Students will use the Macintosh operating system and any or all of the programs in the Adobe Creative Suite (Photoshop, Illustrator and InDesign) to complete projects. Prerequisite: ART/CIS 153

ART 213 GRAPHIC COMMUNICATION II (3)

Students will learn to design and produce a comprehensive 'brand identity' that will be used to complete several graphic applications to promote a solution to an issue of global importance. Students will learn to identify and understand cultural norms other than their own through research and study of other cultures. Students will also complete an extensive portfolio of their work in order to prepare for future employment or for continuing education. Students will use the Macintosh operating system and any or all of the programs in the Adobe Creative Suite (Photoshop, Illustrator and InDesign) to complete projects. Prerequisites: ART/CIS 212.

ART 226 BASIC WEB DESIGN (3)

Students will use the Macintosh computer to employ knowledge from previous courses in order to use the Adobe Bridge, Photoshop, and Illustrator to create graphics and images for web pages. Students will learn industry-standard web design software to set up a new web site, add text and images with CSS (cascading style sheets) and learn how to manage, optimize and maintain the site. Prerequisites: ARTS 1240 and ART 135 or BCIS 1120 and CIS 135 (or instructor consent)

ART 260 PRINTMAKING II (3)

Exploration of ideas using various printmaking media and techniques. This course builds upon Printmaking I fundamentals and introduces additional print processes and combinations of those processes to allow individual expression. Prerequisite: ARTS 1710.

ART 262 ADVANCED BIT DESIGN (3)

This course is designed for advanced level engraving on precious and non-precious metals. This course consists of understanding the more advanced methods of hand and power assist engraving on spurs and jewelry. Prerequisite: FAS 208.

ART 263 ADVANCED JEWELRY

FABRICATION (3)

This course presents the principles and techniques of fabricating Western style jewelry. Students gain skills in welding, hard and soft soldering, riveting, stone setting, and overlay. Students also acquire skills necessary in correctly designing jewelry items along with understanding form and function. Prerequisites: ARTS 1863 and ARTS 1865.

ART 264 ADVANCED ENGRAVING

TECHNIQUES (3)

This course is designed for advanced level engraving on precious and non-precious metals. This course consists of understanding the more advanced methods of hand and power assist engraving on spurs and jewelry. Prerequisite: ARTS 2866.

ART 290 SILVERSMITHING STUDIO (3)

This course is designed for students who have taken a previous Western Arts class and would like to use the lab areas to work on personal projects, further refine existing skills or receive instruction in areas of weakness. Students may work in both the fabrication lab and the engraving lab. Prerequisite: Any previous Western Arts class.

ART 293I SPECIAL TOPICS:

SILVERSMITHING (3)

This course is a week-long class from 8 AM to 9 PM with two one hour breaks taught by multiple instructors designed for intermediate to advanced level engravers. This course consists of understanding the theory and practice of more advanced scroll designs, leaf structures, single and multiple wire inlay and styles of scrolls. Students are required to spend a total of at least 15 lab hours prior to the class fabricating a project to work on during class and another 10 after the class on completing the engraving. The final project must be submitted pictorially to instructors for final approval. Prerequisite: ARTS 2870 or instructor approval

ART 294 SPECIAL TOPICS:

FABRICATION (3)

This course is a comprehensive study in fabricating of the many ornamental trappings used in western culture. Fabricating rope borders, three piece buckle sets, advanced conchos and other such items will be taught. Students will also gain knowledge in tig welding and high temperature solders and the subsequent cleanup of fabricated items. Upon course completion, students will have gained all the necessary skills in the fabrication of all high-end ornaments and devices used and worn by individuals in western culture.

Film & Digital Media Arts (FDMA)

FDMA 1515 INTRODUCTION TO DIGITAL

IMAGE EDITING – PHOTOSHOP (3)

In this course, students will learn how to use the tools in Adobe Photoshop to create new images and edit existing images. Tools used will include selections, layers, and adjustments, among other pixel editing tools. Basic composition and output will be emphasized in all projects.

FDMA 1535 INTRODUCTION TO

ILLUSTRATOR (3)

Students receive instruction on vector graphics creation using vector illustration software. The students will create professional-quality artwork for print publishing and multimedia graphics. Instruction includes creating and manipulating basic shapes, drawing with the pen tool, using various brushes, working with type and preparing graphics for web, print, and digital publication.

FDMA 1570 GAME DESIGN ANALYSIS (3)

An overview of games past to present and analysis of specific video game genres. Students learn the historical and cultural significance of video games through lecture and research. Students analyze and write about a different genre or video game each week. Topics include game history, game analysis, game mechanics, game design, and game theory.

FDMA 1720 3D CHARACTER DESIGN (3)

Focus on designing a character and then taking that design and building it in 3D using intermediate modeling techniques.

FDMA 2290 ADVANCED DIGITAL PROJECTS (3)

Students work on advanced individual projects using the skills and concepts they learned in intermediate-level MART classes including Photoshop, Web, Animation, Graphics, and Video. Feedback and instruction is provided by student presentations and interaction, and one-to-one contact with the instructor.

FDMA 2381 STORYBOARDING (3)

Examines effective writing principles to create storyboards that communicate the overall picture of a project, timing, scene complexity, emotion and resource requirements. Further, the purpose of this course is to introduce students to the principles of visual storytelling—in film—through the use of the storyboard. In other words, to show how storyboards are a critical “architectural component” of the filmmaking process, used as a blueprint (or guide) to communicate the complex elements of a film story.

FDMA 2530 INTRODUCTION TO 3D MODELING (4)

This course will introduce 3D modeling methods and current practices. Students will learn preliminary and detailed modeling techniques using industry standard software. Methods will emphasize formal and functional aspects of modeling as they apply to mechanical, organic, and sculpted topology for application in animation, games, and information media.

FDMA 2532 INTRODUCTION TO 3D-PRINTING (3)

Introduction to the creation, manipulation and critical interpretation of graphic and photographic artwork. Includes input and output of digital work as it applies to artists. As an entry-level course, it assumes no prior knowledge of the tools and techniques covered.

FDMA 2534 3D MODELING SCULPTURE (3)

Students in this course learn and practice 3D modeling as a tool for visualization and critical making. 3D printing, laser cutting, CNC milling, and other rapid prototyping may be used. 3D modeling is the main focus of this course to sketch, invent and produce both virtual 3D renders and physical projects. Study of concepts, aesthetics, procedures, and practice of sculpting on the computer with 3D modeling tools for the generation of form, environment, and character as related to your conceptual inspirations.

FDMA 2710 BEGINNING 2-D ANIMATION (3)

Students will learn the basics of digital 2D animation by working through a variety of exercises, creating an original storyboard, and animating five or more shots utilizing industry standard software.

FDMA 2720 3-D ANIMATION (4)

Overview of the essentials and principles of 3D animation; creative methods for using industry standard tools to produce the illusion of movement for storytelling. Topics include, key frame and curve animation, kinematics, cycle animation, camera animation, deformers, and constraints.

FDMA 2730 ADVANCED CHARACTER ANIMATION (3)

Focus on complex rigging techniques as well as utilizing advanced animation functions to blend multiple animations into complex animations. May be repeated for a maximum of 6 credits. Restricted to: Community Colleges only.

FDMA 2768 INTRODUCTION TO GAME DEVELOPMENT (3)

In tandem with innovations of modern computing machines, people have been devising ways to “play” with these systems through programming games on these devices. Video games have matured into an expressive medium rooted in using algorithms as the means for constructing interactive experiences. Building these games requires an understanding on principles of interactive design, computer science, and storytelling.

Automotive Technology

AMT 100 AUTOMOTIVE BASICS (2)

This course is a comprehensive study of basic automotive systems. Topics include the study of shop safety, proper use of hand tools, fasteners, gaskets, seals and sealants, measuring tools and an introduction to engine operating systems including electrical, ignition, fuel, cooling and lubrication. This will be a Corequisite course for any new incoming students taking any Automotive and Diesel courses.

AMT 101 BRAKES, STEERING, SUSPENSION, ALIGNMENT THEORY (3)

This course covers the basics of tire and wheel construction, theory of component function and operation of brake, suspension, and steering systems. Topics include principles of hydraulics, suspension geometry, alignment angles, and wheel balance. Emphasis is placed on preventive maintenance, system diagnosis and failure analysis. The course involves discussion and demonstration of proper operation of brake lathes, wheel balance and alignment machines. Safety will be emphasized in the use of all specialized shop tools and equipment and will follow standards set by the Council of Automotive Service Excellence (A.S.E.).

AMT 102 BRAKES, STEERING, SUSPENSION, ALIGNMENT LAB (3)

This course includes diagnosis of brake system problems, repair and service of brake systems using the proper procedures, methods, tools and equipment. Students receive practical shop experiences analyzing and correcting various suspension and steering problems, front-end and rear-end alignment, and steering systems repair. Corequisite: AMT 101.

AMT 111 ELECTRICAL SYSTEMS THEORY (3)

This course is the study of basic electricity, automotive circuitry, and wiring diagrams. Students will receive complete coverage of the batteries, starting, charging and accessory systems including application, testing, diagnosis, and repair. Corequisite: AMT 112.

AMT 112 ELECTRICAL SYSTEMS LAB (3)

This course involves practical application, analysis and repair of areas and systems covered in the electrical systems theory class. It also involves use of This course

involves practical application, analysis and repair of areas and systems covered in the electrical systems theory class. It also involves use of proper methods, tools, specifications and equipment. Corequisite: AMT 111.

AMT 121 ELECTRICAL TUNE-UP AND FUEL SYSTEMS THEORY (3)

This course covers ignition systems including standard, transistorized and electronically controlled systems. Basic fuels, fuel delivery and carburetion as well as electronic fuel injection and multi-port fuel injection are discussed. Students gain knowledge of emission control component theory of operation and diagnosis. Prerequisite: AMT 111.

AMT 122 ELECTRICAL TUNE-UP AND FUEL SYSTEMS LAB(C) (3)

This course involves practical application, repair and diagnosis of ignition, carburetion and emissions systems. Hands-on experience is provided through the use of customer vehicles. Corequisite: AMT 121.

AMT 131 AUTO ELECTRONICS THEORY (3)

Automotive Electronics Theory is the study of the complete electronics system, which includes microprocessors, sensors and actuators of the computerized ignition, fuel injection and emission control systems. The course provides students with coverage of the circuits, application, operation, testing and diagnosis of the above systems. Prerequisite: AMT 121.

AMT 132 AUTOMOTIVE ELECTRONICS LAB (3)

Lab experiences in Automotive Electronics Lab correspond to the material covered in AMT 131. The course includes the proper use of tools, scanners and other test equipment to diagnose the computers, sensors and actuators, along with the repair and adjustment of the computerized ignition, fuel and emission systems.. Corequisite: AMT 131.

AMT 190 INTERNSHIP IN AUTOMOTIVE TECHNOLOGY (3)

Students in this course receive on-the-job experience in a dealership, national chain service facility or independent repair facility under the direct

supervision of the program instructor. Students utilize the skills and knowledge acquired in the previous year. Students will be able to base future employment decisions on the experience received. Note: Students who complete two full semesters of automotive courses and are not employed, may sign up for this course and take it as a Capstone Lab or a combination of each. Prerequisite: Successful completion of first and second semesters of automotive technology or approval of the program director.

**AMT 201 CLUTCH, MANUAL TRANSMISSION/
TRANSAXLE, DRIVE SHAFT,
AND
DIFFERENTIAL THEORY (3)**

This course provides instruction in automotive clutch purposes, design and function, along with the workings of the various modern three-, four-, and five-speed standard transmissions and transaxles. Topics include discussion of drive shaft assemblies along with differential and front wheel drive types. Prerequisite: AMT 100.

**AMT 202 CLUTCH, MANUAL TRANSMISSION/
TRANSAXLE, DRIVE SHAFT,
AND
DIFFERENTIAL LAB (3)**

This course Involves lab work relative to the clutch, manual transmission/transaxle, driveshaft, and differential. It includes use of correct diagnostic, reconditioning and/or overhaul procedures. Corequisite: AMT 201.

**AMT 211 AUTOMATIC TRANSMISSIONS/
AXLE THEORY (3)**

This course provides the fundamentals of hydraulics, planetary gears, holding devices, and their application to automatic transmissions. Students are introduced to the various components and their functions, along with rebuilding the power flows of various present-day automatic transmissions, including four speed overdrives and front wheel drive systems. Prerequisites: AMT 100, AMT 201 and AMT 202.

**AMT 212 AUTOMATIC TRANSMISSIONS/
TRANSAXLE LAB (3)**

This lab includes complete servicing and adjustment procedures, troubleshooting, diagnosis, repair and overhaul of various present-day automatic

transmissions in a live shop. It provides maximum supervision and guidance for completion of this very complex and exacting work. Corequisite: AMT 211.

AMT 221 MAJOR ENGINE THEORY (3)

This course includes the complete theory and techniques of rebuilding, servicing, and diagnosing of the internal combustion engine and its related parts and systems.

AMT 222 MAJOR ENGINE LAB (3)

This course consists of practical application in the techniques of rebuilding and servicing the automotive and light truck engines and their related systems, using the proper procedures, tools and testing equipment.. Corequisite: AMT 221.

AMT 231 AUTO ENVIRONMENTAL SYSTEM THEORY (3)

This course covers principles of evaporation, heat transfer, temperature and pressure. Students become familiar with various systems in regard to circuits, components and their operation in each application. The course includes an explanation of heating and air conditioning systems as presently used in today's automobiles, including integrated and isolated installation, and their corresponding control systems. Students are provided with instruction on the proper use of refrigerant recovery/recycling/recharging equipment. Prerequisite: AMT 111.

AMT 232 AUTOMOTIVE ENVIRONMENTAL SYSTEMS LAB (3)

This lab includes diagnosis, service, repair, installation, and overhaul of live environmental systems. It covers custom, factory, and automatic systems of the popular makes and models used in present-day automobiles. Personal safety is stressed. Corequisite: AMT 231.

AMT 290 INTERNSHIP IN APPLIED AUTOMOTIVE TECHNOLOGY (3)

AMT 290 is a continuation of AMT 190 Internship in Automotive Technology. This course provides students with additional hands-on experience under the direction of the program instructor. Prerequisite: AMT 190.

AMT 293 ADVANCED LAB FOR APPLIED AUTOMOTIVE (3)

AMT 293 is a continuation of AMT 190 and AMT

290 Internship in Automotive Technology. This lab course provides students with additional hands-on experience under the direction of the program instructor. Prerequisites: AMT 190 and AMT 290.

Biology (BIOL)

BIOL 1110C GENERAL BILOLOGY

LECTURE & LABORATORY (4)

Combination of BIOL 1110 and 1110L.

BIOL 1411 GENETICS (4)

This course introduces the student to the basics of Genetics and heredity, and proceeds with an in-depth examination of genetic diseases, population Genetics, stem cell research and genetic engineering. Each topic will be accompanied by extensive lab work, experiments, semester projects and writing assignments with the aim to teach the student the methods of scientific writing.

BIOL 124 INTRODUCTION TO FORENSIC SCIENCE (4)

This course introduces the student to Forensic science as a practical application of science to matters of the law. In this class the student will study the basic techniques of forensic science, such as DNA fingerprinting, the classification of illicit drugs, the preservation of evidence, crime scene investigation and many other laboratory and field techniques such as the detection of art forgery, investigation of fire and explosions, and ballistic. Each subject is accompanied by practical exercises and lab work.

BIOL 2210C HUMAN ANATOMY AND PHYSIOLOGY I LECTURE & LABORATORY (4)

Combined BIOL 2210 and BIOL 2210L

BIOL 2215 COMPARATIVE VERTEBRATE ANATOMY (4)

This course presents an introduction to the anatomy of vertebrate animals. Students will explore the basic structure and functions of vertebrates including the skeleton, musculature and physiological systems. Laboratory exercises will emphasize the skeleton of mammals including humans, birds, and reptiles using real specimens and will include examination of fossil vertebrates and virtual dissections on computers. Prerequisite: BIOL 1110C, or ANSC Course or FAS course (or consent of instructor).

BIOL 2310C MICROBIOLOGY LECTURE & LAB (4)

Combined BIOL 2310 and BIOL 2310L. (BIOL 2514 - Area III)

BIOL 212 HUMAN ANATOMY AND PHYSIOLOGY II (4)

This course is a continuation of Human Anatomy and Physiology I. The following systems of the human body are covered: nervous, endocrine, blood, cardiovascular, lymphatic, digestive, respiratory, urinary and reproductive. The lecture portion of the course introduces the student to the systems of the human body while the laboratory portion of the course allows the student the opportunity to electronically explore the structure and function of these systems. Prerequisite: BIOL 2210C.

Building Trades

BT 105 INTRODUCTION TO BUILDING TRADES AND SAFETY (3)

Topics in this course are the history of the building trades and how they each fit into the building process. Students will be introduced to employability of the employee in the building trades. Students will be introduced to safety in the trades and on the building site. They will also be introduced to and instructed in the use of basic hand and power tools.

BT 111 CONSTRUCTION TECHNOLOGY I (3)

Topics in this course are site layout, distance

measurement and leveling, handling and placing concrete. Concrete reinforcement and methods and materials for reinforcement Students will be introduced to Masonry, the history of Masonry materials and the materials that are in use today. Students will learn about Masonry units and installation techniques.

BT 112 CONSTRUCTION TECHNOLOGY II (3)

Topics in this course are site layout, distance measurement and leveling, and handling and placing concrete. Students will be introduced to the construction of floor systems, wall, ceiling, and roof framing, and will learn how the various trades fit into the building process. Prerequisite: BT 111.

BT 115 FUNDAMENTALS OF FRAMING (3)

This course is a hands-on study of basic framing. Topics will include wood as a building material, engineered lumber, engineered panel products, framing methods, floor framing, wall and ceiling framing, roof framing, rafter types, trusses and roof assembly. Other topics include framing of windows, exterior doors and basic stair layout. Prerequisites: BT 103 and BT 111

BT 116 BLUEPRINT INTERPRETATION (3)

This course introduces students to the skills necessary for reading blueprints. Students will explore projections and views, technical sketching, and the use of blueprints in construction. Instruction will also include information on graphic and pictorial representation, working drawings and structured building details.

BT 118 INTRODUCTION TO ELECTRICAL (3)

Topics in this course are safety on the job-site when working with electricity, common job-site hazards, and working safely with electrical. Students will learn about calculating circuit size including volts, amperes, and wattage, working with different gauges or size of electrical wiring to wire the circuit with the proper size. Students will follow the NEC (National Electrical Code) for proper location and ratings of duplex plugs, light fixtures, and other electrical appliances. Students will receive hands on experience as they wire a new

residential home.

BT 121 CONSTRUCTION TECHNOLOGY III (3)

Topics in this course include roof framing and roofing applications and coverings, such as asphalt shingles and rolled roofing. Stair layout and construction methods for installing and finishing. Students will learn how these various trades fit into the building process. Prerequisite: BT 112.

BT 122 INTERIOR FINISHING (3)

Topics in this course are Drywall installation, Drywall finishing, Door installation, and door hardware. Students will learn how these various trades fit into the building process. Prerequisite: BT 115.

BT 190 INTERNSHIP IN BUILDING TRADES (3)

This course offers 3 credits in a supervised work program. The first-year student is employed in an approved business occupation. Students will be supervised and rated by the employer and instructor. Students will meet in a weekly class and/or report on a variety of films, readings, or seminars.

BT 201 EXTERIOR FINISHING (4)

Topics in this course are Thermal and Moisture protection and different types of exterior finishes. Different types of coatings such as paints and stucco will be covered. Students will learn how these various trades fit into the building process.

BT 202 CONSTRUCTION TECHNOLOGY IV (3)

Topics in this course build on Construction Technology III. Students will become skilled at advanced construction techniques including site layout, floor systems, wall and ceiling framing, roof framing, roofing applications, exterior finishing, and basic stair layout. They will learn how the various trades fit into the building process as they participate in "hands-on" training on the project house. Prerequisite: BT 112.

BT 215 CONSTRUCTION SUPERVISION (4)

Topics in this course include pre-construction planning, project management, contracts, and fiduciary responsibilities. Students will learn the basics of project preparation, scheduling, project documentation, accountability and the pros and cons of a well-organized project. Prerequisite: BT 202.

BT 250 COMPUTER AIDED DESIGN (4)

This is a beginning course providing instruction in mastering fundamental AutoCAD Lite commands and drawing techniques. Typical applications of AutoCAD are presented with basic drafting and design concepts. The topics are covered in an easy to understand sequence and progress in a way that allows students to become comfortable with the commands as their knowledge builds.

BT 260 PROJECT MANAGEMENT (4)

Topics in this course include pre-construction planning, project management, contracts, and fiduciary responsibilities. Students will learn the basics of project preparation, scheduling, project documentation, accountability and the pros and cons of a well-organized project.

BT 290 INTERNSHIP IN BUILDING TRADES II (3)

This course offers three credits in a supervised work program. The second-year student is employed in an advanced, approved business occupation. Students will be supervised and rated by the employer and instructor. Students will meet in a weekly class and/or report on a variety of films, readings, or seminars. Prerequisite: BT 190

Business

Business Administration (BUSA)

BUSA 1110 INTRODUCTION TO BUSINESS (3)

Fundamental concepts and terminology of business including areas such as management, marketing, accounting, economics, personnel, and finance; and the global environment in which they operate.

