

2015-2016 NOC Course Descriptions*

***Note:** Course descriptions for classes offered at Career Technology Centers as part of Northern's Cooperative Degree programs are listed separately in catalog file section for those degrees.

Accounting

ACCT 1101 Fundamentals of Bookkeeping

An introduction to the basic principles and practices of record keeping for businesses.

ACCT 1113 Basic Business Records I

The basic principles and practices of record keeping are the primary focus of Basic Business Records I.

ACCT 1123 Basic Business Records II

This course centers on record keeping for small businesses and is designed primarily for secretarial or occupational students. Prerequisite: ACCT 1113 Basic Business Records.

ACCT 1203 Fundamentals of Accounting

An introduction to the fundamental principles of double entry accounting as applied to practical business situations. Emphasis is given to development of financial statements, debit and credit rules of accounting, the accounting cycle, special journals and payroll accounting. *Traditionally offered in the Fall semester only.*

ACCT 1301 Personal Finance

An overview of the management of an individual's financial affairs to achieve financial objectives. Emphasis on budgeting, use of credit, bank services, insurance, and investing.

ACCT 1353 Casino Accounting

An introduction to accounting systems, procedures and controls relating to the gaming industry; covering the accounting process, revenue accounting, governmental regulations and internal controls related to gaming.

ACCT 2103 Accounting I—Financial

An introduction to financial accounting concepts, principles and development of financial information. Course work includes the accounting processes and principles of accrual accounting. Prerequisite: MATH 1483 Math Functions or MATH 1513 College Algebra or concurrent enrollment with instructor permission.

ACCT 2123 Computer Accounting I

An introduction to microcomputer applications related to accounting systems. Topics include general ledger; accounts receivable; accounts payable; inventory; payroll; and correcting, adjusting, and closing entries. Students will use a computer accounting software package to complete the financial accounting cycle for a sole proprietorship. Prerequisite: ACCT 1203 Fundamentals of Accounting or ACCT 2103 Accounting I-Financial. *Traditionally offered in the Fall semester only.*

ACCT 2153 Internal Auditing and Compliance for Casinos

An introduction to the unique compliance aspects for casinos and specifics of auditing the casino floor including the casino cage, table games, slot operations, the currency-transaction reporting audit process, and the new technology in these departments. You will learn about the concepts of fraud, the magnitude of casino fraud, and fraud prevention. Prerequisites: ACCT 1353 Casino Accounting and ACCT 2103 Accounting I-Financial.

ACCT 2203 Accounting II—Managerial

An introduction to managerial accounting concepts and objectives, cost system designs, planning and control of sales and costs, analysis of costs and profits and accounting for managerial decision making. Prerequisite: ACCT 2103 Accounting I-Financial.

Agriculture

AGRI 1013 Introduction to Horticulture Science

An introduction to the principles and practices of horticulture plant systems. Plant Structure and Function will be discussed along with the effects of environmental factors on plant growth. General cultural practices will be described including pest control, nutrition, and propagation.

AGRI 1113 Introduction to Agricultural Economics

An introduction to the role of agriculture within the U.S. economy. Topics will include economic analysis of the relationships between resources, production, income and consumption; discussion of economic systems; and economic applications for production and marketing. Prerequisite: math proficiency through MATH 0123 Intermediate Algebra. Offered fall semester only.

AGRI 1122 Horse Evaluation/Judging Evaluation of horse conformation and performance; judging halter, western pleasure, English pleasure, reining, cutting and other classes. Offered fall semester only.

AGRI 1124 Introduction to Animal Sciences

An introduction to production systems for the meat animal species: cattle, sheep, and swine. This course will examine global animal production, end-products and grading standards, an overview of the different breeds of livestock, biological

aspects of production, and an introduction to management practices for each of the various species. Offered fall semester only.

AGRI 1214 Introduction to Plant Sciences

World population and food supply; factors influencing plant growth and distribution; plant origin and classification; functions of plant organs in relationship to management; plant nutrition, propagation and improvement; cropping systems, tillage and harvesting; utilization of economic plants. Offered fall semester only.

AGRI 1222 Horse Evaluation II

Continued experience with evaluating horses both at halter and during performance. Increased experience with different breeds of horses. Preparation for an intercollegiate competition. Prerequisite: Horse Evaluation I or consent of instructor. Offered spring semester only.

AGRI 1224 Introduction to Plant and Soils Science

An introduction to plant and soil systems and the interactions necessary to produce the food and fiber to feed the world. Historical aspects, plant growth, nutrition and function, soil classification, analysis and fertility, crop production systems, and utilization will all be discussed.

AGRI 2123 Livestock Feeding

Nutrients, their functions and the nutrient composition of feedstuffs; feed classification; nutrient requirements of the various classes of livestock; balancing rations for different kinds of production. Prerequisite: math proficiency through MATH 0123 Intermediate Algebra. Offered spring semester only.

AGRI 2124 Fundamental of Soil Science

Formation and classification of soils, principal chemical, biological and physical properties of soils in relation to plant growth; soil fertility, productivity, and land use. Prerequisite: CHEM 1014 Concepts of Chemistry or CHEM 1314 Chemistry I or concurrent enrollment. Offered spring semester only.

AGRI 2222 Live Animal Evaluation

Modern tools for livestock selection including performance records, pedigree information, visual appraisal, and the principles of using these tools to evaluate critically cattle, sheep, swine, and horses. Prerequisite: AGRI 1124 Introduction to Animal Science or concurrent enrollment. Offered fall semester only.

AGRI 2303 Development of Agricultural Leadership

This course focuses on the development of leadership skills used in the agricultural industry and career fields. The course emphasis will be on enabling students to identify the key attributes of leadership by exploring their unique values system, vision, self-awareness, personal strengths and team building skills. Students will also learn valuable skills in resume writing, job interview and portfolio building. Offered spring semester only.

AGRI 2401 Artificial Insemination--Beef

The methodology and theory of artificial insemination applied to beef animals. A weekend course involving a review of the reproductive anatomy and physiology of beef animals, the proper procedure for storage and handling of semen, preparation of the female for insemination and the opportunity to apply these techniques to live animals.

AGRI 2411 Artificial Insemination--Swine

The methodology and theory of artificial insemination applied to swine animals. A weekend course involving a review of the reproductive anatomy and physiology of swine animals, the proper procedures for storage and handling of semen, preparation of the female for insemination and the opportunity to apply these techniques to live animals.

AGRI 2421 Artificial Insemination--Sheep

The methodology and theory of artificial insemination applied to sheep animals. A weekend course involving a review of the reproductive anatomy and physiology of sheep animals, the proper procedures for storage and handling of semen, preparation of the female for insemination and the opportunity to apply these techniques to live animals.

AGRI 2423 Introductory Equine Management

The course is designed to provide information that will aid the horse users in improving the management, care and handling of horses for pleasure and work.

AGRI 2431 Livestock Judging

Principles of live animal evaluation and the techniques for communicating the ideal concepts of selection of both market and breeding animals. Participation in competitive livestock judging contests is required and is subject to academic eligibility. Prerequisite: AGRI 1124 Introduction to Animal Science or concurrent enrollment.

AGRI 2450 Special Problems in Agriculture

Supervised study in Agriculture.

AGRI 2460 Agricultural Internship

Internship of various disciplines of agriculture for career determination. Experiences with actual businesses in agriculture to allow the student to investigate the specific job requirements and work environment involved with a particular sector of agriculture. Report must be completed at end of internship.

AGRI 2523 Introduction to Sheep Production and Management

A study of all aspects of sheep production including, but not limited to, managing nutrition, production, selection, reproduction, lambing, health, shearing, exhibition preparation, and showmanship. Students will have hands-on training throughout the course and will opportunity to exhibit sheep as members of the NOC Sheep Show team at various national exhibitions. Prerequisite: AGRI 1124 Introduction to Animal Science.

Anthropology

ANTH 2353 General Anthropology

An introduction to the field of anthropology emphasizing human genetics, Old World archaeology and the distribution of various populations around the world. (Meets requirement for humanities elective)

ANTH 2363 Native American Culture

This course presents an overview of Native American culture in the United States. Art, history, literature, religion, law and federal Indian policy are covered. It is designed for those desiring to learn about America's Native cultures both before and after European contact. Prejudice, Race and identity issues are covered in order to acquaint students with how these factors influence our ability to understand cultural differences. (Meets requirement for humanities elective)

Art

ART 1103 Introduction to Film & Video

The course will provide a critical study of film as an art form and a reflection of modern culture. (Meets requirement for humanities elective)

ART 1113 Art Appreciation

The study of art from a variety of different backgrounds and cultures as both product and process. Aesthetic judgment making in evaluation of art from different times and places is stressed. (Meets requirement for humanities elective and International Dimension)

ART 1193 Ceramics I

Ceramics I covers a variety of building techniques, glazing and ceramics terminology, including surface decoration and firing processes.

ART 1203 Art History Survey I

Art History Survey I is a study of the arts, artists and their cultures from Prehistoric Man through the Early Renaissance. (Meets requirement for humanities elective)

ART 1303 Art History Survey II

Art History Survey II is a study of arts, artists and their cultures from the Early Renaissance to the present. (Meets requirement for humanities elective)

ART 1313 Drawing I

Drawing I will develop the students' understanding of the basic concepts of drawing and their powers of observation. Students will work with various media, exploring the basic elements of shape, line, proportion, value and space while utilizing a variety of sources and environments.

ART 1323 Drawing II

A continuation of Drawing I with emphasis on composition, color, development of ideas and the complex use of drawing mediums and materials.

ART 1433 Fundamentals of Two-Dimensional Art

A study of two-dimensional design and application of art elements (shape, line, color, value, composition, space, form) in a variety of materials.

ART 2103 Film as Art

Students will explore the principles of filmmaking (film style and narrative structure) through observation and written analysis of contemporary film.

ART 2113 Figure Drawing I

Figure Drawing I includes the study in gesture and finished drawings of the model. Emphasis will be placed on pose, composition, a variety of media and the study of human anatomy. Students are encouraged to develop personal and expressive drawings.

ART 2193 Ceramics II

Advanced techniques in wheel-thrown forms, hand building and surface decoration. Participation in glaze formulating and supervised firings.

ART 2213 Figure Drawing II

Figure Drawing II will continue to develop a study in gesture and finished drawings of the model. Students will further their skills in use of media and papers.

ART 2333 Sculpture I

Sculpture I is a creative approach to sculpture techniques and form exploration using a variety of media, stressing the development of technical and conceptual skills.

ART 2433 Sculpture II

A continuation of ART 2333 Sculpture I, using a variety of media and advanced techniques to complete a series of studio assignments.

ART 2440 Supervised Study- Drawing

Independent study.

ART 2450 Supervised Study- Art

Independent study.

ART 2460 Internship in Art**ART 2501 The Human Figure**

A study of form, shape and texture and how light plays a critical role in photographing and drawing the human figure. Recognized as a fundamental challenge for the artist is the ability to depict the human figure in realistic and abstract ways.

ART 2563 Fundamentals of Three-Dimensional Art

A study of three-dimensional design and application of art elements using a variety of materials and processes. Students will engage in critical analysis and complete a series of studio assignments.

ART 2611 Film Festival I (H*)

This class will view films and include a group discussion following each film. Content to be announced.

ART 2621 Film Festival II (H*)

This class will view films and include a group discussion following each film. Content to be announced.

ART 2631 Film Festival III (H*)

This class will view films and include a group discussion following each film. Content to be announced.