BUSA 1180 BUSINESS MATH (3)

Applies basic mathematical operations to business and accounting applications.

BUSA 1210 RECORDS MANAGEMENT (3)

Principles, methods and procedures for the selection, operation and control of manual and automated records systems.

BUSA 1310 OFFICE PROCEDURES (3)

Student will learn the importance of following the proper procedures for maintaining an efficient office required in today's technology advanced business environment. Through the use of a simulation, students will utilize the skills acquired through their training program and work experience to prepare documents and complete common business tasks. Prerequisite: BUS 100 or equivalent.

BUSA 2110 BUSINESS COMMUNICATIONS (3)

Skill development in business writing with an emphasis on the preparation of letters and reports, and on presenting information in a logical, forceful and acceptable form. Included are strategies for effective oral communication in a professional environment.

BUSA 2180 INTRODUCTION TO E-COMMERCE (3)

Survey of methods and practices in e-commerce. Topics include the evolution and forms of e-commerce, secure online business transactions, and basic business concepts of e-commerce.

BUSA 2340 SALES (3)

An analysis of the principles and techniques of personal selling as a form of persuasive communication. Sales principles, consumer behavior, the process of the sales interview, and demonstration of selling and promotional

skills are explored.

BUSA 2995 COOPERATIVE WORK EXPERIENCE (1-3)

This course offers 1-3 credits in a supervised work program. The first-year student is employed in an approved business occupation. Students will be supervised and rated by the employer and instructor. Students will meet in a weekly class and/or report on a variety of films, readings, or seminars. Enrollment requires consent of the instructor.

BUSA 2998 INTERNSHIP IN BUSINESS ADMINISTRATION (3)

This course offers 1-3 credits in a supervised work program. The first-year student is employed in an approved business occupation. Students will be supervised and rated by the employer and instructor. Students will meet in a weekly class and/or report on a variety of films, readings, or seminars. Prerequisite: Consent of the instructor.

BUS 289 INDEPENDENT STUDY IN BUSINESS (1-3)

This is an individual, directed study arrangement with the instructor. Prerequisite: Consent of the instructor.

FIN 114 PRINCIPLES OF FINANCE (3)

This course introduces the basic elements of business finance: institutions and markets, review of financial statements, financial analysis of forecasting, working capital management, capital budgeting, cost of capital, long term financing, investing, and international business finance. Prerequisite: ACCT 111.

Business Computer Information Systems (BCIS)

BCIS 1115 INTRODUCTION TO COMPUTERS (4)

This is a lecture and hands-on course on different technologies commonly use in business and different agencies like computer, printer and other computer devices. It includes introduction to hardware, operating software, and MS Office applications like Excel, Word, Access, PowerPoint, Publisher, & other MS Office

Tools. The class will include an overview of the history of technology and its future, as well as giving a fundamental introduction to industry-standard application software for word processing, spreadsheet, database management, and graphics. Basic computer use, files and file structure, windows, the Internet, programming, ethics, and security will also be addressed.

BCIS 1120 COMPUTER LITERACY (3)

Overview of computer hardware, software, and the Windows or Linux environment. You will cover basic computer operating principles, file management, the using the Internet, along with an introduction to word processors, spreadsheets, and database programs.

BCIS 1160 WINDOWS (4)

This course prepares students to develop the skills needed to deploy and manage Windows. Students will learn how to manage and troubleshoot Windows 10 devices in a secure network environment. Students will also learn to run multiple operating systems using client Hyper-V. Microsoft Intune will be utilized to teach students to manage Windows 10 mobile and desktop devices in a cloud-based environment. Out-of-class computer work is required.

BCIS 1215 INTRODUCTION TO MS EXCEL (1)

Introduction to the electronic spreadsheet, specifically how to use, design, and edit spreadsheets for use in a variety of personal and business applications.

BCIS 1220 INTRODUCTION TO MS WORD (1)

A brief overview of the word processing application package, Microsoft Word. You will learn to create basic documents, such as letters and memos. You will be provided with the basic knowledge as well as hands-on experience to allow you to become computer literate in Word.

BCIS 1230 INTRODUCTION TO MS POWERPOINT (1)

Introduction to the electronic presentation, specifically

how to use, design, and edit presentation graphics for use in a variety of personal and business applications.

BCIS 1610 INTERMEDIATE COMPUTING (4)

This course is a continuation of BCIS 1115 Introduction to Computers. This is the second course in a series of three that prepare the student to become Microsoft Office User Specialist (MOUS) certified. Word processing, spreadsheet, database, and presentations software are continued with intermediate skills being obtained. Out-of-class computer work is required. Prerequisite: BCIS 1115.

BCIS 2120 DESKTOP PUBLISHING (4)

This course utilizes a variety of software packages to produce reports, brochures, advertisements, correspondence and newsletters. Various software packages are used such as Microsoft Office Publisher and Adobe InDesign CS Suite.

BCIS 2150 ADVANCED COMPUTING (4)

This course is a continuation of BCIS 1610 Intermediate Computing. This is the third course in a series of three that prepare the student to become Microsoft Office User Specialist (MOUS) certified. Wordprocessing, spreadsheet, database, and presentations software are continued with advance skills being obtained. Out-of-class computer work is required. Prerequisite: BCIS 1610.

BCIS 2217 MS EXCEL (4)

This course provides an in-depth study of Microsoft Excel spreadsheet software.

BCIS 2220 MS WORD (4)

Covers the commands of Microsoft Word by using step-by-step applications; provides a working knowledge of the basic and intermediate capabilities of Microsoft Word on an IBM compatible.

BCIS 2230 MS POWERPOINT (4)

Microsoft PowerPoint is a complete presentation graphics software program that produces a professional looking presentation. PowerPoint enables informal presentations in a small conference room using overhead transparencies.

Business Finance

BFIN 2140 PERSONAL FINANCE (4)

Introduces tools and techniques of personal financial management. Includes budgeting, credit, insurance, personal income tax, and retirement/estate financial planning.

Business Law

BLAW 2110 BUSINESS LAW I (3)

Survey of the legal environment of business and common legal principles including: the sources of law, dispute resolution and the U.S. court systems, administrative law, tort law, contract law, agency and employment law, business structure and governance, ethics and corporate social responsibility. Explores sources of liability and presents strategies to minimize legal risk.

Economics (ECON)

ECON 1110 SURVEY OF ECONOMICS (3)

This course will develop students' economics literacy and teaches students how economics relates to the everyday life of individuals, businesses and society in general. The course will also introduce students to the roles different levels of governments play in influencing the economy. At the conclusion of the course, students will be able to identify economic causes for various political and social problems at national and international levels, and have a better understanding of everyday economic issues that are reported in media and public forums.

ECON 2110 MACROECONOMIC PRINCIPLES (3)

Macroeconomics is the study of national and global economies. Topics include output, unemployment and inflation; and how they are affected by financial systems, fiscal and monetary policies. Prerequisite: MATH 101. (ECON 2113 - Area IV)

ECON 2120 MICROECONOMIC PRINCIPLES (3)

This course will provide a broad overview of microeconomics. Microeconomics is the study of

issues specific to households, firms, or industries with an emphasis on the role of markets. Topics discussed will include household and firm behavior, demand and supply, government intervention, market structures, and the efficient allocation of resources.
(ECON 2123 - Area IV)

ECON 2210 INTERNATIONAL ECONOMICS (3)

This course explores the prominent forces and core concepts of international economics and the relationships of nations and economic policy. It offers fresh perspectives on major world events of the last 40 years and recent economic milestones, such as the European Economic Community and the economic transformation of Russia and Eastern Europe.

Entrepreneurship (ENTR)

ENTR 2110 SMALL BUSINESS MANAGEMENT (3)

This course is designed to acquaint the student with the opportunities encountered in the management and operations of a small business enterprise.

ENTR 2996 TOPICS IN ENTREPRENEURSHIP (1-3)

This course is related to a special topic in the field of business. The topic will be identified in the course schedule.

Management (MGMT)

MGMT 2110 PRINCIPLES OF MANAGEMENT (3)

An introduction to the basic theory of management including the functions of planning, organizing, staffing, leading, and controlling; while considering management's ethical and social responsibilities.

MGT 201 BUSINESS MANAGEMENT (3)

Topics in this course include the market survey to determine demand, factors of location, financing, legal forms, purchasing and inventory control, compilation of financial statements, budgeting and cash flow control, marketing and merchandising, pricing and promotion, business risk and insurance, the use of computers in business, and the business plan.

Prerequisites: ACCT 111 and MGT 113.

MGT 213 HUMAN RESOURCE MANAGEMENT (3)

This course focuses on the principles, policies, and practices of human resources planning, job analysis and design, recruitment, selection, training and development, employee and labor relations, compensation, and occupational health and safety in organizations.
Prerequisite: MATH 2110.

MGT 253 BUSINESS POLICY (3)

This capstone course explores the operations of various organizations. An emphasis is placed on the integration and formulation of the major functional areas within an organization. The case method is used to provide practical experience in evaluating, analyzing, and solving organizational problems. Prerequisite: Sophomore Standing; BUSA 1110, MGMT 2110, ACCT 2120, BLAW 2110, BUSA 2110 and ECON 2110 or ECON 2120 (Corequisite).

Marketing (MKTG)

MKTG 1210 ADVERTISING (3)

A survey of currently available advertising media. A psychological approach to consumer persuasion; applied techniques in media selection, layout mechanics, production methods, and campaign structures.

MKTG 2110 PRINCIPLES OF MARKETING (3)

Survey of modern marketing concepts and practices focusing on the marketing mix: product, pricing, promotion, and distribution strategies. Topics include; the marketing environment, consumer behavior, marketing research, target marketing, and the ethical and social responsibilities of marketers.

MKTG 2210 AGRICULTURAL MARKETING (3)

This course explores the principles of marketing agricultural products and commodities. Instruction in the techniques of marketing services provided to agriculture related fields is also provided in this course.

Development, analysis and decision-making associated with marketing of agricultural products and services are studied.

BUS 100 PRINCIPLES OF KEYBOARDING (3)

This course is recommended for students with no previous instruction in typing. Instruction includes alphabetic and numeric keyboard fingering, as well as the use of proofreading marks. Emphasis is placed on speed building using specialized computer software.

BUS 120 APPLIED BUSINESS ETHICS (3)

This course will provide tools useful in thinking through the countless ethical dilemmas faced in the workplace. Through real-world business examples, students will evaluate ethical situations and express solutions.

BUS 212 ADVANCED KEYBOARDING (3)

This course is recommended for students with previous typing experience. Students in this course will develop speed and accuracy as well as practice in the use of mailable business letters, advanced tables, business forms, reports and memorandums. Emphasis is placed on increasing speed and accuracy. Prerequisite: BUS 100

Chemistry (CHEM)

CHEM 1215C GENERAL CHEMISTRY I LECTURE AND LABORATORY FOR STEM MAJORS (4)

This course covers descriptive and theoretical chemistry. Prerequisite: MATH 101 or MATH 1130 with a grade of "C" or better, or an appropriate score on the Mathematics Placement Assessment Test. (Physics 1114 - Area III)

CHEM 1216 GENERAL CHEMISTRY (4)

This course explores all the realms of basic chemistry. Students will examine and explore such topics as the periodic table, the structure of atoms and molecules, chemical properties, chemical reactions, chemical equations, bonding, chemical equilibrium and scientific laboratory procedures. Laboratory exercises are included. Prerequisite: MATH 101 or MATH 1130 with a grade of "C" or better, or an appropriate score on the Mathematics Placement Assessment Test. (CHEM 1114 - Area III)

CHEM 1225C GENERAL CHEMISTRY II

LECTURE AND LABORATORY FOR STEM MAJORS (4)

This course is a continuation of CHEM 111 and emphasizes the quantitative aspects of chemical behavior.

Completion of the two-course sequence fulfills the General Education requirement of the College of Arts and Sciences. To succeed in this course, daily work on practice problems must be done. Exams will test both conceptual understanding as well as quantitative manipulations. Practice will build the required critical thinking and problem solving skills required on the exams. Prerequisite: CHEM 1215C with a grade of "C" or better, or consent of the instructor. (CHEM 1224 - Area III)

Communications

COMM 1130 PUBLIC SPEAKING (3)

This course introduces the theory and fundamental principles of public speaking, emphasizing audience analysis, reasoning, the use of evidence, and effective delivery. Students will study principles of communication theory and rhetoric and apply them in the analysis, preparation and presentation of speeches, including informative, persuasive, and impromptu speeches. (COMM1113 - Area I)

COMM 1150 INTRODUCTION TO MASS COMMUNICATION (3)

This course introduces students to the history, models, theories, concepts, and terminology of mass communication, focusing on various media and professions. The course will enable students to develop media literacy skills to interpret mass communication and understand the effects of media on society and their lives.

COMM 2120 INTERPERSONAL COMMUNICATION (3)

This course provides an introduction to the study of interpersonal communication. Students will examine the application of interpersonal communication in personal and professional relationships. (COMM1213 -

Area I)

COM 134 INTRODUCTION TO JOURNALISM (3)

This course is a practical introduction to journalism which emphasizes journalistic conventions as well as gathering and writing news for the print and broadcast media. Students will learn proven, as well as new, and less conventional, journalistic techniques and writing styles.

COM 190 INTERNSHIP IN JOURNALISM (3)

This course offers three credits in a supervised work program. The first-year student is employed in an approved journalism occupation. Students will be supervised and rated by the instructor. Students will have one-on-one consultations with the instructor and/or employer.

Computer Information Systems

CIS 100 COMPUTERS FOR BEGINNERS (3)

Students who have never been exposed to a computer often choose this course. This course is designed to introduce students to the computer and to let them get comfortable with the equipment. Students learn the basics of Windows and keyboarding and are given a brief tour of word processing software. This course may be nontransferable.

CIS 104 INTRODUCTION TO THE INTERNET (4)

This course will introduce students to the World Wide Web (www) and inform them of the advantages and disadvantages of accessing the Internet. Students will learn how to do searches on the web and how to use a browser. Finally, the students will be shown how to make their own home page. Out-of-class computer work is required.

CIS 106 BASIC PROGRAMMING (4)

Students are provided with a comprehensive understanding of the Visual BASIC programming language as used with the microcomputer. Proficiency is developed as student's code, test, and debug several Visual BASIC programs in the interactive and batch

modes. In addition to learning graphics, students will deal with files and array processing. Out-of-class computer work is required. Prerequisite: BCIS 1115.

CIS 107 DATABASE APPLICATIONS (4)

Students are provided with a working knowledge of a popular database package. They will learn to create a database, do sorts, and create reports. Students will also learn to create queries and to understand the techniques used in modifying the database. Out-of-class computer work is required.

CIS 120 COMPUTER FINANCE (4)

Students are provided with a working knowledge of a popular financial packages. Students will learn to create accounts registers. Reporting techniques that add assist the student in tracking finances will be discussed. Students will learn how to use a financial package for both home and business. Out-of-class computer work is required.

CIS 121 METHODS OF GRAPHIC DESIGN (3)

Students will gain a working knowledge of the elements and principles of two-dimensional (2-D) design with which to develop a vocabulary of design and visual thinking skills. The creation of art forms historical and contemporary, as well as technical approaches regarding material use and methods for thinking creatively will be explored.

CIS 123 DIGITAL MEDIA I (3)

Students will learn the Macintosh operating system (Mac OS) and will learn and use the Adobe Bridge, Photoshop and Illustrator. Students will learn the Photoshop workspace and Photoshop basics that will include: making selections, painting and retouching as well as creating good images. Students will also learn Adobe Illustrator essentials such as vector shape creation, how to use layers, add color and work with the drawing tool. Students will gain an understanding of the contemporary graphic design industry and projects will be created by students to solve graphic design related problems using an understanding of the basic elements and principles of design.

CIS 125 INTRODUCTION TO ILLUSTRATOR (4)

In this course the student will learn to apply the basics of print, multimedia, and online graphics. Students will learn

about how to design custom graphics. Students will learn multimedia concepts through hands on activities. Out-of-class computer work will be required. Student should have a basic knowledge of the Windows operating system.

CIS 129 MOODLE ORIENTATION (1)

Students are provided with a working knowledge of the Web courses. Students in this class learn to utilize the terms used in Web course in order to allow successful completion of the Mesalands Community College Internet classes. Students also learn how to use the Web instruction to submit homework, use the class discussion board and send email within Web courses. Out-of-class computer work is required.

CIS 131 FUNDAMENTALS OF COMPUTERS (1)

This course is designed to provide an introduction to computers and information processing for students desiring to learn what a computer is, how a computer functions, and how a computer is controlled. Word processing, spreadsheet, and presentations software are introduced. Out-of-class computer work is encouraged.

CIS 132 BASICS OF WINDOWS (1)

This course provides a brief overview of the Windows operating system. Students will learn basic Windows commands which will enable them to maneuver easily within a Windows operating environment. This course is designed to provide students with basic knowledge, as well as hands-on experience to allow students to become computer literate in Windows.

CIS 135 BASICS OF INTERNET I (1)

This course provides a basic overview of the Internet and the World Wide Web (WWW). Students will learn the basics of the Internet. The advantages and disadvantages of using the Internet for business and personal reasons will also be explored. This course is designed to provide students with basic knowledge as well as hands-on experience to allow students to become computer literate in using the Internet as a resource.

CIS 136 INTERNET BASICS II (1)

This course provides a basic overview of the Internet and the World Wide Web (WWW). Students will gain additional insight on the workings of the Internet. This course is designed to provide students with basic

knowledge as well as hands-on experience to allow students to become computer literate in using the Internet as a resource. Prerequisite: CIS 135.

CIS 137 BASICS OF WORDPERFECT (1)

This course provides a brief overview of the word processing application package, WordPerfect. Students will learn to create basic documents such as letters and memos. This course is designed to provide students with basic knowledge as well as hands-on experience to allow students to become computer literate in WordPerfect.

CIS 139 QUICKBOOKS PRO (1)

This course is designed for students who are computer literate, but are not familiar with the proper business application of QuickBooks Pro. Students will be involved in activities that provide opportunity for the basic understanding and use of QuickBooks Pro. A sample business will be used as a demonstration model, and then students will input actual business data in all areas required to meet their business needs.

CIS 140 QUICKEN (1)

This course provides a brief overview of the financial accounting application package, Quicken. Students will learn the basics of bookkeeping and financial reporting in a computerized environment. This course is designed to provide students with basic knowledge as well as hands-on experience to allow students to become computer literate in Quicken.

CIS 141 BASICS OF DATABASE (1)

This course provides a brief overview of the database application package. Students will learn the basics of creating a database, performing sorts, and creating reports. This course is designed to provide students with basic knowledge as well as hands-on experience to allow students to become computer literate in database applications.

CIS 142 BASICS OF DESKTOP PUBLISHING (1)

In this course, students will learn to use several of the leading desktop publishing software packages. Students will learn how to set up templates, do layouts and work with a variety of fonts and styles in order to prepare documents that are copy ready. Students will also learn to place graphics and wrap text around the graphics.

Out-of-class computer work may be required.

CIS 144 BASICS OF OUTLOOK (1)

This course provides a brief overview of the Microsoft Outlook. Students will learn to work and manage with e-mail, work and manage calendar appointments, manage contacts, keep journal entries, and manage folders. This course is designed to provide students with basic knowledge as well as hands-on experience to allow students to become computer literate in Microsoft Outlook.

CIS 145 BASICS OF PHOTOSHOP (1)

This course provides a brief overview of the Photoshop application. Students will learn to create and manipulate basic images. This course is designed to provide students with basic knowledge as well as hands-on experience to allow students to understand Photoshop's basic tools.

CIS 146 BASIC OF PAGEMAKER (1)

In this course the student will learn the basic tools and uses of PageMaker. Creation of single page and multi-page documents, placement of art, type manipulation and the use of color will be addressed. Out-of-class computer work will be required.

CIS 147 BASICS OF COMPUTER DRAWING (1)

In this course the student will learn to use FreeHand as a graphic image creation and manipulation tool. Students will learn about the various tools and features of FreeHand and how to create original artistic images using the computer with this software. Students will learn how to work with type and apply special effects to type. Out-of-class computer work will be required.

CIS 148 BASICS OF WEB DESIGN (1)

In this course the student will learn the basics of Web design. The student will be given the terminology necessary to understand the components that make up an effective Web Site. Student examples give the student a real world look at Web Design.

CIS 150 INTRODUCTION TO DIGITAL PHOTOGRAPHY (3)

In this course, the student will learn about the use of digital photographic equipment and its relationship to computer image manipulation.

Fundamental photographic techniques showing how to successfully capture images will be demonstrated and comparisons of different types of digital cameras and their unique nomenclature will be discussed.

CIS 153 DIGITAL MEDIA II (3)

Students will continue to use the Macintosh Operating System in order to learn essential skills in Adobe InDesign such as using guides, character and paragraph styles, working with graphics and text as well as creating and using master pages in order to design documents that have a professional appearance. Students will also learn to create documents that are correctly preflighted and press-ready. Prerequisites: ARTS 1520 or CIS 123.

CIS 155 INTRODUCTION TO PHOTOSHOP (4)

In this course the student will learn to use Photoshop as an image creation and manipulation tool. Students will learn about the Photoshop tools, menus and palettes and how to employ these features in the manipulation of images. Students will also learn how to create original artistic images using the computer with this software. Students will learn how to work with type and apply special effects to type. Out-of-class computer work will be required.

CIS 202 ADVANCED WORD PROCESSING (4)

Students are provided with a working knowledge of a popular word processing package. Students will create documents and learn several techniques that can be used to enhance a document's appearance. A variety of applications will be taught to allow the students to get the most out of the word processor. Out-of-class computer work is required.

CIS 203 C PROGRAMMING (4)

Students are introduced to the capabilities and potentials of the C language. C allows students to program a wide variety of tasks, since C can do both applications programming and system programming. Students will study the uses in the applications programming area. Out-of-class computer work is required. Prerequisite: CIS101

CIS 206 HISTORY OF VIDEO GAMES

AND INTERACTIVE MEDIA (3)

Students will investigate the medium of video games, the history of video games, the present industry landscape, and possible future developments in technology, design, industry organization and the cultural role of games. The central question that serves as a guideline throughout the course is the extent to which, and what, how we play says something about society.

CIS 210 GRAPHICS APPLICATIONS (4)

Students are provided with a working knowledge of a graphics package. Students in this class learn to create a variety of charts and templates, and to develop slide shows. Students also learn how to import graphics and develop a presentation in a variety of styles. Out-of-class computer work is required.

CIS 212 GRAPHIC COMMUNICATION I (3)

Students will learn to design and produce press-ready projects appropriate for a particular clientele. Students will learn to identify and design for a specific target market based on research done using demographics and by studying 'demo groups'. Students will complete projects making style and design decisions based on this research. Students will use the Macintosh operating system and any or all of the programs in the Adobe Creative Suite (Photoshop, Illustrator and InDesign) to complete projects. Prerequisite: ART/CIS 153

CIS 213 GRAPHIC COMMUNICATION II (3)

Students will learn to design and produce a comprehensive 'brand identity' that will be used to complete several graphic applications to promote a solution to an issue of global importance. Students will learn to identify and understand cultural norms other than their own through research and study of other cultures. Students will also complete an extensive portfolio of their work in order to prepare for future employment or for continuing education. Students will use the Macintosh operating system and any or all of the programs in the Adobe Creative Suite (Photoshop, Illustrator and InDesign) to complete projects. Prerequisite: ART/CIS 212.

CIS 216 DIGITAL PHOTOGRAPHY AND THE

DIGITAL DARKROOM (3)

Students will gain a working understanding of the equipment and materials used in digital photography, how to create digital images and how to 'develop' and print digital images. Students will also learn studio lighting techniques as well as how to shoot with ambient or available light. Students will learn how to 'see' better photographs in order to produce and print better photographs.

CIS 221 DATABASE PROGRAMMING (4)

Students will learn to develop an application by using 4GL programming techniques. Students will develop forms, menus, and general applications that allow the use of the database tables in a simpler form. Out-of-class computer work is required. Prerequisite: CIS 107.

CIS 226 BASIC WEB DESIGN (3)

Students will use the Macintosh computer to employ knowledge from previous courses in order to use the Adobe Bridge, Photoshop, and Illustrator to create graphics and images for web pages. Students will learn industry-standard web design software to set up a new web site, add text and images with CSS (cascading style sheets) and learn how to manage, optimize and maintain the site. Prerequisites: ART 103 and ART 135 or BCIS 1120 and CIS 135 (or instructor consent).

CIS 245 INTERMEDIATE PHOTOSHOP (4)

In this course the student will learn to use the most recent version of Photoshop as an image creation and manipulation tool. Students will learn about images, how to manipulate images using Photoshop's special tools and palettes and how to create artistic images using the computer with this software. Students will learn how Photoshop has become a text creation and manipulation application as well. Creative techniques commonly used in the graphics industry will be practiced. Out-of-class computer work will be required.

CIS 250 COMPUTER AIDED DRAFTING

(4)

Students will learn to design and produce a comprehensive 'brand identity' that will be used to complete several graphic applications to promote a solution to an issue of global importance. Students will learn to identify and understand cultural norms other than their own through research and study of other cultures. Students will also complete an extensive portfolio of their work in order to prepare for future employment or for continuing education. Students will use the Macintosh operating system and any or all of the programs in the Adobe Creative Suite (Photoshop, Illustrator and InDesign) to complete projects. Prerequisite: ART/CIS 212.

CIS 295 STUDENT PROJECT (4)

Students will be assigned a task that will encompass all of the courses taken in their chosen course of study. The task will be determined by a CIS faculty member. Arrangements for this course must be made with the CIS faculty member prior to enrollment. Out-of-class computer work is required.

Computer Science

CS 102 ANDROID MOBILE APP DEVELOPMENT (3)

Students will be given overview of different mobile platforms and their development environments with a focus on android mobile applications. Design concepts, creation, and publication of mobile app applications will be stressed. Students will be given hands-on programming projects that will later be tested on Android devices.

CS 115 INTRODUCTION TO JAVASCRIPT (3)

This course will provide a general introduction to JavaScript programming. This course will employ a hands-on approach for the beginning programmer to develop Web applications. Step-by-step approach using exercises that illustrate the concepts being explained.

CS 118 INTERNET PROGRAMMING (3)

In this course, the student will learn the general concept of website design. Emphasis will be placed on web content management systems and web authoring. The student will be guided through using a step-by-step

approach with examples and detail instructions on each task to be completed. Student will design websites based on real world applications.

CS 140 INTRODUCTION TO COMPUTER FORENSICS (3)

Introduction to Computer Forensics presents methods to properly conduct a computer forensics investigation beginning with a discussion of ethics, while mapping to the objectives of the International Association of Computer Investigative Specialists (IACIS) certification. Students should have a working knowledge of hardware and operating systems to maximize their success on projects and exercises throughout the course.

CS 150 OPERATING SYSTEMS (3)

Throughout this course the student will learn the general concept of operating systems, including how system-level software works with your computer hardware. Detail descriptions of individual operating systems--DOS, Windows and various configurations, MAC OS, and Unix will be covered throughout the course. The student will also learn how each of these systems works with specific hardware components.

CS 160 INTRODUCTION TO HTML (3)

Throughout this course the student will learn the general concept of HTML, including how the software works with your computer hardware. Students will receive Web development techniques along with basic web design.

CS 165 IOS APPLICATION PROGRAMMING (3)

Students will be given overview of the iOS mobile platform. Design concepts, creation, and publication of mobile app applications for iOS devices will be stressed. Understanding of current programming issues in the iOS environment will be stressed. Students will be given hands-on programming mobile application projects.

CS 170 INTRODUCTION TO TELECOMMUNICATIONS (3)

Introduction to Telecommunications opens the doors to the world of telecom by presenting the first layer of the Open Standards Interconnection (OSI) model for communication networks—the physical layer. The program provides an historical perspective on communications technology, from smoke signals to the

latest wireless devices. Students learn the basics and the history of Data, Voice, and Video systems.

CS 171 INTRODUCTION TO NETWORK CABLING - FIBER (4)

This course is designed to provide students with the knowledge and skills necessary to become entry-level technicians in the Network Cabling Industry. The focus of this course is on the following: basics of cable termination using two of the industry standards, (ST and SC connectors), testing and troubleshooting using sophisticated electronic equipment, perform a mechanical splice and the theory of fiber optics and calculate a system loss budget.

CS 172 INTRODUCTION TO NETWORK CABLING - COPPER (4)

This course is designed to provide students with the knowledge and skills necessary to become entry-level technicians in the Network Cabling industry. The focus of the course is on the following: tool use and construction techniques; the characteristics of various industry standards; and troubleshooting and repair. This course has an accompanying Computer Enhanced Training (CET) CD-ROM that provides color images, videos, slide shows, and interactive “self-checking” for troubleshooting activities.

CS 180 INTRODUCTION TO GAME PROGRAMMING (4)

In this course the student will learn to use basics of programming. Beginning game programming concepts will be introduced. Students will learn about how to create functional computer games. Students will learn programming and gaming concepts through hands on activities. Out-of-class computer work will be required.

CS 205 JAVA PROGRAMMING (4)

Throughout this course the student will learn the general concept of Java programming. The student will be guided as a beginning programmer in developing applications and applets using the Java programming language. A step-by-step approach will be used in exercises that illustrate the concepts being explained, reinforcing the students' understanding and retention of the material.

CS 210 NETWORK SECURITY (3)

Throughout this course the student will learn the general

concepts and importance of network security. The course uses hand-on projects, case projects, and lectures to provide the student with the necessary information to develop a network security plan that can be used in a real-world environment.

CS 215 JAVA SCRIPT (3)

Throughout this course the student will learn the general concept of JavaScript programming. This course is designed to provide a guide for the beginning programmer to develop Web applications. A step-by-step approach using exercises that illustrate the concepts being explained, reinforcing understanding and retention of the materials presented.

CS 216 WEB PROGRAMMING (3)

In this course, the student will learn the general concept of Web programming. The student will be guided through using a step-by-step approach with examples and detail instructions on each task to be completed. Student examples give the student a real world look at Web programming.

CS 217 ACTIVE DIRECTORY (3)

This course prepares a network professional to work in medium to very large computing environments that use the Windows network operating system. With the increased demand for network professionals who can design flexible, usable directory service implementations that can properly advertise and support all necessary network services, as well as the users and groups who make use of them.

CS 220 CISCO NETWORKING (3)

Throughout this course the student will learn the general concept of Cisco networking. The student will be guided through using a step-by-step approach with examples and detail instructions on each task to be completed. Student examples give the student a real world look at Cisco networking used in LANs and WANs routing and switching.

CS 225 WEB SITE DESIGN (3)

Throughout this course the student will learn the general concept of Web Site Design. The student will be guided through a step-by-step approach with examples and detailed instructions on each task to be completed. Student examples give the student a real-world look at Web Site design..

CS 230 INTRODUCTION TO TCP/IP

(3)

Throughout this course the student will learn the general concept of TCP/IP protocol. The student will be guided through using a step-by-step approach with examples and detail instructions on each task to be completed. Student examples give the student a real world look at TCP/IP communication architecture used in LANs and WANs on which they are implemented. Prerequisite: CS 150.

CS 231 INTRODUCTION TO PROXY SERVER (3)

Throughout this course the student will learn the general concept of Proxy Server. The student will receive extensive working knowledge of the Microsoft Proxy Server product and prepare the student to take the MACE Certification test for Proxy Server. The course uses hands-on projects, case projects, and lectures to provide the student with the necessary information to pass the test and work with Proxy Server in the real-world environment.

CS 234 INTRODUCTION TO CLOUD COMPUTING (3)

In this course, the student will learn the general concept of Cloud Computing. Emphasis will be placed on web content management systems and web authoring. The student will be guided through using a step-by-step approach with examples and detail instructions on each task to be completed. Student will design websites based on real world applications.

CS 235 DATABASE WEB DESIGN (3)

Throughout this course the student will learn the general concept of Database driven Web Design. This course enables individuals to create Web sites that can display, insert, update, and delete data from a database. It provides foundational material on Web concepts, relational database principles, SQL, and HTML. Prerequisite: CS 225.

CS 240 INTRODUCTION TO SUPPORT SERVICES (4)

This course is designed to provide an introduction to computer support services for students desiring to learn what is necessary to provide user support. Students will learn the importance of needs

assessment, training users, and troubleshooting. Students are also introduced to computer-related occupations and learn the importance of computer support and how to apply to the solution of business and related problems in a modern society.

CS 245 SYSTEMS ANALYSIS AND DESIGN (4)

This course is designed to provide the tools necessary to design and implement computer systems. Students will learn the importance of System Development Life Cycle, Program Life Cycle, and analysis of designs. Students are also introduced to computer-related occupations and learn the importance of network and how to apply to the solution of business and related problems in a modern society. Prerequisite: BCIS 1115.

CS 246 INTRODUCTION TO NETWORKING (4)

This course is designed to provide the tools necessary to design and implement computer systems. Students will learn the importance of System Development Life Cycle, Program Life Cycle, and analysis of designs. Students are also introduced to computer-related occupations and learn the importance of network and how to apply to the solution of business and related problems in a modern society.

CS 247 INTRODUCTION TO COMPUTER MAINTENANCE (4)

Throughout this course the student will begin to learn the technical skills necessary to become an A+ certified technician. These skills will be learned through a series of hands-on lab exercises and review questions designed to teach and improve the PC configuration and troubleshooting skills which are necessary to function as a PC support or help desk technician.

CS 256 NETWORKING II (4)

This course is a continuation of CS 246. The use of hands-on approach and its orientation to real-world situations and problem solving allows students to expand their knowledge of networking. Windows and Novell are the operating systems that will be used throughout the course. Prerequisite: CS 246.

CS 257 COMPUTER MAINTENANCE II (4)

This course is a continuation of CS 247. Throughout this course the student will continue to learn all of the technical skills necessary to become an A+ certified technician.

These skills will be learned through a series of hands-on lab exercises and review questions designed to teach and improve the PC configuration and troubleshooting skills which are necessary to function as a PC support or help desk technician. Prerequisite: CS 247.

CS 265 INTRODUCTION TO 3D

MODELING (4)

Throughout this course the student will learn the general concept of 3D solid modeling using SolidWorks. Students will receive an overview of SolidWorks commands, techniques associated with 3D solid modeling. This course will include modeling of mechanical component parts to apply commands and concepts. The processes learned will include part model creation, assembly model creation, part drawing documents, and other modeling features and commands related to 3-D solid modeling. The student will be guided through using a step-by-step approach with examples and detailed instructions on each task to be completed.

CS 270 COMPUTER 3-D ANIMATION (0)

Throughout this course the student will learn the general concept of 3D animation and design. The student will be guided through using a step-by-step approach with examples and detailed instructions on each task to be completed.

CS 282 INTRODUCTION TO MULTI-MEDIA (4)

In this course the student will learn to use the basics of page layout, vector graphics, photo editing, document management, web design, animation, and file management. Students will learn about how to create custom graphics. Students will learn multimedia concepts through hands on activities. Out-of-class computer work will be required.

CS 290 INTERNSHIP IN APPLIED COMPUTER SCIENCE (3)

This course offers 3 credits in a supervised work program. The first-year student is employed in an approved computer occupation. Students will be supervised and rated by the employer and instructor. Students will meet in a weekly class and/or report on a variety of films, readings, or seminars. Prerequisite: Consent of the instructor.

CS 295 STUDENT PROJECT (4)

Students will be assigned a task that will encompass all of the courses taken in their chosen course of study. The task will be determined by a CS faculty member. Arrangements for this course must be made with the CS faculty member prior to enrollment. Out-of-class computer work is required. Requirement: Must be taken in a student's final semester.

Criminal Justice (CJUS)

CJUS 1110 INTRODUCTION TO CRIMINAL JUSTICE (3)

This course provides an overall exploration of the historical development and structure of the United States criminal justice system, with emphasis on how the varied components of the justice system intertwine to protect and preserve individual rights. The course covers critical analysis of criminal justice processes and the ethical, legal, and political factors affecting the exercise of discretion by criminal justice professionals.

CJUS 1510 HANDGUN TRAINING (1)

The Handgun Training course is designed to prepare students to obtain a license to carry a concealed handgun.

This course covers the safe handling and storage of handguns, as well as strategies for home and personal safety. This training course incorporates classroom instruction with the live firing of a handgun as required by the New Mexico statutory course requirements.

CJUS 2140 CRIMINAL INVESTIGATIONS (3)

This course introduces criminal investigations within the various local, state, and federal law enforcement agencies. Emphasis is given to the theory, techniques, aids, technology, collection, and preservation procedures, which insure the evidentiary integrity. Courtroom evidentiary procedures and techniques will be introduced.

CJUS 1120 CRIMINAL LAW (3)

This course covers basic principles of substantive criminal law including elements of crimes against

persons, property, public order, public morality, defenses to crimes, and parties to crime. Prerequisite: CJUS 1110.

Defensive Driving

TDC 114 DEFENSIVE DRIVING (.5)

This course focuses on collision prevention through hazard recognition and application of collision-avoidance techniques. In addition, the course addresses common driving violations that result in collisions and how to change driving habits to eliminate moving violations. Throughout the course, participants learn how to recognize both potential and immediate hazards, how to avoid collisions in a variety of driving conditions and how to choose safe and legal driving behaviors. The emphasis is on identifying and choosing safe and legal behind-the-wheel behaviors and actions.

Diesel Technology

DMT 151 SHOP ESSENTIALS (2)

This course is a comprehensive study of Basic Shop Safety. Topics include the study of Personal Safety, Work Area Safety, Shop Tool Safety, Hazardous Materials, Handling of Hazardous Waste, Shop Records, Hand Tools, Power Tools, Measuring Tools, Manufacturers' Service Publications and Fasteners. This will be a Corequisite course for any new incoming students taking any Diesel courses.

DMT 155 ENGINE FUNDAMENTALS

(3)

This course is a comprehensive study of engine fundamentals. Topics include the study of engine terminology, the four-stroke cycle, the two-stroke cycle, the Otto cycle, engine systems and circuits, A history of the modern Diesel engine, definitions and formulas common to the reciprocating engine, power calculations, and assessment of needed power for specific applications.

DMT 156 DIESEL ENGINE REBUILD

(3)

This course is a comprehensive study of diesel engine rebuild. Topics include the study of engine power train components, engine feedback assembly, engine housing components, engine lubrication systems, engine cooling

systems, engine breathing, engine retarders, engine removal, disassembly, cleaning, inspection and reassembly guidelines. Students will become familiar with the different features of Detroit, Cummins, and Caterpillar engines.

DMT 157 HYDRAULIC FUNDAMENTALS

(3)

This course is a comprehensive study of Hydraulic Fundamentals. Topics include the study of hydraulic reservoirs, lines, fittings, and couplers, seals, fluids and filters, pumps, valves, cylinders, motors, accessories, hydraulic circuits, diagrams and symbols, general and preventative maintenance, diagnosis and testing.

DMT 165 MECHANICAL FUEL SYSTEMS

(3)

This course is a comprehensive study of mechanical fuel Systems. Topics include the study of chemistry and combustion, diesel fuel systems, hydro mechanical injection principles, hydraulic injector nozzles, port-helix metering injection pumps, detroit diesel mechanical unit injection, caterpillar mechanical unit injection, Cummins PT, rotary distributor pumps, governors, alternate fuels, failure analysis, troubleshooting and diagnoses strategies.

DMT 166 ELECTRICITY FUNDAMENTALS

(3)

This course is a comprehensive study of Electricity Fundamentals. Topics include the study of Atomic Structure and Electron Movement, Conductors and Insulators, Current Flow, Magnetism, Electromagnetism, Electrical Current Characteristics and Sources of Electricity, Electrical Circuits and Ohm's Law, Capacitance, Coils, Transformers and Solenoids, Semiconductors, Diodes, Transistors, Testing Semiconductors, Photonic Devices, Using Electronic Signals, Battery Operating Principles, and Battery Ratings.

DMT 167 DIESEL ELECTRONICS (3)

This course is a comprehensive study of Electronic Fuel Systems. Topics include the study of Bosch Electronic Distributor and Common Rail Systems, Mack Trucks and V-MAC , Detroit Diesel Electronic Controls (DDEC) Caterpillar ADEM and Volvo VECTRO EUI Systems, Cummins CELECT, Bosch EUP on V-MAC III-E-Tech and Mercedes-Benz, Caterpillar and International Trucks

HEUI, Cummins HPI-TP, Cummins Accumulator Pump System and Emissions.

DMT 168 APPLIED DIESEL ELECTRICITY AND ELECTRONICS (3)

Lab experiences in Applied Diesel Electricity and Electronics correspond to material covered in DMT 166 and DMT 167. This course includes analysis and repair of areas and systems and involves use of proper methods, tools, specifications and equipment covered in DMT 166. And this course also includes the proper use of tools, scanners, and other equipment to diagnose the computers, sensors and actuators, along with the repair and adjustment of the computerized, fuel, timing, and emission systems.

DMT 169 ELECTRONIC FUEL SYSTEMS (3)

This course is a comprehensive study of Electronic Fuel Systems. Topics include the study of Bosch Electronic Distributor and Common Rail Systems, Mack Trucks and V-MAC , Detroit Diesel Electronic Controls (DDEC) Caterpillar ADEM and Volvo VECTRO EUI Systems, Cummins CELECT, Bosch EUP on V-MAC III-E-Tech and Mercedes-Benz, Caterpillar and International Trucks HEUI, Cummins HPI-TP, Cummins Accumulator Pump System and Emissions.

DMT 190 INTERNSHIP IN DIESEL TECHNOLOGY (3)

Students in this course receive on-the-job experience in a dealership, national chain service facility or independent repair facility under the direct supervision of the program instructor. Students utilize the skills and knowledge acquired in the previous year. Students will be able to base future employment decisions on the experience received. Note: Students who complete two full semesters of automotive courses and are not employed, may sign up for this course and take it as a Capstone Lab or a combination of each.