ART 2641 Film Festival IV (H*)

This class will view films and include a group discussion following each film. Content to be announced.

ART 2651 Film Festival V (H*)

This class will view films and include a group discussion following each film. Content to be announced.

ART 2661 Film Festival VI (H*)

This class will view films and include a group discussion following each film. Content to be announced.

*Note: Up to 3 1-hour designated humanities seminars can be taken to meet the 2nd requirement for humanities elective, in addition to a humanities course designated as International.

ART 2713 Art For Digital Media

This course is designed to promote imaginative, individualistic and innovative approaches to mix traditional art skills with digital media. Students will develop a better understanding of color difference between traditional CMYK and RGB in digital media. Projects will include transferring traditional art in a digital format and creating digital art from traditional theories.

ART 2853 Painting I

Painting I will develop skills in opaque painting, stressing form and content, visual appreciation and individual expression. Still life, figure and landscape problems are included.

ART 2863 Painting II

A continuation of ART 2853 Painting I. Projects will stress form and content, visual appreciation and individual expression.

ART 2933 Watercolor Painting I

Watercolor I will develop skills in transparent water color painting, stressing form and composition, visual perception and individual expression.

ART 2943 Watercolor Painting II

A continuation of Water Color Painting I (ART 2933), with stress on form and composition, visual perception, individual expression and color theory.

ART 2951 Portfolio/Gallery Seminar

Preparation for graduate art exhibition: Poster design, portfolio and resume development, marketing strategies, art preparation, installation of art in the Eleanor Hays Art Gallery.

Astronomy (currently Enid-campus only program)**ASTR 1014 Survey of Astronomy**

The large-scale structure of the Universe and our place in it. The origin, evolution and general properties of planets, stars and galaxies are presented. Lab required. (Meets general education Physical Science requirement.)

ASTR 1503 Observational Astronomy

Primarily web-based content. Study of planets, stars, galaxies, and nebulae through observation, image acquisition, and data processing using the NOC telescopes and instruments. Images of objects of interest are obtained utilizing telescopes at the NOC Observatory and with remotely-operated telescopes. Collaborative projects conducted with students in other colleges and universities and mentoring K-12 students may be required. Students may not receive credit for both ASTR 1014 and 1503.

ASTR 1523 Planetary Science

Origin and evolution of the solar system. Origin and characteristics of terrestrial planetary atmospheres. Characteristics of gas giant planets and ice moons, asteroids and comets. Discoveries and characteristics of extra-solar planetary systems. Aspects of colonization. Recommended preparation: ESCI 1214 or GEOL 1114 (Meets general education Physical Science requirement.) Offered spring semester only.

ASTR 1533 Search for Life

Topics include various strategies involved in the search for extraterrestrial life, the origin and evolution of planets and processes necessary for life to develop on planets. Also presented are strategies for interplanetary and interstellar travel

and the exploration and colonization of space. (Meets general education Physical Science requirement.) Offered fall semester only.

ASTR 2563 Galaxies and Cosmology

The origin of matter, energy, and forces in the early universe. Characteristics of various types of galaxies. The large-scale structure of the universe. General relativity and concepts of curved space are presented.

(Meets general education Physical Science requirement.)

ASTR 2513 Observatory Methods

Techniques of using telescopes and astronomical instruments, astronomical data collection and processing. Concepts of optics, CCD imaging systems and procedures for photometry and spectroscopy are covered. A research project utilizing the NOC Observatory is required.

Biological Science

BISI 1114 General Biology

An introduction to the fundamental concepts and principles of molecular and cellular biology with emphasis on morphological and physiological processes of the plant and animal kingdom. Includes appropriate laboratory work and demonstrations to implement the fundamental principles of concepts learned in theory. (Meets general education Biological Science requirement.)

BISI 1124 General Biology for Majors

An in-depth study of the principles of biology with emphasis placed on the molecular and cellular components, metabolism, genetics, evolution, and ecology. Appropriate laboratory work and demonstrations will be added to implement fundamental principles and concepts learned in theory. This course is recommended for students majoring in Biology, Medicine--Pre-Professional, Pharmacy—Pre-Professional, Nursing—Pre-Professional, Veterinary Medicine—Pre-Professional, and those students who wish to take an advanced biology course. (Meets general education Biological Science requirement; students should enroll in either BISI 1114 or 1214, but not both.)

BISI 1214 Introduction to Environmental Science

This is an introductory course that emphasizes the impact of humans on the environment. A survey of a broad range of environmental issues from a scientific viewpoint emphasizing the study of the structure and function of ecosystems, basic ecological and thermodynamic principles with applications to air, water, and land; human demography, population growth, food supply, and energy issues; extinction; and alternative futures. Students will examine environmental problems and ascertain how social dynamics affect policy and the decision-making process. Includes appropriate laboratory work and demonstrations to implement the fundamental principles and concepts learned in theory.

Prerequisites: none required, however students are encouraged to complete BISI 1114 prior to enrollment in this course. (Meets general education Biological Science requirement.)

BISI 1314 General Botany

Introductory majors course covering plant growth, development, and reproduction from molecular, cellular, physiological, and anatomical aspects. Genetics, classification, economical, and environmental aspects will be surveyed including key concepts in biology. Includes appropriate laboratory work and demonstrations to implement the fundamental principles and concepts learned in theory. Prerequisites: none required, however students are encouraged to complete BISI 1124 General Biology for Majors prior to enrollment in this course. Offered fall semester only. (Meets general education Biological Science requirement.)

BISI 1414 General Zoology

Introductory majors course covering biological principles and concepts as related to the study of animals with emphasis on structure, function, behavior, and evolution. Topics include such areas as taxonomy and systematic anatomy and physiology, ecology, genetics, and evolution. Includes appropriate laboratory work and demonstrations to implement the fundamental principles and concepts learned in theory. Prerequisites: none required, however students are encouraged to complete BISI 1124 General Biology for Majors prior to enrollment in this course. (Meets general education Biological Science requirement.) Offered spring semester only.

BISI 2024 Entomology

Basic structure, function, and classification of insects and closely related animals. Coverage of insects in ecosystems and development of control programs that reduce reliance on chemical pesticides, including Integrated Pest Management. Lab will include identification and labeling of insects, and the procurement of an insect collection representing major orders. Prerequisites: BISI 1114 General Biology, BISI 1124 General Biology for Majors, or BISI 1414 General Zoology. Offered fall semester only.

BISI 2104 Human Anatomy

A single semester majors course with lab. A study of the microscopic and gross anatomy of the human body. Areas of emphasis will include cytology, histology, and organ systems. Includes appropriate laboratory work and demonstrations to implement the fundamental principles and concepts learned in theory, which includes dissection of non-human mammals. Prerequisite: BISI 1114 General Biology, BISI 1124 General Biology for Majors, or BISI 1414 General Zoology. (Meets general education Biological Science requirement.)

BISI 2124 Microbiology

Introductory majors course with a 3-hour lab per week. A survey of the Archeae, Monera, and Protozoans, with emphasis on their morphology, physiology, immunology, and disease aspects. Includes appropriate laboratory to emphasize techniques of staining, culturing and identification of pathogenic and nonpathogenic organisms. Designed for students in the pre-professional, paraprofessional and health occupation areas. Prerequisites: BISI 1114 General Biology, BISI 1124 General Biology for Majors, or BISI 1414 General Zoology, **and** CHEM 1014 Concepts of Chemistry or CHEM 1314 Chemistry I. *Students in a degree major requiring this course but not CHEM 1314 must have instructor approval prior to enrolling in this course. (Meets general education Biological Science requirement.)

BISI 2204 Human Physiology

A single semester majors course with lab. Study of the functions of the human body. Emphasis includes cytology, organ systems and the interrelationships of the systems. Includes appropriate laboratory work and demonstrations to implement the fundamental principles and concepts learned in theory. Prerequisite: BISI 1114 General Biology, BISI 1124 General Biology for Majors, or BISI 1414 General Zoology **and** CHEM 1014 Concepts of Chemistry or CHEM 1314 Chemistry 1. (Meets general education Biological Science requirement.)

BISI 2214 Human Anatomy and Physiology

An introduction to the anatomical and physiological principles and concepts as related to the human body. A course designed for 2-year nursing students and students enrolled in cooperative Career Tech programs. Includes appropriate laboratory work and demonstrations to implement the fundamental principles and concepts learned in theory which includes dissection of nonhuman mammals. Prerequisites: BISI 1114 General Biology, BISI 1124 General Biology for Majors, or BISI 1414 General Zoology. (Meets general education Biological Science requirement.)

BISI 2324 Comparative Vertebrate Anatomy

An investigation of early development, phylogeny, anatomy, morphology, and evolution of vertebrates, including laboratory studies involving extensive vertebrate dissections. Prerequisites: BISI 1414 General Zoology.

BISI 2403 Introduction to Wildlife Conservation

A survey course on the many aspects of wildlife conservation. Principles of conservation and management, ecology, mathematical modeling, law enforcement, endangered species preservation, genetic diversity conservation, predator management, and inter-governmental agencies relationships are emphasized. Required field trips. Prerequisites: BISI 1114 General Biology, BISI 1124 General Biology for Majors, BISI 1314 General Botany, or BISI 1414 General Zoology. Offered spring semester only.

BISI 2450 Supervised Study in Biology

Independent study course in the biological sciences for specific and advanced fields of study that utilize one or more components of the scientific method in conducting field or laboratory research: literature review, development of methodologies, data collection, data analysis, the writing of a report/scientific paper, and/or giving a presentation. Consent of instructor required. Credit 1 to 3 hours.

BISI 2460 Internship in Biology

Business Management

BMGT 1213 Spreadsheets

An overview of all aspects of Spreadsheet software, from the basics to extensive coverage of macros and other advanced commands. Classroom curriculum will include hands-on experience with each particular concept. Presents the fundamental principles and functions of all aspects of marketing including: consumer behavior issues, products, pricing, distribution, promotion, research, strategy, and trends.

Traditionally offered in the Spring semester only.

BMGT 1231—Excel Seminar

An introduction to the basic aspects of Microsoft Excel.

BMGT 1321—Word Seminar

An introduction to the basic aspects of Microsoft Word.

BMGT 1431—Access Seminar

An introduction to the basic aspects of Microsoft Access.

BMGT 1711—PowerPoint Seminar

An introduction to the basic aspects of Microsoft PowerPoint.

BMGT 2143 Marketing

Course presents the fundamental principles and functions of marketing; the institution, processes and problems involved in transferring goods from producers to consumers. Units include communications, means and methods of marketing and trends in marketing functions. Field study and conferences are required with the course. Traditionally offered in the spring semester only.

BMGT 2163 ECommerce/Internet Marketing

An overview of electronic marketing concepts in marketing products, including websites, data collection, and electronic communications and interfaces. *Traditionally offered in the Spring semester only.*

BMGT 2233 Human Resource Management

An introduction to the development, application, and evaluation of policies, procedures, and programs for the recruitment, selection, development, and utilization of human resources in an organization. *Traditionally offered in the Spring semester only.*

BMGT 2240 Business Internship

A course that consists of interrelated work between the student and business or industry in which students combine classroom theory with on-the-job training or observation. *By instructor permission only.*

BMGT 2263 Principles of Management

An introduction to the fundamental principles of management such as planning, organizing, leading, and controlling the basic processes of a firm.

Business Administration

BSAD 1103 Introduction to Business

An introduction to business, survey of basic functions, principles and practice of business in the nation and the world.

BSAD1113 Digital and Financial Literacy

An introduction to the basic financial issues relevant to the individual with emphasis on budgeting, insurance, banking, credit usage and investing. Various software applications (word processing, spreadsheet development, presentation and money management tools) are utilized to emphasize the importance and connection of financial management to the current digital age.

BSAD 1203 Introduction to Entrepreneurship

An introduction to the opportunities and challenges facing entrepreneurs in a dynamic marketplace. Topics include the analysis of personal strengths and weaknesses as they relate to launching an entrepreneurial career, an overview of the study of entrepreneurship, the principles of recognizing and exploiting viable business ventures, and foundational concepts of planning, financing, starting and managing a new business through the creation of a business plan.

BSAD 2113 Business Communications

A survey course of communication skills needed in the business environment. Course content includes writing memoranda, letters, reports, resumes, and electronic messages; delivering oral presentations; and developing interpersonal skills. Critical thinking and problem solving skills are emphasized. Development of these skills is integrated with the use of technology. Prerequisite: English Composition I (ENGL 1113) and typing ability.

BSAD 2313 Business Law

Course presents a history of the development of business law. Topics covered include general law of contracts, negotiable instruments, insurance, employer and employee, principal and agent and ethical issues in business decision making.

BSAD 2323 Real Property Law

A study of the principles of law applicable to real property transactions and conveyances, title and forms of land ownership, legal descriptions, recording requirements, closing procedures, liens and causes of action pertaining to real property. Emphasis is on ethical transference of rights.

Basic Science

BSCI 0123 Basic Science

Designed to introduce the student to the principles of basic physical and biological science. Basic science emphasizes laboratory techniques and math skills necessary in college-level science courses.

Chemistry

CHEM 1014 Concepts in Chemistry

An introduction to the chemical nature and properties of inorganic compounds. Topics presented include a historical development of theoretical principles, atomic and molecular structures, inorganic nomenclature, states of matter, properties of gases and solutions, acids/bases and salts, chemical equilibrium, nuclear and chemical reactions and descriptive chemistry of selected elements. Laboratories are designed to reinforce theory principles. Prerequisite: Must have completed College Algebra or be concurrently enrolled. (Meets general education Physical Science requirement.)

CHEM 1314 General Chemistry I

Basic concepts of chemistry, including physical and chemical properties, formulas, equations, nomenclature, atomic structure, gases, thermochemistry, periodicity and bonding. Suitable for students in engineering, pre-medicine, physical sciences, and biological sciences. Laboratories are designed to reinforce theory principles. Prerequisite: Completion of or concurrent enrollment in MATH 1513 College Algebra. (Meets general education Physical Science requirement.)

CHEM 1414 General Chemistry II

Continuation of General Chemistry I including solutions, solids and liquids, chemical kinetics, equilibria, acid-base concepts, solubility, oxidation-reduction and free energy concepts. Laboratories are designed to reinforce theory principles. Prerequisite: Chemistry I (CHEM 1314). (Meets general education Physical Science requirement.) On Enid campus, this course is offered spring only.

CHEM 2014 Process Organic Chemistry

Terminal course in organic chemistry covering general principles, methods of preparation, reactions and uses of both acyclic and cyclic compounds. Recommended for Process Tech majors, agriculture majors, home economics majors, pre-pharmacy and pre-veterinary medicine. Laboratories are designed to reinforce theory principles. Prerequisite: CHEM 1014 Concepts in Chemistry or higher level chemistry course. (Meets general education Physical Science requirement.) Offered spring semester only.

Child Development

CD 1023 Introduction to Early Childhood Education

This course covers the history and realities of the early childhood profession. Students will cover the legal and ethical responsibilities that early childhood professionals must follow. Students will be able to identify best practices for developmentally appropriate environments for children in a variety of settings. They will be able to evaluate goals and objectives for early childhood settings. This course will meet competency goals number I, II, V and VI.

CD 1043 Children's Music, Movement, & Art

Emphasizes the acquisition of knowledge of and the ability to develop and implement learning experiences, using the concepts and tools of inquiry in music, movement and creative arts and perpetual motor development. Understanding and appreciating the role of the arts in the development of young children, providing them with meaningful experiences in the arts is also covered. Course combines class-room instruction, hands on activities and observations of young children in group care to develop competence in the design and implementation of curriculum and instructional strategies related to music, movement and creative arts.

CD 1053 Children's Health, Safety, & Nutrition

Students will be able to identify and implement best practices for health, safety and nutrition in a variety of early childhood settings. Incorporating policies and procedures for early childhood settings along with national and state standards will be discussed. This course will meet competency goals number I, II, V and VI.

CD 1083 Curriculum Development

This course covers how to create, evaluate, and select developmentally appropriate materials, equipment and environments that support children's learning in an early childhood setting. The course will focus on the design, implementation of curriculum with emphasis on developmentally, individually, culturally and creatively appropriate practices. Students will demonstrate the planning process, determine concepts and skills with assessment and evaluation based on different ages and individual differences.

CD 2013 Behavior, Development and Guidance of Children

This course will cover child development from birth to eight years of age emphasizing the causes of behavior in young children in a child care setting will be introduced. Strategies necessary in implementing positive child guidance techniques within an environment of acceptance and positive regard for all children and families will be explored. Students will be able to demonstrate an ability to communicate and work collaboratively with families. This course will meet competency goals number III, IV, V and VI.

CD 2023 Children with Special Needs

Emphasis on implementing practical strategies and inclusive practices. Provide understanding of conditions, which affect children's development and learning, including risk factors, developmental variations and developmental patterns of specific disabilities. Content covers how to create and modify environments and experiences to meet individual needs of children with disabilities, developmental delays and special abilities. Course also includes opportunities to evaluate and demonstrate appropriate use of technology with young children, including assistive technologies. Knowledge of state and federal legislation related to providing services for children with disabilities and their families is also emphasized. Course combines lecture, hands-on and observations.

CD 2033 Children's Language Arts & Literature

This course will explore language development for children birth to eight years, including the interrelationships among listening, speaking, pre-writing and pre-reading skills. The student will be able to observe and outline developmental milestones of language development and communication in children. Focus on the educators' and families' roles in promoting emergent literacy in a developmentally appropriate setting. The student will review children's literature and be design effective techniques to enhance language development with emphasis on a multicultural approach.

CD 2043 Child & Family in Society

This course focuses on an understanding of how children develop within the context of the family and society. Students will demonstrate their knowledge of how diverse families, an early childhood setting and society can work together for the optimum development of children, with emphasis on American subcultures. Methods for communication, parent involvement within these settings will be discussed.

CD 2083 Child Development Practicum

The student will develop individual records of planning, implementation, parent/teacher conferences within an early childhood setting. Students will do observations of a variety of early childhood settings identifying developmentally appropriate environments, inclusiveness, equipment, activities as well as health, safety. Students will also demonstrate proficiency through instructor observation in an early childhood setting.

CD 2113 Child Development in the Human Lifespan

The study of development across the lifespan from conception to death. The principles of development, developmental theories, and the dynamics of development through a global multicultural approach within the context of the family, society, and culture.

CD 2143 Preschool Programming

This course covers how to create, evaluate, and select developmentally appropriate materials, equipment and environments that support children's learning specific to children three years to six years. The course will focus on the design, implementation of curriculum with emphasis on developmentally, individually, culturally and creatively appropriate practices. Students will demonstrate the planning process and determine concepts and skills with assessment and evaluation based on preschoolers and their individual differences.

CD 2243 Infant & Toddler Programming

This course covers how to create, evaluate, and select developmentally appropriate materials, equipment and environments that support children's learning specific to children's birth through 36 months. The course will focus on the design, implementation of curriculum with emphasis on developmentally, individually, culturally and creatively appropriate practices. Students will demonstrate the planning process and determine concepts and skills with assessment and evaluation based on infant and toddlers and their individual differences.

CD 2313 Administration & Management of Child Care Programs

This course is an overview of administration of an early childhood program. Setting goals and developing objectives for staff recruitment, personnel policies and supervision will be discussed. State and national standards, along with how to implement developmentally appropriate practice, will be addressed. Students will study recordkeeping along with development and implementation of a budget.

Computer Science

CS 1013 Visual BASIC Programming

An introduction to Visual Basic programming. This course includes graphical user interface design, event driven programming, tool box controls and properties, basic control structures and dynamic arrays. *Traditionally offered in the Fall semester only.*

CS 1113 Computer Concepts

An introduction to the basic concepts of computer technology in a business environment along with the fundamentals of microcomputer business applications. Hands-on use of microcomputers will introduce computer operating systems; file management; Internet; use of system tools; word processing, spreadsheet, database and presentation software.

CS 2113 Pascal Programming

Using the computer language PASCAL, structured methods are introduced covering basic control structures, files, input/output and arrays. Prerequisite: College Algebra (MATH 1513) or concurrent enrollment.

CS 2123 Business Technologies and Applications

Computer concepts, terminology and soft-ware applications. An overview of hardware and software components, file structures, management information systems, futuristic trends, database management systems, system analysis and design and data communications. Also included is an introduction to database, spreadsheet and word processing software application packages and application programming. Prerequisite: CS 1113 Computer Concepts or BSAD 1113 Digital and Financial Literacy.

CS 2223 COBOL Programming

Basic concepts of the business-oriented computer language are presented with students writing debugging and testing programs dealing with business applications. Various program structures and techniques are covered including table manipulation and sequential file access methods. Prerequisite: a Computer language.

CS 2243 Advanced COBOL Programming

A continuation of COBOL Programming that includes the topics of sequential and relative file access methods and updating, indexed sequential file access methods including sequential and random updating, advanced table handling routines, intrinsic sorts, segmentation and the use of subprograms.

Prerequisite: CS 2223 COBOL Programming.

CS 2303 Java Programming

An overview of programming using the Java language plus practical object-oriented principles focusing on how to develop Java applications. *Traditionally offered in the Spring semesters only.*

CS 2313 Programming with C++

An overview of programming using the language C++ that includes fundamental control structures, files, input/output, and arrays. *Traditionally offered in the Fall semesters only.*

Criminal Justice Administration

CRMJ 1113 Introduction to Criminal Justice

This course is a survey of the American Criminal Justice System to include all components, police, prosecution, courts and corrections. It defines each component's function. The course also examines one component's effect on the other components through historical development and modern concepts.

CRMJ 1223 Criminal Law-Administration of Justice

This course is the study of substantive criminal law through both general and specific elements of the major crimes of our society. Offered fall semester only.

CRMJ 1333 Criminal Evidence

This course is the study of the basic rules of evidence applicable to criminal law and criminal procedure. The course also explains the exceptions to those rules and procedures. Offered spring semester only.

CRMJ 1523 Introduction to Corrections

This course analyzes the history of, theories of, and descriptions of the corrections system of justice. Contemporary correctional practices and functions of agencies and personnel will be presented and discussed to identify best practices.

CRMJ 2113 Criminal Investigation

This course explains the techniques and skills of the investigation of crimes that affect our society. This process includes fact gathering, testing of hypotheses and the problem of proof. Prerequisites: CRMJ 1223 Criminal Law-Administration of Justice and CRMJ 1333 Criminal Evidence. Offered spring semester only.

CRMJ 2223 Organization and Administration of Law Enforcement

This course is the study of the management and structure of the American Police System. This is done through the historical and modern concept of police management and organization. It also explores the problems that the police manager must overcome.