DMT 275 HYDRAULIC BRAKE SYSTEMS (3)

This course is a comprehensive study of Hydraulic Brake Systems. Topics include the study of hydraulic brake fluid, air-over-hydraulic brake systems, hydraulic brake service procedures, hydraulic antilock braking systems, and hydraulic brake system components; master cylinders, hydraulic drum brakes, servo and non-servo types.

DMT 276 AIR BRAKE SYSTEMS (3)

This course is a comprehensive study of Air Brake Systems. Topics include the study of air supply circuit, primary circuit, secondary circuit, dash control and the parking/emergency circuit, trailer circuit, foundation brakes, air brake system components, brake system balance, maintenance and safety, assessment, adjustment, troubleshooting brake systems, and brake certification, inspection, and testing.

DMT 277 SUSPENSION SYSTEMS (3)

This course is a comprehensive study of Suspension Systems. Topics include the study of leaf spring-type suspensions, equalizing beam suspensions, torsion bar suspensions, air spring suspensions, spring suspension system servicing, equalizer beam suspension system servicing, air suspension system servicing, suspension alignment, cab air suspensions, driver air suspended seats, and ride analysis.

DMT 278 PREVENTATIVE MAINTENANCE (3)

This course is a comprehensive study of Preventative Maintenance. Topics include the study of setting up a preventative maintenance program, out-of-service or deadlining a vehicle, preventive maintenance scheduling and record-keeping that conforms to federal inspection regulations, lubricants for the engine, transmission, axle, chassis, trailer, and winterizing.

DMT 280 HEATING AND AIR CONDITIONING (3)

This course is a comprehensive study of Heating and Air conditioning. Topics include the study of basic principles of refrigeration, refrigerant, the refrigeration cycle, air conditioning systems components, safety precautions, performance testing and equipment for A/C system, A/C service procedures, common A/C problems, cab ventilating and heating systems, liquid cooled heating system, and electronically managed climate control.

DMT 285 DIESEL PERFORMANCE AND DIAGNOSTICS (3)

This course is a comprehensive study of Diesel Performance and Diagnostics. This is a course designed to expose students to a variety of service and repair procedures that represents work typically found in today's service centers. A strong emphasis will be placed on diagnostic and troubleshooting procedures.

DMT 286 MANUAL TRANSMISSIONS

(3)

This course is a comprehensive study of Manual Transmissions. Topics include the study of standard transmissions, gearing, gears, gear train configurations, shift mechanism, lever components, countershaft transmissions, transfer cases, power takeoff unit, transmission servicing, lubrication, PM inspections, removal, overhaul, air shift system, clutches, function, basic components, troubleshooting, maintenance and servicing.

DMT 290 INTERNSHIP IN APPLIED DIESEL TECHNOLOGY (3)

DMT 290 is a continuation of DMT 190 Internship in Diesel Technology. This course provides students with additional hands-on experience under the direction of the program instructor. Prerequisite: DMT 190

Education

Early Childhood Education (ECED)

ECED 1110 CHILD GROWTH DEVELOPMENT, AND LEARNING (3)

This basic course in the growth, development, and learning of young children, prenatal through age eight, provides students with the theoretical foundation for becoming competent early childhood professionals. The course includes knowledge of how young children grow, develop and learn. Major theories of child development are integrated with all domains of development, including biological-physical, social, cultural, emotional, cognitive and language. The adult's role in supporting each child's growth, development and learning is emphasized.

ECED 1115 HEALTH, SAFETY, AND NUTRITION (2)

This course provides information related to standards and practices that promote children's physical and mental well-being sound nutritional practices, and maintenance of safe learning environments. It includes information for developing sound health and safety management procedures for indoor and outdoor learning environments for young children. The course examines the many scheduling factors that are important for children's total development, healthy nutrition, physical activity, and rest.

ECED 1120 GUIDING YOUNG

CHILDREN (3)

This course explores various theories of child guidance and the practical applications of each. It provides developmentally appropriate methods for guiding children and effective strategies and suggestions for facilitating positive social interactions. Strategies for preventing challenging behaviors through the use of environment, routines and schedule will be presented. Emphasis is placed on helping children become self-responsible, competent, independent, and cooperative learners and including families as part of the guidance approach.

ECED 1125 ASSESSMENT OF CHILDREN AND EVALUATION OF PROGRAMS (3)

This basic course familiarizes students with a variety of culturally appropriate assessment methods and instruments, including systematic observation of typically and non-typically developing children. The course addresses the development and use of formative and summative assessment and evaluation instruments to ensure comprehensive quality of the total environment for children, families, and the community. Students will develop skills for evaluating the assessment process and involving other teachers, professionals and families in the process.

ECED 1130 FAMILY AND COMMUNITY COLLABORATION (3)

This beginning course examines the involvement of families and communities from diverse cultural and linguistic backgrounds in early childhood programs. Ways to establish collaborative relationships with families in early childhood settings is discussed. Families' goals and desires for their children will be supported through culturally responsive strategies.

ECED 2110 PROFESSIONALISM (2)

This course provides a broad-based orientation to the field of early care and education. Early childhood history, philosophy, ethics and advocacy are introduced. Basic principles of early childhood systems are explored. Multiple perspectives on early care and education are introduced. Professional responsibilities such as cultural responsiveness and reflective practice are examined.

ECED 2115 INTRODUCTION TO LANGUAGE, LITERACY, AND LITERACY (3)

This course is designed to prepare early childhood professionals for promoting children's emergent literacy and reading development. Through a developmental approach, the course addresses ways in which early childhood professionals can foster young children's oral language development, phonemic awareness, and literacy problem solving skills, fluency, vocabulary, and comprehension. . This course provides the foundation for early childhood professionals to become knowledgeable about literacy development in young children. Instructional approaches and theory-based and research based strategies to support the emergent literacy and reading skills of native speakers and English language learners will be presented.

ECED 2120 CURRICULUM DEVELOPMENT THROUGH PLAY BIRTH THROUGH AGE 4 (PREK) (3)

The beginning curriculum course places play at the center of curriculum in developmentally appropriate early childhood programs. It addresses content that is relevant for children birth through age four in developmentally and culturally sensitive ways of integrating content into teaching and learning experiences. Information on adapting content areas to meet the needs of children with special needs and the development of IFSPs is included. Curriculum development in all areas, including literacy, numeracy, the arts, health, science, social skills, and adaptive learning for children, birth through age four, is emphasized.

ECED 2121 CURRICULUM DEVELOPMENT THROUGH PLAY BIRTH THROUGH AGE 4 (PREK) PRACTICUM (2)

The beginning practicum course is a co-requisite with the course Curriculum Development through Play – Birth through Age 4. The field based component of this course will provide experiences that address curriculum content that is relevant for children birth through age four in developmentally and culturally sensitive ways of integrating content into teaching and learning experiences. Information on adapting content areas to meet the needs of children with special needs and the development of IFSPs is included. Curriculum development in all areas, including literacy, numeracy, the arts, health, science, social

skills, and adaptive learning for children, birth through age four, is emphasized

ECED 2130 CURRICULUM DEVELOPMENT AND IMPLEMENTATION AGE 3 (PREK) THROUGH GRADE 3 (3)

The curriculum course focuses on developmentally appropriate curriculum content in early childhood programs, age 3 through third grade. Development and implementation of curriculum in all content areas, including literacy, numeracy, the arts, health and emotional wellness, science, motor and social skills, is emphasized.

Information on adapting content areas to meet the needs of children with special needs and the development of IEP's is included.

ECED 2131 CURRICULUM DEVELOPMENT AND IMPLEMENTATION AGE 3 (PREK) THROUGH GRADE 3 PRACTICUM (2)

The beginning practicum course is a co-requisite with the course Curriculum Development and Implementation:

Age 3 through Grade 3. The field based component of this course will provide experiences that address developmentally appropriate curriculum content in early childhood programs, age 3 through third grade. Development and implementation of curriculum in all content areas, including literacy, numeracy, the arts, health and emotional wellness, science, motor and social skills is emphasized. Information on adapting content areas to meet the needs of children with special needs and the development of IEPs is included.

Education (EDUC)

EDUC 1120 INTRODUCTION TO EDUCATION (3)

Introduction to the historical, philosophical, sociological foundations of education, current trends, and issues in education; especially as it relates to a multicultural environment. Students will use those foundations to develop effective strategies related to problems, issues and responsibilities in the field of education.

EDUC 1190 INTRODUCTION TO EDUCATION PRACTICUM

(3)

Applies understanding of the field of teacher education in a field-based 45-hour practicum in a K-12 schoolbased setting in general or special education. Students will observe and apply understanding of educational theory to classroom practice. Students must successfully pass a background check to complete the course requirements.

EDUC 2110 FOUNDATIONS OF EDUCATION (3)

This course is designed to assist future teachers in gaining an understanding of the purposes and framework of schools. Topics covered in this course include, but are not limited to ethics, legal issues, and leadership relative to education. The dynamic role of teachers is also explored.

EDUC 2320 EDUCATIONAL COMMUNITY (3)

This course is designed to prepare future teachers with the necessary classroom management skills needed for student success by providing instruction on classroom processes, techniques, and procedures. Systematic motivational strategies for a diverse student body are covered. The impact on student learning due to emotional, social, physical, and cognitive development from birth through adolescence is explored. Also covered are educational strategies to assist students with exceptional needs.

EDUC 2325 STUDENT OUTCOMES ASSESSMENT (3)

This course is designed to help future teachers plan and prepare effective instruction based on measurable and useful assessments. The assessments will fulfill district and state standards while meeting the needs of students.

Instruction on the use of assessment data to assist teachers in designing curriculum and improving teaching methodologies is also covered. This course also provides instruction on teaching reading and diagnosing reading skills at the elementary and secondary levels.

EDUC 2330 THE EFFECTIVE CLASSROOM (3)

This course is designed to prepare future teachers with the necessary classroom management skills needed for student success by providing instruction on classroom processes, techniques, and procedures. Systematic motivational strategies for a diverse student body are covered. The impact on student learning due to emotional, social, physical, and cognitive development from birth through adolescence is explored. Also covered are educational strategies to assist students with exceptional needs.

EDUC 2335 READING ASSESSMENT (3)

This course is designed to address the requirements of Public Schools Act, 2001 N.M. Laws Ch. 261, amending §22-2-8.7 N.M.S.A. 1978 and 2001 N.M. Laws Ch. 299, amending §22-2-2 N.M.S.A. 1978. The intent of this course is to prepare future teachers to recognize and assess reading difficulties across content areas. Topics covered in this course include, word identification skills and strategies, reading comprehension skills, and vocabulary skills

EDUC 2340 MULTICULTURAL EDUCATION (3)

This course offers a study of educational trends, issues, and teaching methods and strategies necessary to teach respect and tolerance in diverse settings.

English (ENGL)

ENGL 1110 COMPOSITION I (3)

In this course, students will read, write, and think about a variety of issues and texts. They will develop reading and writing skills that will help with the writing required in their fields of study and other personal and professional contexts. Students will learn to analyze rhetorical situations in terms of audience, contexts, purpose, mediums, and technologies and apply this knowledge to their reading and writing. They will also gain an understanding of how writing and other modes of communication work together for rhetorical purposes. Students will learn to analyze the rhetorical context of any writing task and compose with purpose, audience, and genre in mind. Students will reflect on their own writing processes, learn to workshop drafts with other writers, and practice techniques for writing, revising, and editing. Prerequisite: ENG 100 or appropriate score on the

Success/ Assessment Placement Test. (ENGL 1110 - Area I)

ENGL 1120 COMPOSITION II (3)

In this course, students will explore argument in multiple genres. Research and writing practices emphasize summary, analysis, evaluation, and integration of secondary sources. Students will analyze rhetorical situations in terms of audience, contexts, purpose, mediums, and technologies and apply this knowledge to their reading, writing, and research. Students will sharpen their understanding of how writing and other modes of com. Prerequisite: ENGL 1110. (ENGL 1123 - Area I)

ENGL 1410 INTRODUCTION TO LITERATURE (3)

In this course, students will examine a variety of literary genres, including fiction, poetry, and drama. Students will identify common literary elements in each genre, understanding how specific elements influence meaning. For English majors and non-majors. (ENGL 2213 - Area V)

ENGL 2120 INTERMEDIATE COMPOSITION (3)

This course builds upon and refines the writing skills acquired in previous writing courses, with a focus on nonfiction prose. Research, composition, exposition and presentation abilities will be practiced and developed. Through analysis and revision, students will develop strategies to improve the versatility and impact of their writing. Course topics and emphases may vary by section.

ENGL 2130 ADVANCED COMPOSITION(3)

This course is for students who are striving for fluency, maturity, clarity and significance in their writing. It is an intermediate writing course that builds on and refines writing skills acquired in previous courses. It focuses on non-fiction writing for the professions, business, science, technical fields, academe and/or the popular press. Short works of master writers are studied for ideas, style and structure. Prerequisite: ENGL 1120.

ENGL 2210 PROFESSIONAL AND TECHNICAL COMMUNICATION (3)

Professional and Technical Communication will introduce students to the different types of documents and correspondence that they will create in their professional careers. This course emphasizes the importance of

audience, document design, and the use of technology in designing, developing, and delivering documents. This course will provide students with experience in professional correspondence and communicating technical information to a non-technical audience. Prerequisite: ENGL 1110. (ENGL 2113 - Area I)

ENGL 2310 INTRODUCTION TO CREATIVE WRITING (3)

This course will introduce students to the basic elements of creative writing, including short fiction, poetry, and creative nonfiction. Students will read and study published works as models, but the focus of this “workshop” course is on students revising and reflecting on their own writing. Throughout this course, students will be expected to read poetry, fiction, and non-fiction closely, and analyze the craft features employed. They will be expected to write frequently in each of these genres.

ENGL 2350 INTRODUCTION TO DRAMA (3)

This course introduces students to drama as a literary form. Students will identify elements of the dramatic form, examining how the choices made by the playwright, director, actors, set designer, costume designer, and even the audience influence the performance. Students will also examine different types of plays, such as comedy, historical, and tragedy, and the influence of the historical, social, and political setting.

ENGL 2360 INTRODUCTION TO POETRY (3)

This course is an introduction to reading and thinking about poetry. This course will involve the reading and analysis of poems from a variety of eras. By examining poetic features of tone, speaker, situation, setting, language, sounds, internal structure, and external form, students will build a foundation for complex critical thinking about what poems can do. All poems are born out of particular literary and cultural contexts, which will also be discussed as part of this course’s inquiries into the nature of poetry and poetic form.

ENGL 2370 INTRODUCTION TO THE NOVEL (3)

This course is an introduction to the study of long

fiction, such as novels and novellas, focusing on the use of critical approaches to analyze the ways that narrative is created. Students will read and analyze a diverse range of texts that may include varying time periods, nationalities, regions, genders, and ethnicity.

ENGL 2380 INTRODUCTION TO SHORT FICTION (3)

This course is an introduction to the study of short fiction, focusing on the use of critical approaches to analyze the ways that narrative is created. Students will read and analyze a diverse range of texts that may include varying time periods, nationalities, regions, genders, and ethnicity.

ENGL 2520 FILM AS LITERATURE (3)

This is an introductory film class involving analysis, discussion and writing about films. Emphasis is placed on the relationship between films and the literary works from which they are made. Students explore the literary, cultural and technical influences of film. The course provides students with an opportunity to view and critique selected films with attention to composition and final impact.

ENGL 2550 INTRODUCTION TO SOUTHWEST LITERATURE

(3)

New Mexico and the greater Southwest has long been a contested region. Through novels, poetry, and drama, the course focuses on the social, historical, and political issues that create complex portrayals of the beauty, borders, and violence that give the Southwest such a unique history. By the end of the course, students will have a broader appreciation for the many voices that make up literature from the American Southwest. (ENG 2713 - Area V).

ENGL 2580 SCIENCE FICTION (3)

Close reading and analysis of major science fiction works. Explores science fiction as cultural metaphor and modern myth. Prerequisite: ENGL 1110.

ENGL 2610 AMERICAN LITERATURE I (3)

This course surveys American literature from the colonial period to the mid-nineteenth century. This course provides students with the contexts

and documents necessary to understand the origins of American Literature and the aesthetic, cultural, and ideological debates central to early American culture.

ENGL 2630 BRITISH LITERATURE I (3)

This course offers a study of British literature from its origins in Old English to the 18th century. This survey covers specific literary works—essays, short stories, novels, poems, and plays—as well as the social, cultural, and intellectual currents that influenced the literature. (ENGL 2413 - Area V)

ENGL 2650 WORLD LITERATURE I (3)

In this course, students will read representative world masterpieces from ancient, medieval, and Renaissance literature. Students will broaden their understanding of literature and their knowledge of other cultures through exploration of how literature represents individuals, ideas and customs of world cultures. The course focuses strongly on examining the ways literature and culture intersect and define each other.

ENGL 2680 WOMEN'S LITERATURE (3)

Surveys women writers from the English-speaking tradition. Includes various genres that represent the diversity of women's experiences.

ENGL 2993 WRITING WORKSHOP(1-3 CR)

Various topics are presented as announced in the current course schedule. The course may be repeated for credit under different subtitles. Topics may include workshops in creative writing (fiction, poetry or drama), preparation for publication, or grammar, syntax and diagramming. Specific topics will be announced in the current course schedule.

ENGL 2994 EXPERIENTIAL LEARNING PORTFOLIO (3)

The primary objective of the course is to identify, articulate, and document Experiential learning experiences in the form of a portfolio that can be evaluated for possible college credit towards a degree. Students may be granted credit for Work experience, and coursework or training completed outside the traditional College setting, so long as such work or experience covers similar material and concepts.

ENGL 2996 TOPICS IN ENGLISH (1-3)

Emphasis on a literary and/or writing subject chosen for the semester. Repeatable for a unlimited credit under different subtitles..

ENGL 2997 INDEPENDENT STUDY IN ENGLISH (3)

This course provides the student an opportunity to pursue an independent study or research project concerning a topic of interest. The topic will be chosen by the student in consultation with a faculty member. Subjects that could be covered by an independent study can either be extensions of topics covered by other classes or include subjects that are not covered by the current curriculum. Prerequisites: ENGL 1110 and ENGL 1120 and consent of instructor. can either be extensions of topics covered by other classes or include subjects that are not covered by the current curriculum. Prerequisites: ENGL 1110 and ENGL 1120 and consent of instructor.

ENGL 2998 INTERNSHIP IN ENGLISH (6)

This course provides the second-year student an opportunity to gain practical experience doing supervised writing for a word-oriented operation. Possible locations for writing internships could include a newspaper office, a radio station, a print shop, an advertising agency, a museum, federal and state agencies, or private companies. Students will identify learning objectives at the beginning of the internship to be evaluated at the end of the semester. Prerequisites: ENGL 1110 and ENGL 1120 and consent of instructor.

ENGL 2999 CAPSTONE PORTFOLIO COURSE (1)

This capstone course will utilize the college's rubrics to assess the general education competency (writing, oral communication, information technology, critical thinking, scientific and mathematical reasoning) attainment using student artifacts. A portfolio reflecting best practices will be submitted to a faculty committee for review and evaluation. This course must be completed during the student's last semester prior to graduation.

ENG 105 WRITING IN THE WORKPLACE (1)

This course prepares students from all disciplines to be effective communicators in their chosen professions. Students learn to write and prepare documents, including memos, letters, and recommendations. Revision strategies will be addressed to assure accurate deliverables in the workplace. The class will focus on modern communicative needs required by the extensive use of technology in the workplace. Prerequisite: English 102 is strongly recommended.

ENG 201 TYPES OF LITERATURE (3)

This course is an introduction to one of six literary genres. Subtitles may vary by semesters. The class will focus on either A. Short Story, B. Novel, C. Drama, D. Poetry, E. Science Fiction or F. Wild, Wild, West. The course may be repeated for credit under different subtitles announced in the current course schedule.

ENG 201F TYPES OF LITERATURE: THE WILD, WILD WEST (3)

An introduction to the literature, history, and myth of the American frontier. Beginning around the time of the Civil War, the American West became a symbol of freedom and adventure. From early 'dime' novels that glorified the deeds of gunslingers and desperados to modern western books and movies, we will look at the romanticized image of the West as compared to the often harsh reality. Topics will include cultural encounters between Native Americans and settlers, life on the frontier, the impact of the railroads, the role of the West in creating American characters and icons, and, of course, lawmen and gunfighters, outlaws and gamblers, saloon gals and trail hands, and the bad men of the Badlands.

ENG 268A WORKSHOP IN ENGLISH: GRANT WRITING (3)

Various topics are presented as announced in the current course schedule. The course may be repeated for credit under different subtitles. Topics may include workshops in creative writing (fiction, poetry or drama), preparation for publication, or grammar, syntax and diagramming. Specific topics will be announced in the current course schedule.

ENG 268B WORKSHOP IN ENGLISH: CREATIVE WRITING (3)

Various topics are presented as announced in the current course schedule. The course may be repeated for credit under different subtitles. Topics may include workshops in creative writing (fiction, poetry or drama), preparation for publication, or grammar, syntax and diagramming. Specific topics will be announced in the current course schedule.

ENG 268C WORKSHOP IN ENGLISH: PORTFOLIO DESIGN (3)

Topics may include workshops in creative writing (fiction, poetry or drama), preparation for publication, or grammar, syntax and diagramming. Specific topics will be announced in the current course schedule.

The course may be repeated for credit under different subtitles. Prerequisite: ENG102.

ESL 099 BEGINNING ENGLISH AS A SECOND LANGUAGE (3)

This course is a beginning level course designed to develop good listening skills and standard pronunciation of English. This course is intended for students whose first language is not English. Beginning English as a Second Language is a prerequisite to ESL 100, Intermediate English as a Second Language.

ESL 100 INTERMEDIATE ENGLISH AS A SECOND LANGUAGE (3)

Intermediate English as a Second Language is specifically for students whose predominant language is not English. This course is designed to develop greater English communication and grammar skills, including listening, speaking, reading, and writing. Prerequisite: ESL 099.

Farrier Science (FASC)

FASC 1110 HORSESHOEING THEORY I (3)

This course is classroom oriented and designed to present the principles of horseshoeing. A variety of horseshoeing principles are studied (hoof balance, foot biomechanics, and physiological shoeing), as well as gaits of horses. A study of types and uses of horses is also reviewed. It is recommended that FASC 1110 be taken concurrently with ANSC 1510.

FASC 1120 HORSESHOEING THEORY II (3)

This course is designed to present more advanced principles of horseshoeing. Shoeing to change gait faults and the principles of functional hoof balance are covered. Specialty shoeing needs of horses are also presented along with the principles of shoeing various types and uses of horses. Prerequisite: FASC 1110.

FASC 1210L HORSESHOEING LABORATORY I (3)

This course presents the principles and techniques of shoeing sound horses. From trimming feet to shaping

shoes to nailing shoes on, students gain experience by working on horses. This laboratory-oriented class takes a field approach with students trimming and shoeing horses at the college and at local ranches. It is recommended that this course be taken concurrently with FASC 1110.

FASC 1220L HORSESHOEING LAB II (3)

This course covers advanced horseshoeing principles and techniques. Shoeing to correct conformational and gait faults is practiced and learned through hands-on experience. Assessment of horses in various gaits and shoeing to change functional hoof balance are addressed. It is recommended that this course be taken concurrently with FASC 1120. Prerequisite: FASC 1210L.

FASC 1310L BLACKSMITHING I (3)

This course presents to student's concepts, skills and techniques utilized in blacksmithing and forging. Techniques in forging tools and horseshoes with several toe and heel modifications are addressed in this laboratory-oriented class. Students will gain hands-on experience in this course as they learn the art of shaping shoes.

FASC 1320L BLACKSMITHING II (3)

This course presents advanced principles and techniques used in blacksmithing. Students forge a variety of projects to learn and enhance blacksmithing skills. The projects involve several advanced techniques that should help students forge tools, shoes, and specialty projects. These techniques are used to forge a variety of specialty shoes for horses. Prerequisite: FASC 1310L.

FASC 1710L SPECIALTY

HORSESHOEING (3)

This course is designed for students who are certificate seeking and do not wish to enroll in general education courses. This course will provide additional experience in horseshoeing through hands-on learning. This is a laboratory-oriented course providing students with additional time to practice their horseshoeing skills. Some forging techniques will be utilized in this course.

FASC 1996L SPECIAL TOPICS IN FARRIER SCIENCE (3)

This is an advanced special topics course for students who desire to gain additional laboratory time. This is a laboratory-oriented course allowing students extra time to practice techniques and build their skills in

horseshoeing. Horses will be worked on as available and some forging techniques will be utilized.

FASC 1998 INTERNSHIP IN FARRIER SCIENCE I(3)

This course is designed to provide on-the-job work experience. Students gain this experience by working under the direct supervision of a practicing Farrier. Exposure to technical skills, business management, and customer relations are realized in this course. The applied internship can be done Fall or Spring semester or during the Summer session.

FASC 2000 CERTIFICATION PREPARATION (2)

This course is designed to help students prepare for certification examinations of national associations. The written, forging and shoeing exams at each level will be covered according to the level the students are preparing for. This course will utilize both lecture and field approaches to preparation. Both full-time Farrier students and farriers in business would benefit from this course.

FASC 2230L FARRIER SCIENCE THERAPEUTICS (3)

This laboratory-oriented course is designed to provide students with the knowledge, skills, and techniques of trimming and shoeing horses with common pathological conditions, including laminitis and navicular syndrome. The assessment of lame horses and application of therapeutic shoes will be discussed, demonstrated, and practiced. It is recommended that this course be taken concurrently with FASC 2330L. Prerequisite: FASC 1210L.

FASC 2330L FARRIER CRAFTSMANSHIP THERAPEUTICS (3)

This laboratory-oriented course is designed to instruct students in the craftsmanship of forging therapeutic and pathological horseshoes for common lameness. From measuring the feet to choosing the material for construction in building the shoes, students will practice the processes used to make therapeutic horseshoes. This course should be taken concurrently with FASC 2230L. Prerequisite: FASC 1310L.

FASC 2530 LAMENESS PHYSIOLOGY (3)

This course is designed to present a comprehensive

approach to biomechanics, pathology, and common lameness of horses. Emphasis is placed on the limb, leg and foot. Dissections of the leg and foot will be conducted by students. Anyone with an interest in doing veterinary referral work should benefit from this class. Prerequisite: ANSC 1510.

FASC 2997 INDEPENDENT STUDY IN FARRIER SCIENCE (2)

This course is designed to give students experience in developing, conducting and writing a small research project. Special topics or problems related to horseshoeing will be considered for projects. Students should gain detailed insight into a topic that is of particular interest to them. The requirements for this course are completed on an arranged schedule.

FASC 2998 INTERNSHIP IN APPLIED FARRIER SCIENCE II (3)

This course is designed to provide on-the-job work experience and allow the student to apply skills and knowledge. Students gain this experience by working under the direct supervision of a practicing farrier. Application of technical skills, business management, and customer relations are realized in this course. The applied internship can be done Fall or Spring semester or during the Summer session.

FASC 2999L FARRIER SCIENCE CAPSTONE COURSE (4)

This course is designed to be a capstone course for Farrier Science, focusing on specialty and therapeutic work. Both shoeing and forging will be implemented into this laboratory-oriented course. Preparation for the American Farriers Association advanced certification exams will be a part of this course. Prerequisite: FASC 1220L.

FAS 106 HOOF CARE FOR HORSES (3)

This course is a basic overview of hoof care designed for horse owners. Topics include hoof management involving nutrition, foot care manners, trimming & shoeing, horseshoe selection, and nail selection.

Arts (ARTS)

ARTS 1860 BEGINNING SPUR MAKING (3)

This course is designed for introductory level spur

making including the overlay of silver. This course will enable

students to gain the skills necessary in fabricating the band, shank, hangers and rowels required in making a pair

of spurs. Students will also acquire an understanding of the theory and practice of metal cutting, shaping, welding, and finishing of one pair of spurs. Lab will consist of design and completion of a pair of spurs.

ARTS 1863 SILVERSMITHING FOR THE ARTIST (3)

This laboratory-oriented course is designed for either farriers or artistic blacksmiths who have a desire to enhance their forging skills. Students are allowed to select and practice the forging or blacksmithing skill of their own choosing.

ARTS 1810 JEWELRY AND SMALL METAL

CONSTRUCTION I (3)

This course introduces the basic techniques, materials, and tools traditionally used in the creation of jewelry and/or small-scale sculptural objects. Prerequisite: ARTS 1863 and FAS 109.

FAS 108 ENGRAVING I (3)

This course is designed for introductory level engraving on precious and non-precious metals. This course consists of understanding the theory and practice of hand and power assist engraving on spurs and jewelry.

FAS 109 BIT AND SPUR MAKING (3)

This course is designed for intermediate level spur making including the overlay and engraving of silver. This course consists of understanding the theory and practice metal cutting, shaping and welding in order to build one pair of spurs. Lab will consist of design and completion of a pair of spurs.

FAS 207 JEWELRY MAKING (3)

This course is designed for an introduction to basic jewelry making. The students will learn to make several types of jewelry in the Western style including, rings, bracelets, pendants and earrings. Students will learn

to use a jeweler's saw to cut out pieces from precious metals, soldering and joining techniques, basic stone setting, metal forming, polishing and engraving of precious metals. Lab will consist of design and completion of one or more pieces of jewelry.

FAS 208 ARTISTIC SILVERSMITHING – ENGRAVING (3)

This course is designed for mid-level engraving on precious and non-precious metals. This course consists of understanding the more advanced methods of hand and power assist engraving on spurs and jewelry. Prerequisite: FAS 108.

FAS 262 ADVANCED BIT DESIGN (0)

This course is designed for entry level bit making. The following topics will be covered-leverage, purchase, leverage-purchase ratio, Mullen and mouthpiece design and placement. Students will also be introduced to tig welding techniques. By course end, students will have made one Bayer's style leverage bit, one loose jaw leverage bit, and one snaffle bit.

FAS 264 ADVANCED ENGRAVING TECHNIQUES (3)

This course is designed for advanced level engraving on precious and non-precious metals. This course consists of understanding the more advanced methods of hand and power assist engraving on spurs and jewelry. Prerequisite: FAS 208

FAS 294 SPECIAL TOPICS: FABRICATION (3)

This course is a comprehensive study in fabricating of the many ornamental trapping used in western culture. Fabricating rope borders, three piece buckle sets, advanced Conchos and other such items will be taught. Students will also gain knowledge in tig welding and high temperature solders and the subsequent cleanup of fabricated items. Upon course completion, students will have gained all the necessary skills in the fabrication of all high-end ornaments and devices used and worn by individuals in western culture.

Foreign Language

FR 101 INTRODUCTION TO FRENCH CULTURE

AND LANGUAGE I (4)

This first French language course is designed to immerse students in French culture via a romantic comedy filmed in France. This course also contains photos, cartoons, graphics, film clips, interviews, and excerpts from television and advertising drawn from the French-speaking world.

FR 102 INTRODUCTION TO FRENCH CULTURE

AND LANGUAGE II (3)

This second French language course is a continuation of Introduction to French Culture and Language I and is designed to immerse students in French culture via a romantic comedy filmed in France. This course also contains photos, cartoons, graphics, film clips, interviews, and excerpts from television and advertising drawn from the French -speaking world.

Spanish (SPAN)

SPAN 100 INTRODUCTION TO SPANISH (3)

This course is designed for individuals with no experience in Spanish. It introduces the student to the sound system, pronunciation, and basic vocabulary necessary for communication in Spanish. This course is recommended for students who have had no previous exposure to Spanish or to the study of another foreign language.

SPAN 1110 SPANISH I (3)

Designed for students with little exposure to Spanish, this course develops basic listening, speaking, reading, and writing skills and basic intercultural competence in interpretive, interpersonal and presentational modes of communication at the Novice Level of proficiency based on ACTFL guidelines. During this course, students perform better and stronger in the Novice-Mid level while some abilities emerge in the Novice High range. This is an introductory course aimed at helping the student to communicate in Spanish in everyday familiar situations via recognition and production of practiced or memorized words, phrases, and simple sentences. (SPAN 1110- AreaV)

SPAN 1120 SPANISH II (3)

Designed for students with some degree of exposure to Spanish in high school and/or at home, this course continues to develop basic listening, speaking, reading, and writing skills and basic intercultural competence in

interpretive, interpersonal and presentational modes of communication based at the Novice High Level of proficiency based on ACTFL guidelines, although a few abilities may emerge in the Intermediate Low Level. Students in this course communicate in Spanish in familiar topics using a variety of words, phrases, simple sentences and questions that have been highly practiced and memorized. Prerequisite: SPAN 1110.

(SPAN 1110 - AreaV)

SPAN 2110 SPANISH III (3)

This course is based on the integration of learning outcomes across Interpersonal, Interpretive, and Presentational Modes of Communication at the Intermediate Low Level of proficiency based on ACTFL guidelines. Students accomplish real-world communicative tasks in culturally appropriate ways as they gain familiarity with the target culture(s). This is an intermediate course aimed at helping the student to communicate in Spanish on familiar topics about self, others and everyday life at the same time that they recognize and handle short social interactions in interactions in everyday situations by asking and answering a variety of questions. Prerequisite: SPAN 1120.

SPAN 2120 SPANISH IV (3)

This course is based on the integration of learning outcomes across Interpersonal, Interpretive, and Presentational Modes of Communication at the Intermediate High Level of proficiency based on ACTFL guidelines. Students accomplish real-world communicative tasks in culturally appropriate ways as they gain familiarity with the target culture(s). This is an intermediate course aimed at helping the student to communicate in Spanish on familiar topics about self, others and everyday life at the same time that they recognize and handle short social interactions in interactions in everyday situations by asking and answering a variety of questions.. Prerequisite: SPAN 1120.

SPAN 293 SPECIAL TOPICS IN SPANISH (1-3)

This course varies in topics as selected by the instructor. The course may be repeated for credit as long as the topic differs. Topics will be as announced in the current course schedule. Prerequisites: SPAN 1110 and SPAN 1120 or consent of instructor.

Forensic Science

FOR 124 INTRODUCTION TO FORENSIC SCIENCE (4)

This course introduces the student to Forensic science as a practical application of science to matters of the law. In this class the student will study the basic techniques of forensic science, such as DNA fingerprinting, the classification of illicit drugs, the preservation of evidence, crime scene investigation and many other laboratory and field techniques such as the detection of art forgery, investigation of fire and explosions, and ballistic. Each subject is accompanied by practical exercises and lab work.

Geography (GEOG)

GEOG 1120 WORLD REGIONAL GEOGRAPHY (3)

Overview of the physical geography, natural resources, cultural landscapes, and current problems of the world's major regions. Students will also examine current events at a variety of geographic scales.

GEOG 1130 HUMAN GEOGRAPHY (1)

This course serves as an introduction to the study of human geography. Human geography examines the dynamic and often complex relationships that exist between people as members of particular cultural groups and the geographical "spaces" and "places" in which they exist over time and in the world today.

Geology (GEOL)

GEOL 1110 PHYSICAL GEOLOGY (4)

Physical Geology is an introduction to our dynamic Earth introducing students to the materials that make up Earth (rocks and minerals) and the processes that create and modify the features of our planet. The course will help students learn how mountains are formed, how volcanoes erupt, where earthquakes occur, and how water, wind, and ice can shape the landscape. Students will also develop a basic understanding of the ways humans have altered the planet including our impact on natural resources and global climate change. (GEOL 1160 - Area III)

GEOL 1120 ENVIRONMENTAL GEOLOGY

(4)

This course is a survey of environmental geology with an introduction to problems of pollution, population, human relations to the environment, resource use, geologic hazards and environmental problems. The course covers the major components of the Earth system, i.e. atmosphere, lithosphere, hydrosphere, and biosphere, and how they are related. Environmental Geology addresses the mechanisms that drive these Earth processes, how different parts of the Earth are connected, how matter and energy flow through our environment, and how humans fit into the environmental systems. Emphasis is placed on the use of the scientific method and the development of critical thinking skills in understanding environmental issues. Prerequisite: GEOL 1110 or consent of instructor.

GEOL 1122 INTRODUCTION TO ENVIRONMENTAL SCIENCE (4)

Introduction to Environmental Science presents an overview of Earth's environmental problems as a result of human interactions with the natural world and discusses possible solutions. The topics explored in this class include: environmental interrelationships, philosophical and economic issues, principles of ecology, sources and use of energy, impact of human activities on natural ecosystems, and the major types of pollution.

GEOL 1130 DINOSAURS AND THEIR WORLD (4)

Dinosaurs and Their World is a survey of the fossil record, evolution, paleobiology and extinction of dinosaurs, and the animals with which they shared the Earth.

GEOL 1140 GEOLOGICAL DISASTERS (4)

This course will incorporate an overview of the geological processes that result in natural disasters and the input humans have on the amplification or mitigation of these natural disasters. We will examine past catastrophes and discuss the probability of such disasters occurring again. Hazards investigated will include, but not be limited to earthquakes, volcanoes, tsunami, hurricanes, floods, landslides, and astronomical events such as meteor and comet collisions with Earth. We will investigate the data obtained from recent disasters and explore the costs in human and economic terms.

GEOL 1150 INTRODUCTION TO ROCKS AND MINERALS (1)

This course is an introduction to the characteristics and the formation of the three main types of rocks, the rockforming minerals, and important ore minerals. An outline of Plate Tectonics (Continental Drift) will give students the basis to understand how many of these rocks and minerals form. In laboratory exercises, students will gain practice in describing and identifying hand-specimens of the main types of rocks and minerals.

GEOL 1155 INTRODUCTION TO MUSEUM SCIENCE (4)

This course presents an overview of museum organization and function with a particular emphasis on natural history museums. Major themes will be the basic functions, organization and management of a museum, the main divisions of a museum and their functions, the collection, conservation and curation of natural history specimens and the theory and construction of exhibits.

GEOL 1160 INTRODUCTION TO FIELD PALEONTOLOGY (4)

This course introduces the basic field and laboratory techniques utilized in study of fossils (paleontology). Students gain extensive practical experience of collecting and processing fossils with an emphasis on vertebrate fossils. Laboratory and curatorial work will be conducted at the Mesalands Community College's Dinosaur Museum.

GEOL 1310 PALEONTOLOGY FIELD EXPEDITION (4)

This class is conducted in cooperation with the Cottonwood Gulch Foundation, Albuquerque, and designed for students between 15 and 19 in age. Students will live at a scientific base camp in the wilderness while excavating fossils and learning about ancient environments and their inhabitants. The course introduces the basic field techniques utilized in study of fossils (paleontology) and rocks (geology). Students will gain extensive practical experience of collecting and processing fossils, with an emphasis on vertebrate fossils. They will also engage in a variety of independent field and research projects, such as prospecting techniques for fossils, studying preservation of fossils, studying rocks and interpreting their formation, or constructing and interpreting maps.

GEOL 1320 PALEONTOLOGY FIELD DISCOVERY (4)

This course provides a week-long experience of excavating fossils and processing them in a museum. Student will prospect for and learn to excavate dinosaur-age vertebrates in the Quay County area. Basic laboratory methods and preparing field specimens will be studied in the Natural Science Laboratory at Mesalands Community College's Dinosaur Museum. Students will learn about the local rocks and age determination, and they will also study the major groups of fossil vertebrates found in this area.

GEOL 1330 PALEONTOLOGY FIELD EXPLORATION (4)

This course presents a seven-day overview of the basic field, laboratory and museum methods used in the study of fossils. Students will follow the whole process from searching for a fossil and excavating it from the ground, through cleaning and stabilizing it, to cataloging it in Mesalands Community College's Dinosaur Museum. Included are a trip to a site rich in dinosaur footprints, and hands-on experience in molding and casting fossils.

GEOL 1990 TRIASSIC VERTEBRATE PRACTICUM (1-4)

This course provides an introduction to excavating fossils and processing them in a laboratory setting. Student will prospect for and learn to excavate vertebrate fossils from the Upper Triassic in eastern New Mexico. Basic laboratory and preparation methods for field specimens will be practiced in the Natural Science Laboratories at Mesalands Community College's Dinosaur Museum. Students will explore aspects of the anatomy, systematics, evolutionary relationships, and paleobiology of the principal groups of Late Triassic vertebrates.

GEOL 1998 INTERNSHIP IN GEOLOGY (1-10)

This course provides the freshman student the opportunity to gain practical experience while working for a geologically oriented operation. Examples of possible locations for internships could include natural history museums, federal or state agencies or private companies. Students will identify learning objectives at the beginning of the internships that will be evaluated at the end of the semester. This class may be repeated for credit. Prerequisite: GEOL 1110 or consent of the

instructor.

GEOL 2110 HISTORICAL GEOLOGY (4)

This course reviews the major geological and biological processes and events over the Earth's 4.6-billion-year history. Students will learn about the formation of the Earth and its development through time including changes in the lithosphere, atmosphere, hydrosphere, and biosphere. The interrelationships between the physical aspects of Earth history and biological origins, evolution of species, and causes of extinctions will be explored. Prerequisites: GEOL 1110, GEOL 1150, or instructor consent. (GEOL 1214 - Area III)

GEOL 2130 INTRODUCTION TO METEOROLOGY (2)

Introduction to Earth's atmosphere and the dynamic world of weather as it happens. Working with current meteorological data delivered via the Internet and coordinated with learning investigations keyed to the current weather; and via study of select archives. Prerequisite: GEOL 1122, or GEOL 1110 (or equivalent college-level science course), or consent of instructor.

GEOL 2145 HISTORY OF LIFE (4)

This course presents an overview of the evolution and diversity of life on Earth. Students will study the main features of the evolution of the principal organisms on Earth (including plants, animals and microorganisms) and the evolution of ecosystems. Prerequisite: BIOL 1110C or GEOL 1110 or consent of the instructor.

GEOL 2155 THEORY AND PRAXIS OF MUSEUM SCIENCE (4)

This course presents a broad spectrum of theories and practices used by museum professionals. The major theme of the course is to introduce students to useful methods for care, preparation, and conservation of museum collections. The course also considers the importance of knowledge of federal and international laws that govern museums; professional ethics; the importance of collection management; exhibitions and interpretation; and museum curatorship. All topics include practical assignments conducted in conjunction with Mesalands Community College's Dinosaur Museum and Natural Sciences Laboratory.