CRMJ 2233 Juvenile Delinquency

This course studies the organization, functions and jurisdiction of juvenile agencies and juvenile court. It also includes the study of the special problems juveniles face in our society.

CRMJ 2401 Crime Scene Photography Seminar

This seminar is a review of the basics of criminal investigation and how photography plays an important part in that process. It is also a review of photographic principles and the specifics for photo-investigative techniques. Several demonstrations are given. This seminar is only offered in the spring semester.

CRMJ 2450 Supervised Study in Criminal Justice

Credits in this course area are usually confined to student independent studies and practicum programs.

Learning Assistance

DEVS 0123 Learning Assistance

Learning Assistance is a course designed to assist students with a specifically identified learning disability. Enrollment is permitted only with permission of a counselor.

DEVS 1101 or DEVS 1102 Academic Success Strategies

This course is designed to assist students who have been suspended and readmitted under probation with information to assist them in determining the behaviors that led to their suspension and the behavioral changes necessary to succeed in college. It includes information on goal setting, time management, study skills, test taking, and the academic community.

DEVS 1112 World of Work

Assists students in exploring career options through increased understanding of self and expanded knowledge of occupational information. Includes a study of the decision-making process and a look at the present and future changing world of work.

Digital Media, Animation and Design

DMAD 1113 Introduction to Digital Video – 2D Animation

A study of time based animation, introduces the student to basic concepts and theories of compositing, sequencing, editing, rendering and organization. Students will also learn how to communicate ideas and information through the use of these elements.

DMAD 1123 Web Design - Dreamweaver

This course introduces students to web layout and design techniques. Students will learn how to create websites, with Macromedia's Dreamweaver software and demonstrate creative interface design, use visually compelling graphics, convenient navigation and functional site organization. Students will progress through the various stages of web site development, from preparation and design to implementation, maintenance and continual improvement. Students will evaluate the difference between a well-designed and a poorly-designed web site.

DMAD 1133 Introduction to 3D Animation - Maya

This course will introduce students to the basic concepts and possibilities of computer animation using Maya Unlimited. Students will develop a basic understanding of Maya as a 3D program, along with such general animation concepts as modeling, texturing, animation and basic rendering. The goal of this class is to build familiarity with the tools, terminology and ideas involved in the popular 3D world.

DMAD 1142 Media Ethics

This course will explore the current ethical and legal issues that apply in today's changing environment of entertainment and multimedia. Students will discuss the morality of P2P distribution, copyright issues and the rights of intellectual

property. Students will develop a better understanding of the responsibility that they face in order to make an ethical decision pertaining to specific issues.

DMAD 1213 Graphic Design - Photoshop

This course trains students in an environment that balances visual art with state-of-the-art software. This class emphasizes the design of visual communications where students acquire concepts and problem-solving skills as they relate to the marketing of products through graphic and motion graphic design. Prerequisite: Introduction to Digital Video-2d Animation (DMAD 1113)

DMAD 1223 Intermediate Web Design - Flash

Students will use Macromedia Flash to learn how to integrate video, text, audio and graphics into an interactive web site. The students will learn how to create content and apply this to their web site development skills through a variety of projects along with interactive marketing and presentations. Prerequisite: Web Design-Dreamweaver (DMAD 1123).

DMAD 1233 Digital Filmmaking

This course is an introduction to the art and techniques of digital cinema combined with multimedia technology. Students will be exposed to a variety of software that incorporates interactivity and digital video. Over the course of the semester, teams will work through the three phases of a digital film production: pre-production, production and post-production. Emphasis is placed on the short form video and the manipulation of footage to include graphic and 3D elements, composited imagery and other visual effects. Prerequisite: Introduction to Digital Video-2D Animation (DMAD 1113) and Introduction to 3D Animation-Maya (DMAD 1133).

DMAD 2311 Digital Audio Production

This course will focus on the popular creation of audio and editing audio digitally for personal or professional use. Some examples include audio for mixing music, stacking sounds, commercials and DVD's.

DMAD 2313 Motion Graphics I

By adding concepts of motion and timing to text and graphics, students will create dynamic graphics for broadcast video, titling, animation and interactive applications. Particular emphasis will be placed on the integration of motion messages with graphics, video and still images for the on-screen environment and spot advertisements. DMAD majors only.

DMAD 2321 Video Editing Basics

This seminar will focus on basic editing techniques used in the professional industry. Student will learn how to digitize footage, make in and out points, trim clips and edit clips in a timely manner. (For non DMAD majors only)

DMAD 2323 3D Animation II - Maya

This course builds on the concepts and skills introduced in Introduction to 3D Animation. Students will continue to develop practical knowledge of 3D animation and expand their skills using Maya for intermediate level polygon and NURBS modeling, texturing, animating and includes an introduction to rigging. DMAD majors only.

DMAD 2331 DVD Basics

This course will focus on the practical use of the interface, tool set, navigation and menu options for authoring DVD's for home or business use. (For non DMAD majors only).

DMAD 2333 3D Animation III - Maya

This course further develops the student's skills in Maya. This course will emphasize more advanced studies on texturing, proportions, movement, focus points and light intensity to gather more experience to develop a time/space relationship of a 3D conceptual model. DMAD majors only.

DMAD 2343 Texturing - Photoshop

This course will focus on different texturing methods that include UV mapping and creating custom color, bump, specular, reflection and other texture maps for 3D models created by the students in previous projects assigned. DMAD majors only.

DMAD 2353 Digital Video II – Post-Production

This course explores short-form video and its relationship to new digital technology, focusing specifically on digital post-production. The projects for this course are theme-based and provide students with a conceptual root by which to develop an artistic timing skill necessary in the field of Digital Media. This course will employ various media types such as motion graphics, motion menus, animations, sound, and video into an integrated, interactive Digital Video Disc. Students will complete the course by implementing their final rendered project as a DVD demonstration reel. DMAD majors only.

DMAD 2363 Motion Graphics II

This course extends the skills and concepts from Motion Graphics I by teaching advanced features such as expressions, compositing and visual effects. Students will also incorporate 3D elements from Maya into After Effects for their specified projects. DMAD majors only.

DMAD 2373 Motion Graphics III

This course further expands the advanced visual effects techniques used in today's production spots and movies. Students will explore advanced greenscreen techniques, compositing issues, and color correction of footage. A systematic process of identifying specific requirements will be developed between the student and instructor incorporating group projects. *DMAD majors only*

DMAD 2383 Multimedia Project

This capstone project brings all of the separate multimedia elements together into a comprehensive multimedia package including web, video, sound, 2D and 3D animation. These projects will be structured to simulate real-world, commercial multimedia production. Major projects will include the student's personal biography for an interactive DVD and on-line portfolio. DMAD majors only.

Earth Science

ESCI 1214 Earth Science

Subject matter content is composed of general concepts taken from the science areas of geology, astronomy and meteorology. A combination lecture, demonstration, discussion and laboratory experience. A general education course which fulfills the physical science requirement. (Meets general education Physical Science requirement.)

ESCI 2450 Supervised Study in Science Independent study course in the earth sciences for specific and advanced fields of study that utilize one or more components of the scientific method in conducting field or laboratory research: literature review, development of methodologies, data collection, data analysis, the writing of a report/scientific paper, and/or giving a presentation. Consent of instructor required. Credit 1 to 3 hours.

Economics

ECON 2113 Macroeconomic Principles

An introduction to the functioning of the aggregate economy. Topics include basic principles of demand and supply, national income accounting, business cycles, employment, inflation and price stabilization, fiscal policy, monetary policy and aspects of the international trade. Prerequisite: MATH 1483 Math Functions or MATH 1513 College Algebra or concurrent enrollment with instructor permission.

ECON 2123 Microeconomic Principles

An introduction to the specific components of economic systems with emphasis given to basic principles of demand and supply, elasticity, utility analysis, marginal analysis, market structures, cost of production, factor prices, government regulations and international trade. Prerequisite: MATH 1483 Math Functions or MATH 1513 College Algebra or concurrent enrollment with instructor permission.

English

ENGL 0123 Basic Composition

Designed to introduce or review sentence structure, punctuation and writing skills. Basic composition prepares students to master the skills necessary for writing effective college-level papers.

ENGL 1113 English Composition I

This course includes the fundamentals of expository writing with emphasis on structure, development, sentence style and grammatical correctness.

ENGL 1213 English Composition II

This course includes a review of the fundamentals of expository writing with emphasis on argumentation, research techniques and style, used in literary and personal writing. Prerequisite: ENGL 1113 English Composition I or equivalent.

ENGL 1223 Technical Writing

This course emphasizes clarity, conciseness, correctness and accuracy that address technical and general audiences. Students will write letters, a proposal, a formal report and other documents that relate to technical topics in their major fields. Prerequisite: ENGL 1113 English Composition I or equivalent.

ENGL 1450 Language Arts Seminar

This course includes various fields of English studies, including literary travels, book discussions, poetry readings and seminars. This course is open to change according to the various needs of students and the discretion of Language Arts instructors. Credit hours earned will depend on the specific topic and study involved.

ENGL 2233 English Grammar for Educators

This course will review usage and mechanical guidelines through study of diagrams and in-class drills suitable for K-12 instruction.

ENGL 2413 Introduction to Creative Writing

This course includes the study and practice of creative writing as it pertains to poetry, fiction, and creative nonfiction, both from a critical and personal perspective. (Meets humanities requirement)

ENGL 2423 Introduction to Fiction Writing

A practical study of the techniques of fictional narrative, with particular emphasis on the development of narrative voice. Students will learn to identify specific rhetorical devices professional writers employ and apply those techniques to their own original works of fiction. Prerequisites: ENGL 1113, Composition I, and ENGL 2413, Introduction to Creative Writing, or permission of the instructor.

ENGL 2433 Introduction to Poetry Writing

A thorough overview of the basics of writing both traditional and experimental verse. Students will study genres, forms, sonic devices, and rhetorical strategies, with an emphasis on developing a unique voice through workshops and guided study of models both old and new. Prerequisites: ENGL 1113, Composition I, and ENGL 2413, Introduction to Creative Writing, or permission of the instructor.

ENGL 2443 Introduction to Screenwriting

A practical study of the techniques of writing for film and television, with particular emphasis on the development of individual voice. Students will learn to identify specific rhetorical devices professional screenwriters employ and apply those techniques to their own original scripts. Prerequisites: ENGL 1113, Composition I, and ENGL 2413, Introduction to Creative Writing, or permission of the instructor.

ENGL 2450 Supervised Study in Language Arts

This course involves a one-on-one discussion and study with a language arts instructor to meet a student's specific language arts need.

ENGL 2453 Writing Creative Nonfiction

A practical study of the techniques of contemporary nonfiction, with particular emphasis on the development of individual voice. Students will learn to identify specific rhetorical devices professional writers employ, and apply those techniques to their own original works of nonfiction. Prerequisites: ENGL 1113, Composition I, and ENGL 2413, Introduction to Creative Writing, or permission of the instructor.

Pre-Engineering

ENGR 2111 Engineering Mechanics I

Laboratory experience, which serves to combine the elements of theory and practice using open-ended problems and engineering design. Problem solving methods used in the study of Statics, and the application of computers for technical calculations, problem solving, data acquisition and processing. Prerequisite: Concurrent enrollment in ENGR 2113 Statics.

ENGR 2113 Statics

Topics include: resultants of force systems, static equilibrium of rigid bodies, statics of structures, distributed forces, centroids, internal forces, friction and moment of inertia. Shear and moment diagrams. Prerequisites: PHYS 2014 Engineering Physics I and MATH 2145 Calculus I. Concurrent enrollment in ENGR 2111 is required. Offered fall semester only.

ENGR 2121 Engineering Mechanics II

Laboratory experience, which serves to combine the elements of theory and practice using open-ended problems and engineering design. Problem solving methods used in the study of Dynamics, and the application of computers for technical calculations, problem solving, data acquisition and processing. Prerequisite: Concurrent enrollment in ENGR 2123 Dynamics.

ENGR 2123 Dynamics

Analyzing the kinematics and kinetics of particles, systems of particles and rigid bodies from a Newtonian viewpoint utilizing vector algebra and calculus. Also analyzing situations using the work-energy and impulse-momentum principles. Prerequisite: ENGR 2113 Statics.

ENGR 2433 Thermodynamics

The solving of problems related to the study of the first and second laws of thermodynamics, ideal gases: mixture of ideal gases; and heat pump, vapor and gas-powered systems and refrigeration cycles. Use of algebra and calculus to solve equations of state. Prerequisites: CHEM 1314, General Chemistry I, and PHYS 2014, Engineering Physics I. Enrollment in a one credit hour lab is also required. Offered spring semester only.

ENGR 2533 Electrical Systems

Topics include electrical circuit components: AC and DC circuit analysis; mesh and nodal formulation of network equations; transient and steady state response to sinusoidal and step sources; Ohm's and Kirchoff's Laws; Thevenin and Norton circuits; source transformations; energy, power, Laplace Transform and matrix representations.

Geography

GEOG 2243 Fundamentals of Geography

This introductory course addresses five fundamental themes in geography: location, place, relationships within place, migration and regions. Because geography knowledge is important to an understanding of important national and international problems addressed in the daily news, current events will be included in this class.

GEOG 2253 World Regional Geography

A regional study of the world with emphasis on socioeconomic, cultural and environmental conditions found within each region. Additional topics will cover landscape-culture, political and historical events necessary to better understand each region. Maps and vocabulary are an essential part of this class.

Geology

GEOL 1114 Physical Geology

The study of the physical systems of earth including mountain building, plate tectonics, volcanism, earthquakes, seafloor spreading, erosion and deposition. Laboratory emphasis is on the study of rocks, minerals, geological and topographical map reading and the usage of standard geological equipment. (Meets general education Physical Science requirement.)

GEOL 1124 Historical Geology

The study of the earth's fossil record as found in the geological strata and rock record of the planet. Focus will be placed on the understanding of relative and radiological dating methods, the study of ancient environments and the latest theories from the fields of paleontology. Laboratory work includes fossil identification and study of the time scale.

Global Studies

GLBL 2001: Introduction to Study Abroad

This course is designed to address issues of travel and study abroad to enable students to get the most out of their international experience. Students will gain insight on various travel and study abroad resources that are available, current issues related to student travel, and will research specific information on the country or region relevant to their travels. Prerequisite: instructor permission and enrollment in a NOC study abroad program. (typically offered in an 8-week format)

GLBL 2113: Global Studies in Humanities

A faculty-supervised studies course involving a student researching a particular country or region's cultural fields such as literature, music, arts, anthropology, religion, and/or historical and philosophical ideals. Prerequisite: instructor permission (Meets requirement for humanities elective and International dimension)

GLBL 2123: Global Culture and Society

A faculty-supervised studies course involving a student researching a specific cultural field in a particular country or region. Students may examine cultural fields such as literature, music, visual and performing arts, anthropology, religion, language, history, and philosophy. Prerequisite: instructor permission (Meets requirement for humanities elective and International Dimension)

GLBL 2133 Introduction to International Business Cultures

An introduction to the issues related to cross-cultural business practices. Students will examine all or several of the following areas of a specific country or region: intercultural communications and behavior, globalization, global business environments, historic or ideological impacts on business, and the influence of culture in the arena of global business. (Study abroad course requires instructor permission. Meets requirement for humanities elective and International dimension)

GLBL 2143: Introduction to Global Political Issues

A faculty-supervised studies course that will focus on various contemporary global political issues and their historical roots. Students will also examine key international organizations, institutions, and other actors as they relate to global political issues related to a specific country or region. Prerequisite: instructor permission (Meets requirement for International dimension)

History

HIST 1113 History of Ancient World Civilization

The course focuses on the history of the ancient civilizations of the world. Included is an overview of the historical development of politics, religion and society in civilizations that existed prior to 1500. The course provides a frame of reference with which to comprehend the principal events and eras in World history. (Meets requirement for humanities elective and designation for International dimension.)

HIST 1223 History of Modern World Civilization

The course focuses on the history of the modern civilizations of the world. Included is an overview of the historical development of politics, religion and society in the civilizations that have existed since 1500. The course provides a frame of reference with which to comprehend the principal events and eras in World history. (Meets requirement for humanities elective and designation for International dimension.)

HIST 1483 American History to 1877

An introductory survey spanning discovery of the new world, colonization, national development and concluding with the Reconstruction era.

HIST 1493 American History Since 1877

A general survey of the key individuals and many social, economic and political developments that have influenced and molded the nation from the end of the Reconstruction era to the present.

HIST 1713 History of Eastern Civilization

This course covers the history of the major regions of eastern civilizations including East Asia, South Asia, West Asia, and Africa. From pre-history to approximately 1700 A.D. the origins, development and evolution of these civilizations will be discussed. (Meets requirement for humanities elective and designation for International dimension.)

HIST 2113 History of Latin American Civilization

This course will study the development of the native populations of Latin America prior to and through the colonization process into modernity. The unique cultures of the people evident in traditions and art forms will be studied through the historical, political, economic, and anthropological perspectives. (Meets requirement for humanities elective and designation for International dimension.)

HIST 2323 Oklahoma History

A regional historical approach dealing with Oklahoma from the earliest time of European exploration to the present. Topics include the establishment of Indian Territory, allotments and homesteads, biographical studies, contemporary politics and an introduction to historical literature.

HIST 2421 Conspiracy Thought in American Politics (H*)

This course will examine conspiracy ideas which have manifested from the American Revolution, the Civil War and the assassinations of President John Kennedy and Martin Luther King. The seminar will examine the impact these and other conspiracy theories have made on the relationship between the people of the United States and their government.

*Note: Up to 3 1-hour designated humanities seminars can be taken to meet the 2nd requirement for humanities elective, in addition to a course designated as International.

HIST 2431 World Environmental History

World Environmental History is designed to enrich the student's understanding of environmental changes throughout history. The course begins with a description of the world as it existed at the end of the last ice age and chronologically comes forward to the present day. Topics included are the desertification of North Africa, the rising level of the Black Sea, the disappearance of the Aral Sea, the Dust Bowl of North America, the man-created disasters of Chernobyl, Three Mile Island, Love Canal and the controversy of global warming.

HIST 2450 Supervised Study in History

Independent study.

Health and Physical Education- Activity**HPEA 1121 Body Mechanics**

Theory and practice of aerobic and weight training activities with learning experiences designed to promote fitness assessment strategies with focus on diet, weight management, stress and other nutrition and health issues.

HPEA 1221 Weight Training

Instruction and participation in the use of free weights and various weight machines for the purpose of developing muscular strength and endurance.

HPEA 1231 Advanced Strength Training & Conditioning

This course will cover the essential principles of strength training and conditioning. It will also include instruction, demonstration and practical experience with free weights and various weight machines. Instructor permission only.

HPEA 1251 Team Sports I

The fundamental skills, team play, game strategy, rules and history of flag football and volleyball.

HPEA 1281 Team Sports II

Fundamental skills, team play, game strategy, rules and history of softball and basketball.

HPEA 1361 Individual Sports I

Fundamental skills, game strategy and rules of racquetball.

HPEA 1371 Individual Sports II

Brief history of each of the games is followed by instruction and practice in the fundamental techniques of badminton and aerial tennis.

HPEA 1401 Beginning Swimming

For non-swimmers. Adjustment to water, float, tread, standing dive and elementary lifesaving skills. Basic strokes: elementary back, American crawl, sidestroke, back crawl and breast stroke.

HPEA 1411 Intermediate Swimming

Review of beginning strokes and skills. Additional skills: surface dives, turns, underwater swimming and lifesaving assists. Additional strokes: overarm side, inverted breast and trudgens.

HPEA 1421 Life Guard Training

Senior lifesaving. Leads to the Red Cross life saving certificate. For swimmers who can swim 100 yards demonstrating the following fundamental strokes: elementary back stroke, crawl, side and breast stroke.

HPEA 1431 Water Safety Instruction

Lecture, demonstration, and practice in nine styles of swimming, diving, and lifesaving skills, as well as skill and knowledge in class organization and teaching techniques. Prerequisite: Hold a current American Red Cross Lifesaving Certificate.

HPEA 1441 Swimming Fitness & Water Exercise

A course designed to promote cardiovascular fitness, muscular strength and endurance, and flexibility through participation in rhythmic water exercise.

HPEA 1511 Cheerleading

Credit given for a full semester of participation in cheerleading and/or pom poms.

HPEA 1521 Outdoor Recreation**HPEA 1531 Introduction to Self Defense****HPEA 1541 Karate****HPEA 1551 Physical Fitness**

Will provide improvement of muscular strength and endurance in the major muscle groups of the body through progressive resistive exercise. Emphasizing development of cardiovascular fitness.

HPEA 1561 Yoga**HPEA 2021 Beginning Golf**

Development of fundamental skills and study of rules; history, general rules and specific rules of match and stroke play with an analysis of fundamentals; practice in techniques of pitching, driving and putting.

HPEA 2031 Beginning Bowling

The fundamental skills of bowling instruction in stance, approach, delivery, aiming and follow through. Practice in etiquette, scoring terminology and forms of competition.

HPEA 2220 Lifetime Sports

An introduction to various recreational type sports that will have lifetime value.

HPEA 2221 Intermediate Golf

Review of beginning skills; practice in putting, chipping, iron play and woods; detailed study of rules and etiquette; strategies of identifying and managing Golf Course Challenges. Prerequisite: HPEA 2021 Beginning Golf or equivalent knowledge of grip, stance, alignment and swing.

HPEA 2281 Beginning Tennis

Development of fundamental skills of tennis and study of the rules and strategy; history, rules and scoring with an analysis of fundamentals; practice in techniques of serving, forehand and back-hand strokes, lobbing and court positioning, including that of doubles play.

HPEA 2381 Cardio Circuit Fitness

Types of stretching exercises and when to use them; weight training; aerobics endurance training; step aerobics; water aerobics; production of positive changes in heart, blood vessels and lungs.

HPEA 2382 Scuba

An entry-level certification course that requires approximately 32 hours of instruction. In order to earn SCUBA certification, you will participate in classroom sessions and practice essential diving skills in a pool. The final test will include a written exam and an open water dive. Upon completion, you will receive a YMCA recreational level certification card that identifies you as a trained SCUBA diver, allowing you to purchase and rent SCUBA equipment, participate in advanced training and explore the other 70% of the world. Prerequisites: Students must be able to swim and tread water per YMCA guidelines.

HPEA 2451 Western Swing Dance

Fundamental skills in line dances, couple dances, two step, shuffle, waltz and swing.

HPEA 2461 Square Dancing

Health and Physical Education Theory

HPET 1113 Nutrition

Course designed to introduce students to the basics of good nutrition. Emphasis will be placed on the five food groups, the six nutrients and food related disorders. Students will learn how to eat a healthy diet based on their personal needs.