GEOL 2210 GEOLOGY OF SOUTHWESTERN NEW MEXICO AND WESTERN TEXAS (4)

This course will introduce students to some of the basic elements of geology and vertebrate paleontology. Students will receive an orientation followed by a field trip through southwestern New Mexico and western Texas. Geological topics examined on the field trip will include Karst phenomena at Carlsbad Caverns, the structure, sedimentology and paleontology of a Permian reef complex (Guadalupe Mountains), Precambrian through Mesozoic sedimentology and stratigraphy of the El Paso area, an introduction into dinosaur tracks, the structure of an intrusion (Cerro de Cristo Rey) and maar volcanology at Kilbourne Hole. Prerequisite: GEOL 1110, GEOL 152 or consent of the instructor.

GEOL 2220 TRIASSIC VERTEBRATES FROM THE AMERICAN SOUTHWEST (4)

Students are introduced to the principal fossil vertebrate groups from the Late Triassic by means of original material and replicas plus scientific publications, and they will explore their anatomy, systematics, evolutionary relationships, and paleobiology. Students will also learn about age correlations of strata based on physical properties of rocks and based on fossils. The course may include field and museum excursions.

GEOL 2230 DINOSAURS OF COLORADO (4)

This course will introduce students to some of the basic elements of geology and dinosaur paleontology, in the classroom and on a four day trip through southwest Colorado. The field trip will include visits to dinosaur quarries, footprint sites, and paleontology museums.

GEOL 2240 DAWN OF THE AGE OF DINOSAURS – TRIASSIC GEOLOGY AND LIFE IN THE TEXAS PANHANDLE (4)

This course will introduce students to some of the basic elements of geology, stratigraphy, and vertebrate paleontology. Students will receive a pre-trip lecture/ orientation followed by a four day trip through east-central New Mexico and the Texas panhandle. The field trip will include visits to geological sites at Palo Duro Canyon State Park, several fossil quarries and an oil field in the Post

area, archeological sites, the Grace Museum (Abilene), and the Museum of Texas Tech University (Lubbock).

GEOL 2250 VOLCANOES AND DINOSAURS IN NORTHEASTERN NEW MEXICO AND

COLORADO (4)

This course will introduce students to some of the basic elements of geology and vertebrate paleontology. Students will receive an orientation followed by a field trip through northeastern New Mexico and southern Colorado. Geological and paleontological topics examined on the field trip will include morphology and volcanology of a cinder cone (Capulin Mountain), an introduction into dinosaur tracks and visits of mega footprint sites (Mosquero, Dinosaur Ridge), the K-T boundary of the Raton basin, and visits to paleontology and natural history museums in central Colorado.

GEOL 2260 GEOLOGY OF THE AMERICAN SOUTHWEST (4)

This course familiarizes the student with an overview of the geology of the southwestern United States. Students learn about the geological processes that led to the development of the American Southwest and also about the fossil record of this region.

GEOL 2910 RESEARCH IN NATURAL SCIENCES I (2)

The purpose of this course is to give students exposure to authentic laboratory environments and the practical application of the scientific method. Students will design and conduct a research project and present the results in a professional venue. Research topics may be selected from any area of STEM-H (Science, Technology, Engineering, Mathematics and Health). GEOL 2910 also includes study of scientific literature, applying the case study method in scientific research, practical use of software for research and presentation (Photoshop, PowerPoint, Excel), studying of topics relevant to the area of study, and practicing oral and written presentations.

GEOL 2920 RESEARCH IN NATURAL SCIENCES II (2)

GEOL 2920 is the second part of a research course

designed to give students exposure to authentic laboratory environments and the practical application of the scientific method. Students will continue to conduct and finalize a research project, prepare a written or oral presentation, and present the results in a professional venue. GEOL 2920 also includes basic statistics, study of topics integral or related to the area of study, application of computer programs relevant to the area of study and the medium of presentation, and practicing oral or written presentations. Prerequisite: GEOL 2910 or one laboratory science course, and consent of instructor.

GEOL 2991 DIRECTED STUDY IN GEOSCIENCE (1-4)

This course provides the student an opportunity to engage in a study of a subject not covered by the curriculum of the College or not offered during that semester. The subject will be decided by a student in consultation with a faculty member. Subjects that could be covered by a directed study could include any branch of the geosciences. Prerequisite: GEOL 1110 and GEOL 152.

GEOL 2997 INDEPENDENT STUDY IN GEOSCIENCE (1-4)

This course provides the student an opportunity to pursue an independent study or research project concerning a topic of interest. The topic will be chosen by the student in consultation with a faculty member. Subjects that could be covered by an independent study can either be extensions of topics covered by other classes or include subjects that are not covered by the current curriculum. Prerequisites: GEOL 1110 and GEOL 152, or consent of the instructor.

GEOL 2998 INTERNSHIP (1-10)

This course provides the sophomore student the opportunity to gain practical experience while working for a geologically-oriented operation. Examples of possible locations for internships could include natural history museums, federal or state agencies or private companies. Students will identify learning objectives at the beginning of the internship that will be evaluated at the end of the semester. This class may be repeated for credit. Prerequisites: GEOL 1110, GEOL 152, and one GEOL 200 level (excluding GEOL 2997 and GEOL 293).

GEOL 270 INVERTEBRATE PALEONTOLOGY (4)

This course covers the diversity and evolution of

invertebrate animals. Topics will include the origin, classification and diversity of invertebrates, evolution of the major groups and aspects of the paleoecology and taphonomy of invertebrates. Laboratory and field trips will emphasize local fossils. Prerequisite: GEOL 152.

GEOL 280 VERTEBRATE PALEONTOLOGY (4)

Vertebrate Paleontology presents an overview of the diversity and evolution of vertebrate animals. Students will cover the principal kinds of vertebrate fossils, the main features of the evolution of vertebrates and the principles of the paleoecology and taphonomy of vertebrate fossils. Prerequisite: GEOL152, or consent of instructor.

GEOL 285 TRACKING DINOSAURS (4)

Eastern New Mexico is rich in the fossil footprints from before the age of dinosaurs to after their demise. This course provides an overview of the study of ancient footprints and includes discussion of how to interpret animal tracks, and obtaining information about ancient ecologies from footprints. Prerequisite: GEOL 152.

GEOL 293 SPECIAL TOPICS IN GEOLOGY (4)

This course number will be used for geology topics that are not covered in the regular curriculum. Courses will be offered irregularly, based on need and interest, and may cover any area of geology including paleontology and museum science.

Health and Physical Education

Health Education (HLED)

HLED 2230 OBSERVATIONS IN HEALTH AND PHYSICAL EDUCATION

(1)

This course is designed to give the student the opportunity to experience the behind the scenes work of an instructor in a typical activity class as well as the actual instructing of the course so they can better understand teaching and learning in the Health and Physical Education setting. The Student will select an activity course in a

predetermined area of interest and assist the instructor with the responsibilities of that class.

Physical Education (PHED)

PHED 1110 AEROBICS: LOW IMPACT (1)

This course provides a practical application to low impact exercising. The emphasis is on injury prevention, health benefits, and weight control. Students will be introduced to rating fitness level and learn to follow routines that focus on arm work to more complicated steps requiring them to move across the floor. Students will be introduced to low-impact movements for developing natural grace and agility.

PHED 1110 AEROBICS : AEROBICS WORKOUT (1)

This course provides basic instruction in cardiovascular exercise utilizing the activity of step aerobics. This course is taught at a beginning level for individuals who have never participated in a step aerobics program.

PHED 1110 DANCE: COUNTRY & WESTERN DANCING (1)

This course illustrates the popular Country and Western Dances, including Country Line Dances. A step by step guide to the framework and the different type of Country dances is provided. The focus is not only on technique but in having fun while learning these dances.

PHED 1140 ZUMBA: ZUMBA I (0.5)

This course is designed to jump start students into Zumba®. Zumba classes feature exotic rhythms set to high-energy Latin and international beats. The Zumba® Program integrates some of the basic principles of aerobic, interval, and resistance training to maximize caloric output, cardiovascular benefits and total body toning. The cardio-based dance movements are easy-to-follow steps that include body sculpting, which targets areas such as gluteus, legs, arms, core, abdominals and the most important muscle in the body – the heart.

PHED 1140 ZUMBA: ZUMBA II (1)

This course is designed to introduce students to Zumba®. The Zumba® Program integrates some of the basic principles of aerobic, interval, and resistance training to

maximize caloric output, cardiovascular benefits and total body toning. The cardio-based dance movements are easy-to-follow steps that include body sculpting, which targets areas such as gluteus, legs, arms, core, abdominals and the most important muscle in the body – the heart.

PHED 1160 THE ART OF DANCING (1)

The Art of Dancing is a course for students who wish to learn to dance or to improve their dancing. Emphasis is on ballroom dancing with techniques for dancing the Fox Trot, Waltz, Tango, Rumba, La Conga, Samba Jitterbug and the Lindy Hop. Students will be introduced to ballroom etiquette, will understand the elements of leading and following, and will be able to tell what kind of dance the orchestra is playing.

PHED 1230 INDIVIDUAL SPORT: BEGINNING BOWLING (1)

This course acquaints the student with the lifetime sport of bowling. Instruction will focus on terminology, equipment selection, basic techniques and scorekeeping, as well as individual evaluation tips. Team competition will be introduced. Emphasis will be placed on having fun while bowling.

PHED 1230 INDIVIDUAL SPORT: BOXING (1)

This challenging, non-contact boxing course will cover basic boxing skills (stance and basic footwork, punches, combinations, defensive moves, etc.) as well as participation in general conditioning activities commonly performed by boxers.

PHED 1230 INDIVIDUAL SPORT: GOLF (1)

Learning Golf is a “how-to-learn” course that is designed expressly for aspiring golfers, both beginners and veterans. The course prepares students to experience a lifetime of ease, enjoyment, and fascination with playing the game of golf.

PHED 1230 INDIVIDUAL SPORT: TENNIS (1)

Applications of Tennis will assist students who want to increase their understanding of the physical, mental, and emotional aspects of tennis. The course provides descriptions of physical training techniques, plus useful guidelines of mental and emotional development.

PHED 1230 INDIVIDUAL SPORT:

ULTIMATE FRISBEE (1)

This course will cover the rules, techniques and tactics involved in playing Ultimate Frisbee while participating in various conditioning and skill-related drills and semi-competitive games.

PHED 1290 TEAM SPORT: SOCCER (1)

Fundamentals of Soccer provides a history and philosophy of soccer as well as practical applications. The early beginnings and the future of soccer will be discussed. Students will be able to explain and demonstrate the basics of soccer and develop technical skills. This course develops techniques while at the same time offering the student every facet of physical exercise, skill and mental dexterity.

PHED 1310 SWIM 1: BEGINNING SWIMMING (1)

This course is designed for the beginning student who wishes to learn to swim. Emphasis is on learning basic swimming techniques for fun, fitness, health and personal safety.

PHED 1320 AQUA FIT: SWIMMING FOR FITNESS (1)

Swim For Fitness explores the benefits of swimming and assists the student in achieving and maintaining fitness for a lifetime. Development of swimming techniques is the major focus of this course. Included in this course are some obstacles to swimming and their solutions.

PHED 1320 AQUA FIT: WATER AEOROBICS (1)

This course introduces the student to water aerobics. Water Workout is designed as a comprehensive water exercise regimen that targets all four major areas of fitness: flexibility, coordination, strength and endurance.

PHED 1430 PILATES: STYLE MAT TRAINING (1)

This course is designed to introduce students to Pilates-style mat work. The progressive course is designed to train core strength and stability as well as improve flexibility and facilitate relaxation.

PHED 1460 CONDITIONING: INDIVIDUAL HEALTH

the principle of determining target heart rate and will demonstrate the procedure. Students will be able to calculate average caloric expenditure for various activities and will be introduced to and participate in a basic walking program.

PHED 1710 MARTIAL ARTS: JUDO (1)

Judo utilizes body and mind in the development of skills. Emphasis of this course is on the art of throwing and on the art of groundwork which includes holds, locks and strangles. The beginnings and future of Judo will be discussed. Students will learn how to conduct themselves in a proper manner.

PHED 1710 MARTIAL ARTS: TAE-KWON-DO (2)

This course provides a practical application to the art of self-defense and a means of getting and staying in good physical condition. The emphasis will be on prevention of injury, health benefits, and a means of staying physically fit. Students will be introduced to the art of Karate (Tae-Kwon-Do), a means of striking with the hands and feet. It is not the intent of this class to teach students to be aggressive with others, only a means of self-defense and staying physically fit. Each student will be introduced to stretching exercises required to be able to perform basic punching, kicking, and self-defense techniques.

PHED 1910 OUTDOOR EXPERIENCE: FLY FISHING (1)

This course is for the fly-fishing novice, as well as all fly fishermen wanting to add to their fishing knowledge and techniques. Included in this course are such diversified subjects as fly-tying, nymphs, stream insects, proper wading, tricks for suspicious trout and discussions of fly rods and fly lines.

PHED 1950 RODEO: FUNDAMENTALS OF MEN'S TIMED EVENTS (2)

This course provides the student with an overview of men's timed events fundamentals and will provide a basis for subsequent more in-depth men's timed event courses. This class will study the principles and technique used in the three men's timed events; tie-down roping, team roping and steer wrestling. Students will learn safety procedures, identify and use proper safety equipment and fundamental techniques of men's timed events in this course. Student must pass a pre-participation physical and have proof of insurance on file.

PHED 1950 RODEO: FUNDAMENTALS OF RODEO (1)

This is an instructional course designed to familiarize students with the rules and regulations associated with competitive rodeo. The exercise and fitness principles and techniques involved in rodeo, as well as injury prevention, are addressed. Participation in competitive rodeo is not required for this course.

PHED 1950 RODEO: FUNDAMENTALS OF ROUGH STOCK RIDING (2)

This course provides the student with an overview of rough stock riding fundamentals and will provide a basis for subsequent more in-depth rough stock courses. This class will study the principles and technique used in the three rough stock riding events; bareback riding, saddle bronc riding and bull riding. Students will learn safety procedures, identify and use proper safety equipment and fundamental riding techniques in this course.

PHED 1950 RODEO: FUNDAMENTALS OF STEER WRESTLING (1)

This course provides the student with an overview of steer wrestling fundamentals. This class will study the principles and technique used in steer wrestling. Students will learn safety procedures, identify and use proper safety equipment and fundamental in this course.

PHED 1950 RODEO: FUNDAMENTALS OF WOMEN'S RODEO EVENTS (2)

This course provides the student with an overview of women's timed events fundamentals and will provide a basis for subsequent more in-depth women's timed event courses. This class will study the principles and technique used in the three women's timed events; barrel racing, goat tying and breakaway roping. Students will learn safety procedures, identify and use proper safety equipment and fundamental techniques of women's timed events in this course. Student must have passed a pre-participation physical and have proof of insurance on file with Student Affairs.

PHED 2996 TOPICS IN PHYSICAL EDUCATION (.5-3 CR)

This course number will be used for health and physical education topics that are not typically scheduled. Course will be offered irregularly, based on need and interest, and may cover any area of health and physical education including both theory and activity courses.

HPE 100 FITNESS FOR LIFE (1)

This self-paced course is designed to allow students the opportunity to stay in shape and live a healthy lifestyle by exercising on a regular basis. The students have an opportunity to use various exercise machines and equipment.

HPE 110 WESTERN SQUARE DANCE (1)

This course illustrates traditional western square dances. Included in this course is a step by step guide to the framework and the different type of square dances. The focus is not only on technique but in having fun.

HPE 112 BEGINNING BOWLING (1)

This course acquaints the student with the lifetime sport of bowling. instruction will focus on terminology, equipment selection, basic techniques and scorekeeping, as well as individual evaluation tips. Team competition will be introduced. Emphasis will be placed on having fun while bowling.

HPE 118 FITNESS YOGA (1)

Introduces various techniques of fitness-style Yoga.

HPE 120 STEP AEROBICS (1)

Step Aerobics provides students with a cardiovascular workout as well as a weight reduction program. The routine varies between aerobic dance and aerobic workout with the stepper. This provides a total body workout and adds variety to the program. Students will be introduced to the policies for a safe workout and will follow and observe these rules. Students will understand the principle of maintaining target heart rate and demonstrate accurate body movements throughout the routine.

HPE 124 INTERMEDIATE RODEO

TECHNIQUES (1)

This intermediate level instructional rodeo course addresses techniques used in various rodeo events. Demonstration of the various rodeo events will be given to the students and they will be given the opportunity to use their acquired skills at club practices. Both men's and women's events will be covered.

HPE 125 INTERMEDIATE WEIGHT TRAINING (1)

Continuation of PHED 1510. Course focuses on the design and safe implementation of an intermediate, periodized resistance/weight training program to improve muscular endurance, hypertrophy, muscular strength, power and peaking.

HPE 131 FIRST AID/CPR (1)

The First Aid/CPR course is designed to provide a focused program in basic life support for laypersons who will serve as first responders to potential adult victims of cardiopulmonary arrest at home, at work, and in the community. The primary goal of this course is to provide lay rescuers with the skills they need to respond to common life-threatening emergencies such as respiratory and cardiac arrest and foreign-body airway obstruction.

HPE 147 ZUMBA® (TM) TONING (1)

This course is designed to blend body-sculpting techniques and specific Zumba® moves to build a single calorie-burning, strength-training class. Students will learn how to use weighted, maraca-like Zumba™ Toning Sticks during performance of a variety of international dance movements to enhance rhythm, build strength, posture, and tone all the target zones during a safe, controlled routine.

HPE 151 INTERMEDIATE ROUGH STOCK RIDING (2)

This course familiarizes rough stock riders with the rules and regulations associated with competitive rough stock riding. Students will become familiar with the rules governing each rough stock event, as well as an understanding of the principals of judging rough stock events. Students will be able to use and demonstrate their skills in scheduled practices. Prerequisite; PHED 1950.

HPE 161 INTERMEDIATE WOMEN'S TIMED EVENTS (2)

This course familiarizes students with the rules and regulations associated with competitive women's timed events. Students will become familiar with the rules governing each woman's timed event, as well as an understanding of the principals of judging women's timed events. Students will be able to use and demonstrate their skills in scheduled practices. Student must pass a pre-participation physical and have proof of insurance on file. Prerequisite: PHED 1950.

HPE 171 INTERMEDIATE MEN'S TIMED EVENTS (2)

This course familiarizes students with the rules and regulations associated with competitive men's timed events. Students will become familiar with the rules governing each man's timed event, as well as an understanding of the principals of judging men's timed events. Students will be able to use and demonstrate their skills in scheduled practices. Student must pass a pre-participation physical and have proof of insurance on file. Prerequisite: PHED 1950.

HPE 195 STRESS MANAGEMENT (3)

This health and wellness course introduces the student to the concepts of reducing stress through time management, breathing/Eastern techniques, and assorted atypical considerations. Students should better identify stressors, develop methods of management, and observe improvements in their home, work/school, and spiritual lives.

HPE 201 HEALTH AND WELLNESS (3)

This course is a "user-friendly" guide to healthful living that encourages students to take proactive stance toward maintaining health, with a focus on the lifestyle components that encourage wellness. It encompasses all areas of health: physical, emotional, social, intellectual, and spiritual.

HPE 214 ADVANCED RODEO TECHNIQUES (1)

This is an instructional course designed to familiarize students with the rules and regulations associated with competitive rodeo. The exercise and fitness principles

and techniques involved in rodeo, as well as injury prevention, are addressed. Participation in competitive rodeo is not required for this course.

HPE 216 APPLIED GOLF (1)

Applied Golf is an in depth course that is designed for golfers to look into the different swing mechanics taught by some of the worlds greatest teachers, to analyze their games, to make the needed improvements, and to play the game with the knowledge of the great players of the past and present. This class will prepare the student to evaluate their own game and the knowledge to make adjustments to improve their game.

HPE 224 APPLIED RODEO TECHNIQUES (1)

This is an instructional course designed to familiarize students with the rules and regulations associated with competitive rodeo. The exercise and fitness principles and techniques involved in rodeo, as well as injury prevention, are addressed. Participation in competitive rodeo is not required for this course.

HPE 226 HISTORY OF DANCE (1)

This course explores the exciting, daring, and dynamic world of dance. There will be a broad, historic overview of the art form. Other topics include the respective roles of the dancer, choreographer and audience. The origins and evolution of the major dance genres will also be explored.

HPE 235 ADVANCED WEIGHT TRAINING (1)

Continuation of HPE 125. Course focuses on the design and implementation of advanced resistance training programs to improve muscular endurance, hypertrophy, muscular strength, power and peaking. Prerequisite: HPE 125 or consent of instructor.

HPE 243 ZUMBA® III (1)

This course is designed to give students a more advanced Zumba® experience. Zumba classes feature exotic rhythms set to high-energy Latin and international beats. The Zumba® Rhythms include: Merengue, Salsa, Raggaton, Calypso, Flamenco, Belly Dancing, Tango, Samba, and much more. Program integrates some of the basic principles of aerobic, interval, and resistance training to maximize caloric output, cardiovascular benefits and total body toning.

The cardio-based dance movements are easy to- follow steps that include body sculpting, which targets areas such as gluteus, legs, arms, core, abdominals and the most important muscle in the body – the heart.