HPET 1132 Sports Officiating

Game administration and fundamental principles, rules, mechanics and techniques of officiating fall semester sports: football, volleyball and basketball. Laboratory work in the intramural program will be required.

HPET 1142 Sport Officiating II

Game administration and fundamental principles, rules, mechanics and techniques of officiating spring semester sports: basketball, baseball and softball. Laboratory work in the intramural program will be required.

HPET 1223 Health Education and Wellness

A course directed toward the acquisition of knowledge and appreciation concerning health for effective living.

HPET 1950 Physical Education Field Experience

HPE&R majors will be required one semester of work assignments within the department and under the supervision of a faculty member. They will help in setting up and running athletic contests, assisting in swimming pool and fitness center operations and work in various classes.

HPET 1952 Introduction to HPE&R

A study of the field of physical education/health concerning its foundational principles, aims, objectives, contributions, future, directions, problems, vocational opportunities and career possibilities. Offered fall semester only.

HPET 2052 Introduction to Coaching

A course designed to give students an early exposure to the coaching field; a study of the different theories, philosophies and problems encountered in coaching. Offered spring semester only.

HPET 2212 First Aid

This course provides knowledge and practical experience in the emergency care of injuries and sudden illness, including cardiopulmonary resuscitation. CPR certification is available to the student through the course.

HPET 2382 Athletic Training Practicum I

Students will observe injury evaluation, the use of therapeutic modalities, prophylactic taping and rehabilitation techniques used by Athletic Trainers to enhance performance. Offered fall semester only.

HPET 2450 Supervised Study in HPE&R

Independent Study, only for HPE&R majors.

HPET 2482 Athletic Training Practicum II

Students will apply therapeutic modalities, prophylactic taping, and rehabilitation techniques to athletes. Furthermore, they will continue observing the evaluation of athletic injuries. Offered spring semester only.

HPET 2633 Care & Prevention of Athletic Injuries

A general introduction to different forms of therapy in treatment of athletic injuries—care, treatment and prevention.

Health and Physical Education- Varsity Sports

HPEV 2211 Women's Varsity Basketball

Credit for a full semester participation in varsity basketball.

HPEV 2231 Women's Varsity Volleyball

Credit for a full semester participation in varsity volleyball.

HPEV 2241 Men's Varsity Basketball

Credit for a full semester participation in varsity basketball.

HPEV 2251 Men's Varsity Baseball

Credit for a full semester participation in varsity baseball.

HPEV 2261 Women's Varsity Softball

Credit for a full semester participation in varsity softball.

HPEV 2271 Women's Varsity Soccer

Credit for a full semester participation in varsity soccer.

HPEV 2291 Men's Varsity Soccer

Credit for a full semester participation in varsity soccer.

Humanities

HUMN 1133 World Religions

This course covers a study of the major religions of the world such as Hinduism, Buddhism, Confucianism, Taoism, Judaism, Christianity and Islam with a view to understand the general beliefs and history of each religion. Prerequisite: ENGL 1113 English Composition I or equivalent. (Meets requirement for humanities elective and designation for International dimension.)

HUMN 2103: Introduction to American Studies (currently offered at OSU as AMST 2103)

Interdisciplinary study of American civilization through case studies of American cultural groups and perceptions in order to understand the multiple roles of culture in American life. It will also investigate concepts of American cultural diffusion including: Americanization, McDonaldization, sports, entertainment, and politics. (Meets requirement for OSU Diversity dimension)

HUMN 2113 Humanities-Ancient Arts and Culture

This course involves the study of literature, the graphic arts and music in relation to the historical and philosophical settings of ancient and medieval periods from a global perspective. Prerequisite: ENGL 1113 English Composition I or equivalent. (Meets requirement for humanities elective and designation for International dimension.)

HUMN 2223 Humanities-Modern Arts and Culture

This course involves the study of literature, the graphic arts and music in relation to the historical and philosophical settings. Covers the period from the end of the European Middle Ages to the present from a global perspective. Prerequisite: ENGL 1113 English Composition I or equivalent. (Meets requirement for humanities elective and designation for International dimension.)

HUMN 2450 Supervised Study in Humanities

This course involves a one-on-one discussion and study with a humanities instructor to meet a student's specific humanities need.

HUMN 2550 Humanities Studies Abroad (Meets requirement for humanities elective and designation for International dimension)

Journalism

JOUR 1013 Introduction to Mass Communications

This is a survey course emphasizing communication theory, mass media history and ethics, and the operation and structure of the American communication system.

JOUR 1111 Introduction to Digital Photography

This course is designed to introduce the student to digital imaging and Adobe® Photoshop®. Digital imaging and output will be discussed. Exercises to practice the basic image editing features of the software will be given.

JOUR 1113 Writing for Mass Media

The course will cover the basic skills and terminology associated with the broadcast journalism profession. The student will learn to gather, record, edit and broadcast information for a produced newscast. An emphasis will be placed on the difference between print and broadcast journalistic style.

JOUR 1123 News Reporting & Writing

Fundamentals of news reporting skills with emphasis on developing a broad range of skills in writing in specialized areas including interviewing techniques, beat reporting, court reporting, alternatives to the inverted pyramid, sports reporting, investigative writing, editorial writing, newspaper ethics and media law. Prerequisite: Writing for Mass Media (JOUR 1113).

JOUR 1131 Beginning Black & White Darkroom

Students will develop Black and White film and print their own black and white photographs in this lab. Students will study basic developing techniques for film and polycontrast printing technique for making black and white enlargements. Students will learn printing techniques of dodging and burning as well as more advanced controls and techniques. Recommended for those taking JOUR 1133; required component of JOUR 1133 for Photography and Digital Imaging majors.

JOUR 1133 Beginning Photography

A study of fundamentals of photography for the beginning student or hobbyist interested in gaining a familiarization of photography. The class will study the controls found on adjustable cameras; basic photographic techniques; composition; available light and flash photography; black & white and color films. Students wishing to learn how to process b&w film and prints should also enroll in JOUR 1131 Beginning Black & White Lab. Access to and use of an adjustable 35mm film or 35mm style digital camera is essential to this course. There are a limited number of cameras for check out. Assignments for this course can be produced in the JOUR 1131 Black and White lab course. Photography and Digital Imaging majors must enroll in JOUR 1131 concurrently.

JOUR 1143 Graphics and Video Production

Graphics and Video Production is a required course for the Multimedia Digital Communications Program. The purpose of this course is to prepare students to produce state of the art video presentations. Students will learn to create and edit analog and digital presentations using PowerPoint, the Internet and other visual mediums generated via computer. These productions include text, graphics, video and audio clips.

JOUR 1223 Design Technology

This is a basic study and examination of the integration of text, graphics, and other media for digital imaging, page layout, and web design. Computer laboratory assignments will direct the student in image capture, image modification and manipulation, page layout, web application, and output to other computer applications, printers, and storage devices. Prerequisite: CS 1113 Computer Concepts, concurrent enrollment, or permission of the instructor.

JOUR 2013 Principles of Advertising

Survey of advertising industry, media functions, careers in advertising, social and economic aspects, budgets, appropriations, rate structures, terminology, basic elements and purposes of advertising.

JOUR 2023 Photojournalism

The application of photography for journalistic coverage of feature, news, and public relations needs. Students will examine various styles, digital imaging, and ethics.

JOUR 2043 Light and Lighting

This is a foundation course designed to prepare students in skills that deal with light and lighting and studio work. Students will study light theory, lighting equipment, exposure, film, composition and picture-taking techniques. Students will practice available lighting with reflectors, lighting with small single and multiple strobe units and studio lighting equipment. Prerequisite: JOUR 1133 Beginning Photography and concurrent enrollment in JOUR 2133 Intermediate Photography is recommended.

JOUR 2101 Independent Photographic Darkroom

Students who wish to have more practice in the darkroom may sign up for an additional lab period. This will be independent lab with objectives and projects coordinated with the instructor.

JOUR 2113 Digital Imaging

This course offers a basic study of digital imaging and image editing for presentation and photographic applications. The course examines the primary areas and uses of photographic digital imaging. Computer laboratory assignments will direct the student in image capture, image modification and manipulation, and output to computer applications, printers, and storage devices. Prerequisite: CS 1113 Computer Concepts or concurrent enrollment; JOUR 1133 Beginning Photography is recommended but not required.

JOUR 2133 Intermediate Photography

This is a continuation of JOUR 1133 Basic Photography. Students will advance their skills in black and white and begin developing photographs in color. The class will place an emphasis on composition. Students will identify specific

genres of photography in which they are interested, evaluate occupational and advanced skills and begin building a portfolio. Prerequisite: Beginning Photography (JOUR 1133). A lab is required with this course.

JOUR 2143 Advanced Photography

Students will study advanced photographic theory, composition and presentation. Various topics, such as, the zone system, color theory and visual psychology will be discussed. Students will continue to work on their portfolio.

Prerequisite: Intermediate Photography (JOUR 2133) A lab is required with this course.

JOUR 2213 Photographic Studio Practice

This is a continuation of JOUR 2043 Light and Lighting. This course will further prepare students to work in a studio environment. Topics will include advanced studio lighting for portraits, outdoor and environmental portraiture, wedding photography and commercial lighting applications. Pre-requisite: JOUR 2043 Light and Lighting.

JOUR 2223 Broadcast Journalism

Basic skills and terminology of broadcast journalism. Gathering, recording, editing and casting of news material for on-air use are explored. Special emphasis on differences between print and broadcast journalistic style.

JOUR 2240 Multimedia Practicum

Fundamentals of layout and design as used in a magazine and newspaper approaches are applied to the student newspaper and yearbook in the desktop publishing environment with practical skills in writing, advertising, photography and editing.

JOUR 2283 Industry Issues

This is a seminar course dealing with current topics affecting the field of photography and digital imaging. Students will be expected to identify the specific area of photography in which each wants to work. Students will make short and long range goals, prepare a resume, make industry contacts, perform job searches, study interview skills and study the basics of running a photography business. Students will finalize their student portfolio. They will attend relevant industry conferences and visit current working photographers and industry related businesses. Prerequisite: Students should be in the final semester of the Photography and Digital Imaging major.

JOUR 2313 Advanced Digital Imaging

This course is an advanced study of digital imaging, image editing and manipulation. Emphasis will be placed on graphics and digital images for photographic applications. Students will be encouraged to take the Adobe® Certified Expert examination for Photoshop® but it will not be required. Prerequisite: JOUR 2113 Digital Imaging .

JOUR 2401 Action Photography Seminar

The principles of sports and action photography are discussed and practiced. The use of the shutter for freezing action, blurring action and panning are the basic controls that are studied. The use of various lenses and equipment is considered. Offered fall semester, odd years.

JOUR 2411 Flash Photography

The use of electronic flash or strobe lighting is the objective of this course. The principles of flash exposure, the inverse square law of light, guide numbers and power ratings are discussed. Experiments with multiple flash and painting with flash are demonstrated. Offered spring semester, even years.

JOUR 2421 Available Light Photography

This is a study of the basics of exposure especially as it relates to unusual lighting situations especially night photography. The use of various films, reciprocity failure and development techniques will be discussed. Students will practice taking photographs in unusual lighting situations. Offered spring semester, even years.

JOUR 2431 Photographic Creativity Seminar

This seminar will study the theory of creativity as it relates to photography. Topics will include sources of creativity, how to become more creative and right brain/left brain approaches to art and photography. The class will review the basics of composition. Offered spring semester, odd years.

JOUR 2441 Photography Trip Seminar

Students will help plan and execute a trip. The students will study landscape and travel photography as well as the culture of the area visited. Students will plan photographic opportunities and preparations needed and prepare a presentation following the trip. Offered fall semesters.

JOUR 2450 Supervised Study in Journalism

This class is an independent study agreement between the instructor and student. The requirements will be developed and supervised by the instructor.

JOUR 2451 Wedding Photography

This course will study the basic approaches to wedding photography from the traditional approach to a photojournalism style. The unique photographic problems of wedding photography and the equipment needed will be discussed.

Students will practice posing and photographing the bride and groom, groups and candid photos. Prerequisite: JOUR 1133 Beginning Photography is recommended. Offered fall semester, even years.

JOUR 2460 Internship in Journalism

This is an internship agreement between the student, instructor and media supervisor to allow the individual student to gain practical experience in the daily operations of the participating media facility.

JOUR 2461 Environmental Portraiture

The focus of this seminar is on portraiture outdoors and on location as opposed to a studio

environment. Students will study the basics of portrait lighting, posing and exposure technique as each relates to environmental portraits. Equipment needs of advanced amateur and professional level work will be discussed. *Traditionally offered only in the fall semesters, even years.*

JOUR 2463 Internship in Photography

This is an internship agreement between the student, instructor and owner/manager of a photographic studio. The student will be expected to participate in 150 hours of work supervised experience with an established photographer/studio. Prerequisite: Permission of instructor and second year in major.

JOUR 2493 Landscape and Fine Art Photography

The principles of landscape photography and composition will be discussed. The class will study exposure, film selection, format and lenses and equipment. This will be offered in conjunction with a trip to locations that vary each summer. The trip is not required but is an integral part of the experience. The instructor will arrange the trip which will incur an additional cost. Prerequisite: Beginning Photography (JOUR 1133) is recommended but not required. *Offered summer semester.*

Foreign Languages

LANG 1114 or 1125 Elementary Spanish I

Pronunciation, elements of grammar, easy readings, conversation and composition. Courses (LANG 1114 and 1224) are not for students having had two years of Spanish in high school.

LANG 1115 Elementary French I

Pronunciation, conversation, grammar, reading. Offered on sufficient demand.

LANG 1213 American Sign Language

This course is an introduction to American Sign Language (ASL) and the deaf culture. It addresses signs and elements of grammar associated with ASL building the receptive and expressive skills necessary to communicate basic vocabulary and simple phrases used in everyday life. Prerequisites: There are no prerequisites.

LANG 1225 Elementary French II

A continuation of Elementary French I with increased classroom dialogue in French.

LANG 1224 or 1235 Elementary Spanish II

Listening and responding skills are emphasized along with grammar, geography and culture. Prerequisite: 4 or 5 hours Spanish. Offered on sufficient demand.

LANG 2113 Intermediate French I

Offered on sufficient demand. Prerequisite: Elementary French II (LANG 1225) or equivalent.

LANG 2123 Intermediate Spanish I

Offered on sufficient demand. Prerequisite: Elementary Spanish II (LANG 1224) or equivalent.

LANG 2152 Spanish Pronunciation

Rules and proper pronunciation are studied and practiced. Prerequisite: 8 hours Spanish or equivalent. Offered on sufficient demand.

LANG 2183 Spanish Composition and Conversation/Reading

Written and oral communication skills are developed. Prerequisite: 8 hours Spanish or equivalent. Offered on sufficient demand.

LANG 2193 Spanish Composition/Grammar

Grammatical structure is analyzed with special emphasis placed on the complexities of the verb system. Prerequisite: 8 hours Spanish or equivalent. Offered on sufficient demand.

LANG 2223 Intermediate French II

Offered on sufficient demand. Prerequisite: Intermediate French I (LANG 2113) or equivalent.

LANG 2233 Intermediate Spanish II

Offered on sufficient demand. Prerequisite: Intermediate Spanish I (LANG 2123) or equivalent.

Leadership

LEAD 1331 Lessons in Leadership

An introduction to leadership to promote the growth and development of student leaders through implementation of campus pride projects and leadership team service projects.

LEAD 2313 Inclusion Leadership

A year-long leadership and mentoring program for college sophomores and high school seniors focusing on inclusion and diversity in a global society utilizing technology.

PRDV 2321 Professional Development

Professional Development is designed to assist students in the transition from college to their career. To be effective in a career and in life depends on preparation, attitude, hard work, personal qualities, and the right strategies. This course focuses on practical tips and strategies that will help students succeed in the work environment. Emphasis will be on time management / organizational skills; resume development posting; interview, communication, and presentation skills; dressing for success and first impression management; and etiquette.

Literature

LIT 2113 Survey of World Literature Before 1650

Reading, writing, and discussion of selected major writers from ancient and classical times to the beginnings of the European Enlightenment. Prerequisites: English Composition I (ENGL 1113) or equivalent. (Meets requirement for humanities elective and designation for International dimension)

LIT 2223 Survey of World Literature Since 1650

Reading, writing, and discussion of selected major writers from the European Enlightenment to the present.

Prerequisites: English Composition I (ENGL 1113) or equivalent. (Meets requirement for humanities elective and designation for International dimension.)

LIT 2413 Introduction to Literature

A critical introduction to the major genres of English, American, and world literature—fiction, poetry, and drama. (Meets requirement for humanities elective.)

LIT 2543 Survey of British Literature to 1800

Reading, writing, and discussion of selected works of major British and Irish authors from the beginning to the Romantic Period. Prerequisite: English Composition I (ENGL 1113). (Meets requirement for humanities elective.) Offered spring semester only.

LIT 2653 Survey of British Literature from 1800 to the present

Reading, writing, and discussion of selected works of major British and Irish authors from the Romantic Period to the present. Prerequisite: English Composition I (ENGL 1113). (Meets requirement for humanities elective.) Offered fall semester only.

LIT 2773 Survey of American Literature to 1877

Reading, writing, and discussion of selected major writers from Bradford to Whitman. Prerequisite: English Composition I (ENGL 1113). (Meets requirement for humanities elective.) Offered fall semester only.

LIT 2883 Survey of American Literature from 1877 to the present

Reading, writing and discussion of selected major writers from Whitman to the contemporaries. Prerequisite: English Composition I (ENGL 1113). (Meets requirement for humanities elective.) Offered spring semester only.

Mathematics

MATH 0003 Pre-Algebra

Designed as a three-hour course to place an emphasis on arithmetic skills needed for success in algebra (addition, subtraction, multiplication, division). Rules for operations on signed numbers, concepts of integers, fractions, decimals and percents will be studied. Simple equation solving and formula manipulations are also included. This course meets the deficiency requirements for students who do not meet entrance requirements by either high school course work or test scores.

MATH 0023 Concepts of Algebra

Previous study in algebra is not assumed. The topics studied will prepare a foundation to study intermediate algebra before taking college algebra. The topics covered are linear equations, laws of exponents, polynomials, factoring, factoring applications, graphing, story problems, and substituting data into formulas. A comprehensive review of arithmetic procedures is incorporated throughout the course. This course meets the deficiency requirements for students who do not meet entrance requirements by either high school course work or equivalent placement scores. Prerequisite: "C" or better in MATH 0003 Pre-Algebra or equivalent placement scores.

MATH 0123 Intermediate Algebra

Designed to provide in-depth applications of algebra necessary to complete college-level mathematics. Intermediate Algebra includes topics such as factoring, rational expressions, simplifying radical expressions, quadratic equations and graphing linear equations in two variables. This course meets the deficiency requirements for students who do not meet entrance requirements by either high school course work or equivalent placement scores. Prerequisite: "C" or better in MATH 0023 Concepts of Algebra or equivalent placement scores.

MATH 1104 Technical Math-Algebra/Trigonometry

A course designed for those students entering the electronics field. Students will study algebraic fractions, fractional equations, graphs, simultaneous equations, determinants, exponents and radicals, quadratic equations, network amplification, angles, phasor algebra and logarithms. In addition, this course involves the study of right angles, trigonometric functions, trigonometric tables, trigonometric identities and equations and applied trigonometry to electronic problem solving.

MATH 1133 Technical Math

A course designed for students entering technical fields. Topics to be included are fundamental concepts of basic mathematics, the metric system and conversions, algebra equations and formulas, graphing, exponents and logarithms, geometry and trigonometry, and statistics. Prerequisite: "C" or better in MATH0023 Concepts of Algebra or appropriate placement score. Offered fall semester only.

MATH 1233 Probability and Statistics

This course is an introduction to statics, probability and data interpretation for non-mathematics majors. Topics include the following: Organizing data, measures of central tendency, variation, and position, the normal distribution,

counting techniques, basic probability, data interpretation, and real work application. This course was specifically designed for Pre-Education majors and will satisfy one of the math requirements for pre-education majors (elementary education, special education, early childhood education). This is not a replacement for Elementary Statistics. Prerequisite: "C" or better in MATH 0023 Concepts of Algebra or equivalent placement scores.

MATH 1483 Math Functions

This course is designed to analyze functions using equations, graphs, and tables from the viewpoint of rates of change. It explores linear, exponential, logarithmic, and other functions with applications to the natural sciences, agriculture, business, and the social sciences. Not appropriate for students in math, science, or engineering majors. Prerequisite: MATH 0123 Intermediate Algebra or equivalent placement scores.

MATH 1493 Mathematical Applications

A college level math course that fulfills the general education requirement. This course is intended for students who are not destined for an engineering-oriented, science-oriented or business-oriented calculus course. The topics covered will include but not be limited to ratio and proportion, APR, simple statistical measures, loans, annuities, percents, trade discounts, compound and simple interest, and credit card free methods. Application to natural sciences, business, economics and social sciences will be explored. This is a terminal mathematics course and will not be used as a pre-requisite to any other mathematics course, but will fulfill the general education math requirement. Prerequisite: "C" or better in MATH 0023 Concepts of Algebra or equivalent placement scores.

MATH 1513 College Algebra

This course includes advanced topics in solving and graphing equations and inequalities, quadratics, polynomial and rational functions, theory of equations, systems of equations, matrices and determinants, logarithmic and exponential functions, arithmetic and geometric sequences and summations. Applications of these topics will include, but are not limited to, exponential growth and decay, compound and continuous interest, variation, work and rate problems. Prerequisite: "C" or better in MATH 0123 Intermediate Algebra or equivalent placement scores.

MATH 1613 Plane Trigonometry

This course includes topics in trigonometric identities, functions, graphs of trig functions, solutions of trigonometric equations, applications with right triangles, laws of sines and cosines, vectors and application of vectors, polar coordinates, graphs, application to sciences and allied subjects. The content emphasis is pre-calculus. Prerequisite: "C" or better in MATH 1513 College Algebra.

MATH 1715 College Algebra & Trigonometry

This course includes advanced topics in solving and graphing equations and inequalities, quadratics, polynomial and rational functions, theory of equations, geometric sequences and summations; trigonometric equations, applications with right triangles, laws of sines and cosines, vectors, polar coordinates, and graphics. Applications of these topics will include, but are not limited to, exponential growth and decay, compound and continuous interest, variation, work and rate problems, vectors, various sciences and allied subjects. Prerequisite: "C" or better in MATH 0123 Intermediate Algebra or equivalent placement scores.