HPE 250 ADVANCED ROUGH STOCK RIDING (2)

This course provides the student with advanced level instruction of rough stock riding. The course will cover intermediate level techniques used in used in the three rough stock riding events; bareback riding, saddle bronc riding and bull riding. Students will be able to demonstrate proper safety techniques, injury prevention and intermediate level riding skills. Students will be given the opportunity to use their skills during scheduled classes. Student must pass a pre-participation physical and have proof of insurance on file. Prerequisites: PHED 1950 and HPE 151.

HPE 251 APPLIED ROUGH STOCK RIDING (2)

In this course students will apply fitness and wellness concepts involved in competitive rough stock riding events, injury prevention measures, basic injury care, and physical and mental strategies involved in competing in rough stock events as well as the proper techniques involved to be competitive in the three rough stock riding events; bareback riding, saddle bronc riding and bull riding. Student must pass a pre-participation physical and have proof of insurance on file. Prerequisites: PHED 1950, HPE 151, and HPE 250.

HPE 260 ADVANCED WOMEN'S RODEO EVENTS (2)

This course provides the student with advanced level instruction of women's timed events. The course will cover intermediate level techniques used in used in the three women's timed events; barrel racing, goat tying and breakaway roping. Students will be able to demonstrate proper safety techniques, injury prevention and intermediate level women's timed event skills. Students will be given the opportunity to use their skills during scheduled classes. Student must pass a pre-participation physical and have proof of insurance on file. Prerequisites: PHED 1950 and HPE 161.

HPE 261 APPLIED WOMEN'S RODEO EVENTS (2)

In this course students will apply fitness and wellness concepts involved in competitive women's timed events, injury prevention measures, basic injury care, and physical and mental strategies involved in competing in women's timed events as well as the proper techniques involved to be competitive in the three women's timed events; barrel racing, goat tying and breakaway roping. Student must pass a pre-participation physical and have proof of insurance on file. Prerequisites: PHED 1950, HPE 161, HPE 260.

HPE 270 ADVANCED MEN'S RODEO TIMED EVENTS (2)

This course provides the student with advanced level instruction of men's timed events. The course will cover intermediate level techniques used in used in the three men's timed events; tie-down roping, team roping and steer wrestling. Students will be able to demonstrate proper safety techniques, injury prevention and intermediate level men's timed event skills. Students will be given the opportunity to use their skills during scheduled classes. Student must pass a pre-participation physical and have proof of insurance on file. Prerequisites: PHED 1950 and HPE 171.

HPE 271 APPLIED MEN'S TIMED EVENTS (2)

In this course students will apply fitness and wellness concepts involved in competitive men's timed events, injury prevention measures, basic injury care, and physical and mental strategies involved in competing in men's timed events as well as the proper techniques involved to be competitive in the three men's timed events; tie-down roping, team roping and steer wrestling. Student must pass a pre-participation physical and have proof of insurance on file. Prerequisites: PHED 1950, HPE 171, HPE 270.

Health Science (HLSC)

HLSC 1110 INTRODUCTION TO HEALTH SCIENCE (3)

This course introduces students to various health professions and the common knowledge, skills, and professional dispositions necessary for success in the health

care field. Students will explore basic concepts in anatomy and physiology, medical terminology, human growth and development, cultural diversity, legal and ethical issues, components of the health care delivery system, roles and responsibilities of health care professionals and educational requirements as they relate to the health care field.

HLSC 1210 MEDICAL CAREER EXPLORATION (3)

Medical Career Exploration examines the goals of health care and explores the requirements of medical educational programs. This course provides research into educational requirements, desired personal characteristics, job satisfaction, career advancement, employment opportunities, and work hours. Topics discussed are socioeconomics, current and future health care trends, ethical issues, and pharmaceutical use in medicine. Hands-on experience at a medical facility is included as part of the course. Prerequisites: ENGL 1110 and HLSC 1110.

HLSC 1310 DENTAL CAREER EXPLORATION (3)

Dental Career Exploration examines the goals of dentistry and explores the requirements of dental educational programs. This course provides research into career descriptions, career role, educational ladder, safety issues, and career opportunities for dentists. Hands-on experience at a dental clinic is included as part of the course. Prerequisites: ENGL 1110 and HLSC 1110.

HLSC 1410 VETERINARY CAREER EXPLORATION (3)

Veterinary Career Exploration examines the goals of veterinary medicine and explores the requirements of veterinarian educational programs. This course provides research into career descriptions, career role, educational ladder, safety issues, and career opportunities for veterinarians. Hands-on experience at a veterinary clinic is included as part of the course. Prerequisites: ENGL 1110 and HLSC 1110.

History (HIST)

HIST 1110 UNITED STATES HISTORY I (3)

The primary objective of this course is to serve as an introduction to the history of the United States from the pre-colonial period to the immediate aftermath of the

Civil War. The elements of this course are designed to inform students on the major events and trends that are essential in the understanding of the development of the United States within the context of world societies. (HIST 1110 - Area V)

HIST 1120 UNITED STATES HISTORY II (3)

The primary objective of this course is to serve as an introduction to the history of the United States from reconstruction to the present. The elements of this course are designed to inform students on the major events and trends that are essential in the understanding of the development of the United States within the context of world societies. (HIST 1120 - Area V)

HIST 1150 WESTERN CIVILIZATION I (3)

This course is a chronological treatment of the history of the western world from ancient times to the early modern era. The elements of this course are designed to inform students on the major events and trends that are essential in the understanding of the development of western civilization within the context of world societies. Selective attention will be given to “non-western” civilizations which impact and influence the development of “western” civilization. (HIST 1150 - Area V)

HIST 1160 WESTERN CIVILIZATION II (3)

This course is a chronological treatment of the history of the western world from the early modern era to the present. The elements of this course are designed to inform students on the major events and trends that are essential in the understanding of the development of western civilization within the context of world societies. Selective attention will be given to “non-western” civilizations which impact and influence the development of “western” civilization. (HIST 1063 - Area V)

HIST 2110 SURVEY OF NEW MEXICO HISTORY (3)

The primary objective of this course is to serve as an introduction to the history of New Mexico from the preColumbian times to the present day. The elements of this course are designed to inform students on the major events and trends that are essential in the understanding of the development of New Mexico within the context of the Americas. (HIST 2110 - Area V)

**HIST 160 THE U.S. AND VIETNAM
1940-1975 (3)**

This course is a survey of the intersection of American and Asian histories in Vietnam. It not only explores the Vietnamese context of the war, but also identifies the reason for United States involvement. The class analyzes the relationship of the war to the foreign policies of the Kennedy, Johnson, and Nixon administrations. Consideration is given to this foreign policy as a representative example of post-World War II United States globalism. In addition, the course examines the relationship of the war to domestic policy and the anti-war movement. It also considers the causes of defeat and the plight of the war's veterans. Finally, it assesses the lessons that were learned.

Human Services (HMSV)

HMSV 1110 GROUP DYNAMICS (3)

This course introduces you to basic issues and stages of development in the group counseling process; overview of types of counseling groups, group theory, leadership ethical guidelines, group formation and termination.

**HMSV 1120 INTERVIEWING
TECHNIQUES (3)**

This course is designed to teach basic interviewing techniques used in a variety of settings. Theoretical foundations of various interviewing styles and techniques will be examined. The student will develop an awareness of ways in which the interviewer's background, attitudes, and behaviors influence the interview.

**HMSV 2140 INTRODUCTION TO
ALCOHOL AND DRUG
ABUSE (3)**

This course provides a broad overview of the field, including issues of alcohol and other drugs in history and society; definitions and prevalence of alcohol and drugs use misuse and addiction; major theoretical perspectives on the causes and remedies of substance abuse; major landmarks in alcohol and drug social policy; and the development and evolution of the alcohol and drug abuse counseling field.

HMSV 2213 CO-OCCURRING DISORDERS

(3)

This course provides students with an understanding of co-occurring psychiatric and substance abuse disorders and their impact on the individual, family and community. The course includes an integrated approach to address the issues accompanying the illness.

**HMSV 2230 ALCOHOL & DRUG ABUSE
COUNSELING: SPECIAL
POPULATIONS (3)**

This course emphasizes the techniques and skills required for counseling with special populations including women, minorities, youth and persons with co-occurring physical and mental disabilities and disorders.

**HMSV 2270 SUBSTANCE ABUSE IN
FAMILIES (3)**

This course examines substance abuse within the context of a family system. It includes aspects such as developing a substance abuse family identity, typical problem-solving behaviors in substance-abuse families, daily routine regulators of home life, family ritual disruptions and intergenerational transmission of substance abuse patterns.

**HMSV 2280 SUBSTANCE ABUSE
PREVENTION (3)**

This course presents an overview of the history, principles, and approaches to the field of substance prevention. Topics include promotion of healthy lifestyle choice, community collaboration, public policy, and effective prevention planning. This course meets the State of New Mexico Alcohol, Tobacco, and Other Drugs (ATODA) requirements and prepares students to become candidates for certification as prevention interns.

HMSV 2998 INTERNSHIP (3)

The purpose of internship in social welfare is to render students the opportunity to apply classroom knowledge to practice. Toward that end, the internship requires students to be placed with a community agency. In their respective agency placement, students are expected to demonstrate

social work skills, knowledge, and values in working with individuals, groups, families and communities. The internship can be done Fall or Spring semester or during the Summer session. Prerequisite: SOWK 2110.

Mathematics (MATH)

MATH 1110 MATH FOR TEACHERS I (3)

Investigates the representation of rational numbers and rational number arithmetic, including base ten and decimal numbers, fractions, and arithmetic operations on these sets. Connections to basic geometric concepts are included. Explanation and problem solving is emphasized throughout. Prerequisite: A grade of “C” or better in MATH 101 or appropriate score on the Placement Test.

MATH 1130 SURVEY OF MATHEMATICS (4)

This course will develop students’ ability to work with and interpret numerical data, to apply logical and symbolic analysis to a variety of problems, and/or to model phenomena with mathematical or logical reasoning. Topics include financial mathematics used in everyday life situations, statistics, and optional topics from a wide array of authentic contexts

MATH 1215 INTERMEDIATE ALGEBRA (3)

A study of linear and quadratic functions, and an introduction to polynomial, absolute value, rational, radical, exponential, and logarithmic functions. A development of strategies for solving single-variable equations and contextual problems. Prerequisite: A grade of C or better in MATH 101 or appropriate score on the Success Assessment/ Placement Test.

MATH 1220 COLLEGE ALGEBRA (4)

The study of equations, functions and graphs, reviewing linear and quadratic functions, and concentrating on polynomial, rational, exponential and logarithmic functions. Emphasizes algebraic problem solving skills and graphical representation of functions. Prerequisite: A grade of C or better in MATH 1215 or appropriate score on the Success Assessment/Placement Test. (MATH 1220 - Area II)

MATH 1230 TRIGONOMETRY (3)

A study of plane trigonometry including the definitions of the fundamental trig functions using right angle

triangle and unit circle approaches. Trig functions of any real number will be evaluated and the functions graphed along with their transformations. Trigonometric identities will be developed and demonstrated including multiple angle identities and identities developed from them. Inverse Trigonometric functions will be developed and used to solve trigonometric equations. Trigonometric applications will be solved using right angle trigonometry and the laws of sines and cosines. Trigonometric methods will be applied to complex numbers and the use of 2D vectors and vector dot products. Prerequisite: MATH 1220 or appropriate score on the Success Assessment/ Placement Test. (MATH 1230 - Area II)

MATH 1350 INTRODUCTION TO STATISTICS (4)

This course discusses the fundamentals of descriptive and inferential statistics. Students will gain introductions to topics such as descriptive statistics, probability and basic probability models used in statistics, sampling and statistical inference, and techniques for the visual presentation of numerical data. These concepts will be illustrated by examples from a variety of fields. Prerequisite: MATH 101 or MATH 1130 with a grade of “C” or better, or an appropriate score on the Mathematics Placement Assessment Test. (Physics 1114 - Area III)

MATH 1430 APPLICATIONS OF CALCULUS I (3)

An algebraic and graphical study of derivatives and integrals, with an emphasis on applications to business, social science, economics and the sciences. Prerequisites: MATH 1220 and MATH 1230 with grade C or better or an appropriate score on the Success Assessment/Placement Test. (MATH 1613 - Area II)

MATH 1440 APPLICATIONS OF CALCULUS II (3)

Topics in this second course of Applications of Calculus include functions of several variables, techniques of integration, an introduction to basic differential equations, and other applications. Prerequisite: MATH 1430 or appropriate score on the Success/ Assessment Placement Test.

MATH 1512 CALCULUS I (3)

Limits. Continuity. Derivative: definition, rules,

geometric interpretation and as rate-of-change, applications to graphing, linearization and optimization. Integral: definition, fundamental theorem of calculus, substitution, applications such as areas, volumes, work, averages. Prerequisite: MATH 1430 or appropriate score on the Success/ Assessment Placement Test.

MATH 101 BASIC ALGEBRA (4)

This course is an introduction or review of basic algebra. Topics include real numbers and algebraic expressions, equations and inequalities, graphing linear equations, solving systems of linear equations, and an introduction to arithmetic operations of polynomials and factoring polynomial expressions. Prerequisite: A grade of C or better in MATH 100 or appropriate score on the Success/Assessment Placement Test.

MATH 103 INTRODUCTION TO GRAPHING CALCULATORS

(1)

This is an instructional course designed to familiarize students to the use of graphing calculators and graphing software programs on the computer. The course will give an overview of the mathematical logic, graphing and programming capabilities for one of the family of Texas Instrument calculators (namely the TI 83 or TI 83 Plus) and one or more instructor-selected graphing software programs such as Winplot and Graphical Analysis.

MATH 162 CALCULUS I (4)

Topics of this first course in calculus will include limits of functions and continuity, and intuitive concepts and basic properties of the following: the derivative as a rate of change, using intuitive, numerical and theoretical concepts. Applications of the derivative will be made to graphing, linearization and optimization. The integral as a Riemann sum, the relation between differentiation and integration, and applications of the definite integral will be discussed. Prerequisite: MATH 1230 Trigonometry with a grade of "C" or better, or appropriate score on the Success Assessment/ Placement Test..

MATH 163 CALCULUS II (4)

Topics of this second course in Calculus will include applications of integration, techniques of integration,

logarithmic and exponential equations, and properties of sequences and series. Prerequisites: Math 162 Calculus I with a grade of "C" or better.

MATH 293A INTRODUCTION TO MATLAB

(3)

This is an instructional course designed to familiarize students to the use of software programs on the computer. The course will give an overview of MATLAB and its graphing and programming capabilities.

Music

MUSC 1130 MUSIC APPRECIATION: WESTERN MUSIC (3)

This course explores the ideas of music in society and its cultural relevance and is designed to increase the students' appreciation of music as well as to enhance their listening skills. Students are introduced to various periods, styles, and composers of music and become acquainted with knowledge and appreciation of Western music from various cultures and times.. (Music 1130 - Area V)

Philosophy

PHIL 2150 MORALITY AND SOCIETY (3)

This course will focus on the philosophical analysis of contemporary moral issues. Students will read and discuss texts dealing with various controversial social issues, which might include health care access, physician-assisted suicide and euthanasia, the death penalty, incarceration, war, and terrorism. (PHIL 2150 - Area V)

PHIL 2230 PHILOSOPHICAL THOUGHT (3)

In this course, students will grapple with some of the key questions of philosophy through the study of classical and contemporary thinkers. Students will become familiar with the perennial problems in subfields of philosophy such as metaphysics, epistemology, ethics, and aesthetics. They will learn to approach these problems both critically and sympathetically. (PHIL 2230 - Area V)

Phlebotomy

PHLB 113 INTRODUCTION TO

PHLEBOTOMY (3)

This course examines the basic concepts of phlebotomy and venipuncture procedures along with anatomy and physiology, medical terminology, medical legal and ethical issues, best practices and quality assurance. The program is designed to provide students with the necessary skills for gainful employment as a phlebotomist, working under the supervision of a clinical laboratory supervisor. The phlebotomist is responsible for the proper collection, processing and testing of blood specimens and various other medical samples in accordance with OSHA safety regulations and standards. Upon successful completion of this program, the student will be eligible for application to the national licensing examination through the American Society for Clinical Pathology (ASCP). Prerequisite or Corequisite: AHS 103 and AHS 101.

PHLB 115L CLINICAL PHLEBOTOMY I (3)

This Clinical course provides students an environment with multiple opportunities to practice phlebotomy procedures on simulated and actual patients. Prerequisite: AHS 103 and AHS 101. Corequisite: PHLB 113L.

PHLB 116L PHLEBOTOMY CLINICAL LAB (3)

This course is the clinical portion of your certificate. It will entail going to clinical sites as set up by you and the instructor and obtaining 100 phlebotomy sticks per state requirements. Prerequisites: PHLB 113 and PHLB115L. Corequisite: PHLB 117.

PHLB 117L SPECIAL PRACTICES IN PHLEBOTOMY (3)

This course examines additional basic concepts of: anatomy and physiology, specialized blood and non-blood collections, specimens and testing, infection control, safety, first aid and personal wellness, career opportunities in clinical and hospital sites, writing resumes and job seeking skills, best laboratory practices and continued quality assurance. Permission required. Prerequisite: PHLB113 and PHLB115L. Corequisite: PHLB116L.

Physics

Astronomy (ASTR)

ASTR 1115C INTRODUCTION TO ASTRONOMY LECTURE & LABORATORY (4)

This course surveys observations, theories, and methods of modern astronomy. The course is predominantly for non-science majors, aiming to provide a conceptual understanding of the universe and the basic physics that governs it. Due to the broad coverage of this course, the specific topics and concepts treated may vary. Commonly presented subjects include the general movements of the sky and history of astronomy, followed by an introduction to basic physics concepts like Newton's and Kepler's laws of motion. The course may also provide modern details and facts about celestial bodies in our solar system, as well as differentiation between them – Terrestrial and Jovian planets, exoplanets, the practical meaning of “dwarf planets”, asteroids, comets, and Kuiper Belt and Trans-Neptunian Objects. Beyond this we may study stars and galaxies, star clusters, nebulae, black holes, and clusters of galaxies. Finally, we may study cosmology -- the structure and history of the universe. The lab component of this course includes hands-on exercises that work to reinforce concepts covered in the lecture, and may include additional components that introduce students to the night sky.

Physics (PHYS)

PHYS 1115C SURVEY OF PHYSICS WITH LAB (4)

Overview of the concepts and basic phenomena of physics. This course provides a largely descriptive and qualitative treatment with a minimum use of elementary mathematics to solve problems. No previous knowledge of physics is assumed. Includes laboratory.

(Physics 1114 - Area III)

PHYS 1230C ALGEBRA-BASED PHYSICS I LECTURE + LABORATORY (4)

An algebra-based treatment of Newtonian mechanics. Topics include kinematics and dynamics in one and two dimensions, conservation of energy and momentum, rotational motion, equilibrium, and fluids. A series of laboratory experiments associated with the material presented in PHYS 1230. Prerequisite: MATH 101 or MATH 1130 with a grade of "C" or better, or an appropriate score on the Mathematics Placement Assessment Test. (PHYS1230C - Area III)

PHYS 1240C ALGEBRA-BASED PHYSICS II LECTURE + LABORATORY (4)

The second half of a two semester algebra-based introduction to Physics. This course covers electricity, magnetism and optics. A series of laboratory experiments associated with the material presented in PHYS 1240.

Pre- or co-requisite: PHYS 1240 Algebra-based Physics II. Prerequisite: PHYS 1115C. (PHYS 1240C - Area III)

Political Science

PSCI 102 AMERICAN POLITICS (3)

This course emphasizes the structure and function of government as described in the Constitution of the United States. There will be discussions of major political ideas, theories, and practices in the meaning and motivation of government. The rise of federalism and of civil rights and liberties will be placed within the context of political history. Information presented will be predominantly focused on United States Supreme Court decisions. There will be discussion of the major political parties that have influenced the political and legislative environment. The executive and judicial branches of government will be also emphasized. (POLS 1123 - Area IV)

PSCI 202 STATE AND LOCAL GOVERNMENT (3)

This course emphasizes the structure and function of government as described in the Constitution of the United States. There will be discussions of major political ideas, theories, and practices in the meaning and motivation of government. The rise of federalism and of civil rights and liberties will be

placed within the context of political history. Information presented will be predominantly focused on United States Supreme Court decisions. There will be discussion of the major political parties that have influenced the political and legislative environment. The executive and judicial branches of government will be also emphasized.

Pre-Collegiate Studies

ENG 098 REFRESHER ENGLISH (3)

Students in this course will develop their skills in basic written English. Proficiency in writing effective sentences, identifying and correctly using parts of speech are the desired outcomes in this course. Students will also achieve mastery in punctuation and capitalization. Students will develop a rich vocabulary.

ENG 099 BASIC GRAMMAR AND USAGE (4)

This is the beginning level of the pre-collegiate English courses offered at Mesalands Community College. The course offers intensive instruction in writing sentences and paragraphs. The course offers intensive instruction in grammar and usage, including parts of speech, thesis statements, topic sentences, and paragraph development. A writing laboratory is included for learning enhancement.

ENG 100 BASIC WRITING SKILLS (3)

This course places emphasis on teaching students to write well-developed, grammatically correct essays. Students learn how to develop topic sentences and write paragraphs and essays that are purposeful, coherently developed, and free of grammatical and usage errors. This course will prepare students for ENG 102

MATH 098 REFRESHER MATH (3)

Students in this course will develop their skills in arithmetic. Proficiency in addition, subtraction, multiplication, and division are the desired outcomes in this course. Students will also achieve mastery in arithmetic functions using fractions, decimals and percentages.

MATH 099 GENERAL MATH (4)

General Math is designed to prepare the student with the basic math skills needed for a certificate, diploma, entry to higher math, or personal improvement. The course covers addition, subtraction, multiplication, division, exponential notation, order of operations, prime numbers and

factoring as related to whole numbers, fractions, decimals, ratio and proportion, percents, business and consumer applications, and statistics. The course is designed to help the student develop numerical skill, enhance mathematical vocabulary, develop estimation and problem solving skills, apply mathematical concepts, and enhance calculator skills. A TI-30Xa SE Calculator is required for this course. Prerequisite: Appropriate score on the Success/Assessment Placement Test.

MATH 100 PRE-ALGEBRA (3)

Pre-Algebra is designed to prepare the student for algebra, business math or accounting. Topics include: United States Customary Units of Measurement; Rational Numbers, including addition, subtraction, multiplication, and division of integers, scientific notation and the order of operations agreement; Introduction to Algebra including variable expressions, equations, translating verbal expressions into mathematical expressions, translating sentences into equations and solving; and Geometry including angles, lines, and geometric figures, perimeter, area, volume, the Pythagorean Theorem, and similar and congruent triangles. A scientific calculator is required for this course. Prerequisite: MATH 099, or appropriate score on the Success/Assessment Placement Test.

RED 099 FUNDAMENTALS OF READING AND VOCABULARY DEVELOPMENT (4)

This pre-collegiate course is designed to develop vocabulary skills including: compound words, root words, prefixes and suffixes, synonyms, antonyms, homonyms and idioms. This course also covers fundamental reading skills including details, events and sequences, main idea, causes and effects, conclusions, character analysis, author bias and viewpoint, techniques of persuasion, and techniques of writing, such as similes, metaphors, hyperbole, and personification. A lab is included for reading enhancement on Plato and EDL systems in the Educational Services Center.

RED 100 BASIC READING SKILLS (3)

This pre-collegiate course is designed to improve reading skills by emphasizing word attack, comprehension, vocabulary, reading rate, reference skills, following directions and listening skills. The course provides the student with reading practice and critical thinking skills leading to sufficient skills to meet college reading demands. (The course will not apply toward reading

certification endorsement.) Prerequisite: ENG 099 or appropriate score on the Success Assessment/Placement Test.

Psychology (PSYC)

PSYC 1110 INTRODUCTION TO PSYCHOLOGY (3)

This course will introduce students to the concepts, theories, significant findings, methodologies, and terminology that apply to the field of psychology. (PSYC 1110 - Area IV)

PSYC 1150 HUMAN RELATIONS (3)

Students are introduced to psychology as a science that includes the study of human relations, using various theories of personality and group dynamics. Topics surveyed include psychology of self, personality theory, parenting, life span development, learning, therapies, and psychological disorders.

PSYC 2120 DEVELOPMENTAL PSYCHOLOGY (3)

Study of human physical and psychological change and stability from a lifespan development perspective.

PSYC 2210 ABNORMAL PSYCHOLOGY (3)

This course provides students with an introduction to the field of abnormal psychology. Subject areas include history, methods, theories, etiologies, classification and treatment of disorders.

PSYC 2230 PSYCHOLOGY OF ADJUSTMENT (3)

This course focuses on the individual's adjustment to society, and the application of psychological principles to the understanding of adjustment.

PSYC 2290 PRINCIPLES OF TREATMENT (3)

This course involves studies of the various treatment approaches used with alcohol and drug abusers with an emphasis on the principles that govern their effective application. There will be a focus on Intervention, Assessment, and Treatment Plan Development with the substance abuser resulting in meaningful change and a better quality of life.

PSYC 2310 DRUGS AND BEHAVIOR (3)

The course provides a general introduction to the effects of alcohol, opiates, and other major classes of psychoactive drugs on the central nervous system, emphasizing the relationship between physiological, psychological, and behavioral effects of drugs.

PSYC 2325 PREVENTION OF DRUG AND

ALCOHOL ABUSE (3)

This course, Prevention of Drug and Alcohol Abuse, examines effective programs and strategies used in the schools and in the community that prevent substance abuse and related problems. Emphasis is on how to design an appropriate, effective prevention program in either the schools or the community, which will prevent or reduce the incidence of drug or alcohol abuse in a particular high-risk population.

Range Science (RGSC)

RGSC 100 INTRODUCTION TO PLANT SCIENCE (3)

This introductory course in plant science addresses the fundamentals of agricultural plants with emphasis on nature, the environment and strategies of crop production. Emphasis on the ecological process for sustainable plant development will be explored as well as the identification of agricultural plants.

RGSC 2110 INTRODUCTION TO RANGELAND MANAGEMENT

(3)

This course covers the principles of managing and understanding pasture and rangelands. Plant physiology and ecology, plant communities and rangeland sustainability and how they relate to livestock production and wildlife management will be discussed.

Religion (RELG)

RELG 1123 HEBREW BIBLE (3)

An introduction to the history, beliefs, practices, and development of the Hebrew and later Jewish religion as

reflected in the Hebrew Biblical Scriptures, using a historical and critical approach, with attention given to understanding its socio-cultural and political environment.

RELG 1126 NEW TESTAMENT (3)

An introduction to the history, beliefs, practices, and development of the early Christian religion as reflected in the New Testament, using a historical and critical approach, with attention given to understanding its sociocultural and political environment.

RELG 2130 HISTORY OF CHRISTIANITY (3)

This course examines Christianity from its origins to the present. The course will focus on church doctrine, people, movements, and problems that have characterized Christianity over two millennia.

RELG 2140 THE BOOK OF ACTS (3)

An examination of the work of Peter and other early Christian leaders; missionary journeys of Paul; and the spread of early Christianity as recounted in the Book of Acts.

RELG 2520 JESUS AND THE SCHOOL OF HEALING (3)

The introductory course takes a holistic approach to the biblical concept of healing. Topics include introduction to selected Old Testament passages with major emphasis in New Testament passages, containing the aspects of healing concepts. These passages are introductory exposure of the student to a broad understanding of the role of the Christian churches healing ministry in the twenty-first century. This will include introduction to the historical concepts, theological concepts, sacramental concepts, current models of holistic medicine concepts, and an introduction to authors with writings of relevance. Exposure to current works regarding death and dying; stress management, and related holistic theories.

RELG 2525 BELIEFS AND BELIEVERS (3)

In this course, the student develops an understanding of what they believe and why they believe it. The student will gain some initial exposure to the religious systems of major world religions: Hinduism, Buddhism, Taoism, Confucianism, Judaism, Christianity, and Islam – as well as systems of belief which are outside the scope of what are deemed to be mainstream religious institutions, such as new age religions, Neopaganism, and “civil” religion.

Social Work (SQWK)

SOWK 2110 INTRODUCTION TO HUMAN SERVICES AND SOCIAL WORK (3)

This course is for students who are interested in social welfare issues and/or are considering entering a social service profession. The course presents an overview of social problems, issues and trends, and the network of social agencies developed to address these concerns. The course examines the influence of personal and professional values and ethics on the helping relationship. The concept of social welfare will be discussed from a social work perspective (with an emphasis on social justice), and students will gain a basic understanding of social work in U.S. society, social work career opportunities, and contemporary issues facing social workers. Approaches relevant to work with individuals, families, groups and communities are presented, with special emphasis on Hispanic and Indigenous populations of New Mexico and the Southwest.

Sociology (SOCI)

SOCI 1110 INTRODUCTION TO SOCIOLOGY (3)

This course will introduce students to the basic concepts and theories of sociology, as well as to the methods utilized in sociological research. The course will address how sociological concepts and theories can be utilized to analyze and interpret our social world, and how profoundly our society and the groups to which students belong influence them. Students will be given the opportunity to challenge their “taken for granted” or “common sense” understandings about society, social institutions, and social issues. Special attention will also be paid to the intimate connections between their personal lives and the larger structural features of social life. In addition, the implications of social inequalities, such as race/ethnicity, gender, and social class will be central to the course’s examination of social life in the United States. (SOCI 1110 - Area IV)

SOCI 1345 CULTURAL DIVERSITY (3)

This course examines, from a theoretical and experiential social work perspective, the personal behaviors and

institutional factors that have led to oppression of ethnic minorities and various cultural groups. Attention is given to discriminatory practices as related to sex, age, religion, disablement, sexual orientation, and culture. The course explores the strategies that the various groups have employed to deal with discrimination. Implications to the individual, society, and the profession are explored.

SOCI 1350 RURAL AMERICA (3)

Change and diversity are the terms most descriptive of rural America today. This course addresses four themes, which characterize the social and economic contexts within which rural communities must address their problems. Each section examines rural communities from a different perspective, enabling students to explore the complexity and diversity among communities. Collectively the four sections examine the process of community development and transition—exploring the ways in which history, culture, and policies limit change as well as the extent to which local community resources can mobilize to support efforts at community change.

SOCI 2225 INTRODUCTION TO WOMEN’S STUDIES (3)

This course is designed to help students identify, understand and defuse gender stereotypes and barriers. A control goal is to empower women to take charge of their own lives. Topics include sexuality, socialization, self-esteem, leadership, motherhood and transcending victimization models of feminism and femininity.

SOCI 2226 EMPOWERING WOMEN (3)

This course is designed to help students identify, understand and defuse gender stereotypes and barriers. A control goal is to empower women to take charge of their own lives. Topics include sexuality, socialization, self-esteem, leadership, motherhood and transcending victimization models of feminism and femininity.

SOCI 2240 SOCIOLOGY OF INTIMATE RELATIONSHIPS AND FAMILY (3)

This course provides an overview of contemporary intimate relationships and families from sociological perspectives. We will examine intimate relationships and families as social constructions whose meanings have changed over time and from place to place. This course will aid students in developing a greater understanding of intimate relationships and families as institutions in contemporary U.S. society. Intersections of race, class, gender, sexual orientation, nationality, and other factors within these institutions will be addressed. (SOCI 2240 - Area IV)

SOCI 2260 SOCIOLOGY OF AGING (3)

This is an introductory gerontology course for students interested in behavioral, social, or family studies. The course is designed to understand the separate processes of biological, psychological, and social aging and how these aging processes interact with each other and with our environment.

SOCI 2310 CONTEMPORARY SOCIAL PROBLEMS (3)

This course studies the nature, scope, and effects of social problems and their solutions. The course will concentrate on sociological perspectives, theories, and key concepts when investigating problems, such as inequality, poverty, racism, alienation, family life, sexuality, gender, urbanization, work, aging, crime, war and terrorism, environmental degradation, and mass media. This course is designed to build students' sociological understanding of how sociological approaches attempt to clarify various issues confronting contemporary life, as well as how sociologists view solutions to these problems. (SOCI 2310 - Area IV)

SOCI 2330 SOCIETY AND PERSONALITY (3)

From a sociological vantage point, this course will introduce students to the discipline of social psychology, which is the scientific study of how people think about, influence, and relate to one another. Special attention will be given to the applications of social psychological insights. The course will explore the many ways our social environment influences our behavior

SOC 100 FRAMEWORK FOR CHANGE (1)

A Framework for Change is a -based training series designed for men and women who face the challenge of overcoming a substance-abuse problem. The series provides a framework of concepts and techniques that focus on the underlying barriers to recovery. A Framework for Change provides critical thinking skills that assist the participant in making lifestyle changes that are necessary for long-term recovery. Prerequisite: Sentenced by the courts.

Theater (THEA)

THEA 1110 INTRODUCTION TO THEATRE (3)

This course provides an introduction to the study of theatre. Students will examine various components that comprise theatre, such as acting, directing, playwriting, dramaturgy, scenic and costume design, stagecraft, spectatorship, history, theory, and criticism. (THEA 1110 - Area V)

THTR 121 BEGINNING ACTING (3)

This course is an introduction to the techniques, principles of stage movement, and basic problems common to all actors. Production is used as a means of developing techniques and principles of acting, including auditioning skills and emphasis on voice and body control. A lab is required.

Welding

TSC 100 WELDING I (1)

This course is designed for introductory level welding and cutting processes to enhance technical skills. This course consists of understanding the theory and practice of Oxy-Acetylene welding, brazing, and cutting as well as Shield Metal Arc Welding (AC/DC). Lab will consist of exercises in oxy-acetylene and arc welding.

TSC 101 WELDING II (1)

TSC 101 is a continuation of TSC 100. Students receive additional practice in oxygen-acetylene and arc welding, brazing and cutting as well as shield metal arc welding (AC/DC). Laboratory will consist of exercises in oxy-acetylene and arc welding. Simple projects may be introduced. Prerequisite: TSC 100.

TSC 102 AUTO BODY WELDING (1)

This course is designed to teach the student the basics of mig welding for auto body and repair. The course will demonstrate the proper techniques to spot weld, plug weld, stitch weld, and continuous weld.

TSC 106 APPLIED WELDING (3)

Applied welding is a course designed to provide students with hands-on training in oxy-acetylene welding, brazing, and cutting, as well as shield metal arc welding (AC\DC). Student also will work with M.I.G and T.I.G welding, in addition to building projects.

TSC 107 APPLIED WELDING II (3)

This course concentrates on advanced study of materials and methods in their application to industry. Welding different metals in various positions and the study of welding codes, metallurgy of rods, electrodes, and materials will be covered. The practice of joint work, fabrication of equipment for industry and construction will be studied.

Wind Energy Technology

Renewable Energy (RNBL)

RNBL 1010 INTRODUCTION TO RENEWABLE ENERGY (3)

This course is an introduction to renewable energy as compared to non-renewable energy. A close study of locally available renewable energy will allow a hands-on approach to solar, hydro, bio mass, and wind energy. Proper siting, feasibility, payback, and calculations, such as, load, storage and production will be introduced. Passive as well as active systems and dwellings will be studied.

RNBL 1060 ELECTRICAL THEORY FOR RENEWABLE ENERGY (4)

This course introduces electrical safety, the basic principles of Direct Current (DC) and Alternating Current (AC) theory. Electrical energy applications in basic, capacitive, and inductive circuits will be covered in lecture and laboratory study, as will applications of basic renewable energy electrical components and systems.

RNBL 1150 FIELD SAFETY AND EXPERIENCE (3)

Wind turbine safety principles and practices are provided to ensure that persons working on wind power plants are safeguarded from the hazards associated with the work environment and the electro-mechanical systems therein. Students will obtain field experience involving tower safety

and rescue, and will be familiarized with applicable OSHA standards.

RNBL 1160 INTRODUCTION TO MOTORS AND GENERATORS (3)

The electric motor and generator are critically important devices for generating mechanical and electrical power in nearly all heavy industries, including wind energy. In this course, students will be introduced to the various types of motors and generators commonly found within commercial wind turbines and study their configurations, functions, and operational characteristics. Prerequisites: WET 101, RNBL 1160, and WET 205.

RNBL 1210 WIND TURBINE MECHANICAL SYSTEMS (3)

This course is designed to familiarize students with the mechanical systems found within industrial wind turbines. These include turbine yaw drive systems, pitch drive systems, primary drive gearboxes, and smaller mechanical systems. Prerequisites: WET 101, WET 105, RNBL 1150, and RNBL 1400.

RNBL 1400 WIND TURBINE CLIMBING AND SAFETY I (1)

This course will introduce the student to the environment of a wind turbine. The student will obtain skills of proper identification, inspection, donning, and maintenance of personal protection equipment (PPE) and fall protection equipment. An initial climb test will be administered before tower work proceeds.

RNBL 1410 WIND TURBINE CLIMBING AND SAFETY II (1)

This course will establish hazard awareness to the student in the environment of a wind turbine. The student will obtain skills of proper identification, inspection, reporting, and correcting the hazards. Climb time in this course will emphasize rigging, hoisting, and nacelle top equipment and proper tie off points. Prerequisite: RNBL 1400

RNBL 1993 RENEWABLE ENERGY WORKSHOP (3)

Renewable Energy Workshop consists of lecture,

tours and hands-on labs that introduces the theory and application of residential, community and commercial renewable energy being produced or utilized in New Mexico and the surrounding areas. This week long course may end with a project.

RNBL 2040 INTRODUCTION TO HYDRAULICS (3)

This course will introduce the basic elements and applications of hydraulic power. Additional emphasis will be given to circuits, pressure, flow and control of hydraulic systems. Prerequisite: WET 115

RNBL 2180 WIND TURBINE ELECTRONICS (4)

This course explores the technologies and methodologies employed by heavy industry to remotely monitor and control power facilities. The study of commercial wind turbine monitoring and control systems will be strongly emphasized, as will the use of such systems to aid in the troubleshooting and maintenance of wind turbines. This course is designed to familiarize students with the principles of digital technology, and the composition of systems that employ it. Emphasis will be given to advanced industrial computerized control and automation systems. Prerequisites: WET 116, WET 205, and WET 219.

WET 101 INTRODUCTION TO WIND ENERGY (3)

This course will explore the concept of harnessing naturally occurring winds to generate electricity. Wind powered mechanisms, wind farms, and the current status of wind energy utilization will be discussed. Horizontal Axis, Vertical Axis, and other Wind Turbine designs will be covered. The history of wind energy will be included.

WET 105 ELECTRICAL THEORY I (4)

This course introduces the basic principles of Direct Current (DC) and Alternating Current (AC) theory. Electrical energy applications in basic, capacitive, and inductive circuits will be covered in lecture and laboratory study, as will applications of basic electrical components and systems.

WET 120 OSHA 10 (1)

This 10-Hour Safety Course is intended for entry-level participants and is intended to provide instruction on a variety of general safety and health standards. Course topics will include Introduction to OSHA, Electrical Safety, Fall Protection, Walking and Working Surfaces, Materials Handling, Personal Protective Equipment, Exit Routes, Emergency Action Plans, Fire Prevention Plans, Fire Protection, Machine Guarding, and Hazard Communication. Upon successful completion of this course, participants will receive an OSHA Construction Safety and Health 10-Hour Card.

WET 121 WIND TURBINE MECHANICAL SYSTEMS (3)

This course is designed to familiarize students with the mechanical systems found within industrial wind turbines. These include turbine yaw drive systems, pitch drive systems, primary drive gearboxes, and smaller mechanical systems. Prerequisites: WET 101, WET 105, RNBL 1150, and RNBL 1400.

WET 190 INTERNSHIP IN WIND TECHNOLOGY (6)

The wind turbine internship gives students the opportunity to apply and practice the skills developed in the first year of the Wind Energy Technology Program in real-world settings at an actual wind farm.

WET 205 ELECTRICAL THEORY II (4)

Electrical Theory II builds upon basic direct current (DC) theory and alternating current (AC) theory obtained from Electrical Theory I, particularly alternating current and three-phase power generation as it relates to the wind turbine. Prerequisite WET 105.

WET 217 WIND TURBINE SITING, ERECTION, GENERATION AND DISTRIBUTION (3)

Through the understanding of required steps, the students will be obtaining knowledge of the development of a wind turbine site. Development will include the siting, construction and commissioning of the wind farm. The history of the United States electrical power industry is examined. The concepts of electrical power generated from a wind turbine, transfer through the power distribution system and received by the customer will be examined. Power curves are utilized to determine how much power

will be produced by a given turbine at a particular site. Dynamics of interfacing turbines with the power grid is examined. Prerequisite WET 116.

injuries sustained. Prerequisite: Health physical required

WET 219 WIND TURBINE OPERATIONS, MAINTENANCE, AND REPAIR

(4)

This valuable course is designed to introduce students to the general maintenance practices and procedures employed within the wind energy industry. The study of wind turbine mechanical system and subsystem fundamentals will be included. Hands on practice of installation, operation, maintenance, troubleshooting, and repair of wind turbine electro-mechanical systems is included in this course; as well as real-world troubleshooting scenarios that may be encountered in the wind energy workplace. Prerequisites: RNBL 1210, RNBL 2040, and WET 205.

WET 240 WIND TURBINE CLIMBING AND SAFETY III (3)

This course will instruct the student in the proper procedure of entering the wind turbine hub. The student will obtain the skill of proper lock out/tag out procedures of the rotor lock. The student will learn to identify the components inside the hub. Climb time will emphasize safe techniques of hub entrance and egression. Prerequisite RNBL 1410

WET 241 WIND TURBINE CLIMBING AND SAFETY IV (1)

This course will establish procedures to the student in stopping and starting the wind turbine. The student will obtain skills of proper housekeeping. The student will be introduced to maintenance and troubleshooting techniques. Climb time will evaluate the student's knowledge obtained through all Wind Turbine Climbing and Safety courses. Prerequisites: WET 240.

WET 250 TOWER SAFETY AND TRAINING

(1)

This training course is designed for tower workers who oversee other workers on the towers. The training provides individuals with the required skills to safely distinguish, evaluate, and control hazards related to wind tower work. It also teaches students climbing techniques, proper selection of fall protection equipment and how to correctly rig a variety of rescue equipment for a range of possibilities and rescue a victim considering the probable