MATH 2023 Elementary Statistics

This course includes the following topics: descriptive measures, probability, sampling distributions, estimation and hypotheses testing, regression and correlation. This course is appropriate for business, economics, natural science, health science, social science and education majors. Prerequisite: MATH 1513 College Algebra or MATH 1483 Math Functions. Course will transfer to OSU as STAT 2013 or 2023.

MATH 2103 Elementary Calculus

An introduction to differential and integral calculus, with applications appropriate for students of Business, Economics, Accounting, Natural Sciences and Social Science. Prerequisite: College Algebra (MATH 1513) or MATH 1483 Math Functions.

MATH 2145 Calculus I

The first of a two semester sequence in integrated analytics and calculus. The course includes the following topics: Introductory Analytic Geometry, lines, slopes, circles, functions, limits, indeterminate forms, differentiation of algebraic, trigonometric and other transcendental functions, applications of differentiation, basic integration techniques and applications, advanced integration techniques and improper integrals. Prerequisite: "C" or better in MATH 1513 College Algebra and MATH 1613 Trigonometry or MATH 1715. Offered spring semester only.

MATH 2155 Calculus II

The course includes topics of infinite sequences and series, conic sections, polar coordinates, parametric equations, vectors and analytic geometry in two and three dimensions, vector valued functions, functions and calculus of several variables, and multiple integrals. Prerequisite: "C" or better in MATH 2145 Calculus I or equivalent. Offered fall semester only.

MATH 2233 Elementary Math Structures

This course is a study of the fundamental structures of mathematics for non-mathematics majors. Topics include the following: critical thinking, problem solving, sets and set theory, number theory, real number operations, basic algebra skill and graphing. This course was specifically designed for Pre-Education and FSCD majors and will satisfy the college level math requirement for pre-education majors (elementary education, special education, early childhood

education). FSCD majors can use this course as an approved elective. Prerequisite: "C" or better in MATH 0023 Concepts of Algebra or higher.

MATH 2243 Geometric Structures

This course is a study of the fundamental structures of geometry for non-mathematics majors. Topics include the following: line and angle relationships, triangles, quadrilaterals, circles, area, volume, and introduction to trigonometry. This course was specifically designed for Pre-Education and will satisfy the college-level math requirement for pre-education majors (elementary education, special education, early childhood education). Prerequisite: "C" or better in MATH 0023 Concepts of Algebra or equivalent placement scores

MATH 2373 Technical Math-Applied Calculus

Application is to the field of electronics. This course is a study of functions, average rate of changes, exact rates, limits, derivatives, applied derivatives, differentials, higher derivatives, integrals, applied integrals, logarithmic and exponential functions, Maclaurin's series, Taylor series, Fourier series and Laplace transforms.

MATH 2613 Differential Equations

Basic definitions and techniques of solving differential equations, techniques for solving first and higher order differential equations and their applications, operator methods, Laplace transforms, solution of systems of differential equations. Offered spring semester only. Prerequisite: "C" or better in MATH 2155 Calculus II. Offered spring semester only.

Music

MUSC 1003 Fundamentals of Music

The study of musical notation and terminology along with the major and minor modes and intervals. This course is not designed for the advanced student nor the student with the ability to enter the Music Theory course sequence.

MUSC 1110 Recital Attendance

Noncredit activity, required for Music majors.

MUSC 1113 Music Appreciation

A survey of music with emphasis on analysis and perceptive listening from the Baroque through the twentieth century of International musical styles. (Meets requirement for humanities elective and designation for International dimension.)

MUSC 1131 Ear Training & Sight Singing I

The study of basic aural skills in sight singing through the use of Solfege.

MUSC 1133 Music Theory I

The study of the basic rudiments of tonal music, covering major and minor scales, key signatures, intervals, triads and correlated with keyboard skills. Taken concurrently with MUSC 1131 Ear Training & Sight Singing.

MUSC 1141 Ear Training & Sight Singing II

A continuation of MUSC 1131 with the addition of basic melodic dictation and chord identification. Prerequisite: MUSC 1113 Music Appreciation.

MUSC 1143 Music Theory II

The continuation of MUSC 1133 with the addition of diatonic harmony through part writing and analysis. Prerequisite: MUSC 1133.

MUSC 1000 Private Instruction (for Freshmen and Sophomores)

Credit will vary from 1-4 hours. Private brass, organ, piano, voice, strings, woodwinds, and percussion.

Applied Instrument Class

MUSC 1211 Applied Instrument- Low Brass Class

MUSC 1221 Applied Instrument- High Brass Class

MUSC 1311 Applied Instrument- Woodwind Class

MUSC 1411 Applied Instrument- Percussion Class

MUSC 1511 Applied Instrument- Strings Class

MUSC 1521 Applied Instrument- Guitar Class

MUSC 1513 Music Literature

The study of the music literature, style and performance practices of the Baroque through the twentieth century period. Prerequisite: MUSC 1113 Music Appreciation or MUSC 1133 Music Theory I and MUSC 1143 Music Theory II.

(Meets requirement for humanities elective)

Applied Voice- Class

MUSC 1611 Applied Voice Class

Voice class for non-music majors and instrumental music majors seeking voice lessons. Basic voice pedagogy is applied in this class.

MUSC 1623 Music Business I

A series of lectures designed to acquaint students with various aspects of business opportunities as related to the entertainment industry. Such lectures include, but are not limited to, music publishing and recording, resume writing and artist management.

MUSC 1633 Music Business II

A continuation of Music Business I. Prerequisite: MUSC 1623 Music Business I.

Applied Piano- Class**MUSC 1711 Applied Piano Class I**

The study of the basic skills of piano technique. Students take this course in conjunction with MUSC 1133 and MUSC 1131.

MUSC 1721 Applied Piano Class II

A continuation of MUSC 1711 with the addition of major scales and literature study. Prerequisite: MUSC 1711.

MUSC 1731 Applied Piano Class III

A continuation of MUSC 1721 with the addition of minor scales and minor harmonizations. Intermediate level piano literature. Prerequisites: MUSC 1711, 1721.

MUSC 1741 Applied Piano Class IV

A continuation of MUSC 1731 with the addition of further development of the foundations for the proficiency skills required of all music majors. Prerequisites: MUSC 1711, 1721, 1731.

MUSC 1991 Music Theatre Seminar

An in-depth overview of performance practices centering on songs and scenes from the Music Theatre genre, as well as monologues from plays and musicals. For non-majors.

MUSC 2040 Music Theatre Activity

Individual involvement in Music Theatre productions. May be repeated (4 credit hours maximum). Prerequisite: Permission of instructor.

MUSC 2131 Ear Training & Sight Singing III

A continuation of MUSC 1141 with the addition of rhythmic, melodic, and basic choral dictation. Prerequisite: MUSC 1141 Ear Training & Sight Singing II.

MUSC 2133 Music Theory III

The continuation of MUSC 1143 with the addition of non-chord tones, diatonic and secondary seventh chords. Chromatic harmony is touched upon. Prerequisite: MUSC 1143 Music Theory II.

MUSC 2141 Ear Training & Sight Singing IV

A continuation of MUSC 2131 with the addition of advanced rhythmic, melodic, chordal identification and choral dictation. Prerequisite: MUSC 2131 Ear Training & Sight Singing III.

MUSC 2143 Music Theory IV

The continuation of MUSC 2133 with the addition of twentieth-century techniques including polyharmony, atonality, and serialism. Prerequisite: MUSC 2133 Music Theory III.

MUSC 2221 Comprehensive Jazz Musicianship

Advanced instrumentalists in a class setting studying the art of improvisation in regard to chord progressions.

MUSC 2331 Jazz Improvisation

A study of style in regard to contemporary performance.

MUSC 2441 Piano Pedagogy

Emphasis on materials and methods related to a graded program for studio piano instructors.

MUSC 2450 Supervised Study- Music Independent study.**MUSC 2460 Music Business Internship**

For students who have completed Music Business I & II. Supervised experience is arranged in the student's area of interest. Students must have permission from Music Business advisor to enroll. Prerequisite: MUSC 1633 Music Business II.

MUSC 2611 Wind Ensemble-Concert Band

The performance of band literature in an ensemble situation. Repeated credit may not be included in the credits required for graduation.

MUSC 2621 String Ensemble

Traditional ensemble work with string instruments.

MUSC 2631 College Choir

Choral ensemble performance. Repeated credit may not be included in the credits required for graduation.

MUSC 2641 Orchestra

The performance of orchestral literature in an ensemble situation. Repeated credit may not be included in the credits required for graduation.

MUSC 2650 Music Seminar

Topics of study within the applied contemporary field.

MUSC 2651 Music Computer Seminar

A survey of computer-aided music with emphasis on sequencing and music notation.

MUSC 2653 Contemporary Arranging

A study of vocal range and distribution; instrumental transposition and ranges; arranging vocal and instrumental ensembles and combination.

MUSC 2711 Wind Ensemble - Jazz Band

Performance of the literature of jazz. Repeated credit may not be included in the credits required for graduation.

MUSC 2731 Vocal Ensemble- Roustabouts

Performance of the literature of pop music. Enrollment by audition and permission of instructor only.

MUSC 2831 Madrigal/Chamber Singers

Performs Madrigal literature during the fall and Chamber literature during the spring. Open by audition only.

Nursing

NURS 1113 Critical Thinking in Health Care Systems

An introduction to critical thinking concepts in health care systems. This course is designed to introduce topics that include basic principles of critical thinking, the impact of changes in health care to our thinking process, multidisciplinary approaches and expanding roles in health care. Prerequisites: There are no prerequisites.

NURS 1114 Fundamentals of Nursing

Fundamentals of Nursing is designed to orient the beginning student to the practice of nursing. It incorporates principles of the sciences and humanities and bases practice on the nursing process. The course centers on the concepts of safe practice and serves as a conceptual framework for application in a practicum setting. Prerequisite: Formal approval by the Nursing Division is required before being admitted into this course. Offered fall semester only.

NURS 1121 Nursing Treatments

A one hour course offered to freshmen nursing students. Designed to assist the nursing student in understanding pharmacology and diagnostics. Offered in spring semester only. Prerequisites: Fundamentals of Nursing (NURS 1114)

NURS 1123 Service Learning in Nursing Across the Life Span

Service Learning in Nursing across the Life Span is an online course which introduces students to the concepts of service learning. Students are given the opportunity to integrate the concepts of service learning into professional learning activities. Health and the health continuum are discussed in terms of the broader perspectives of human persons, their physiological, psychological, developmental and socio-cultural modes. This course connects theory to service learning and explores concepts related to social justice, ethics, and advocacy for individuals and populations. Prerequisites: Fundamentals of Nursing and Fundamentals of Nursing Practicum.

NURS 1124 Nursing Fundamentals Practicum

In Fundamental's Practicum the learner will have the opportunity to utilize the nursing process as a vehicle for meeting basic health needs of clients in actual care settings. The course is designed to allow the learner to apply theoretical knowledge to direct client care. Offered Fall Semester only. Designed to be taken concurrently with NURS 1114 Fundamentals of Nursing. Prerequisite: Formal approval by the Nursing Division is required before being admitted into this course.

NURS 1234 Nursing of Adults I

Nursing of Adults I is designed to build upon learning acquired in Fundamentals. The focus is on knowledgeable use of the nursing process as it relates to the holistic (basic and higher needs) care of the adult client who is experiencing a health interruption such as an illness of a medical/surgical nature and/or psychosocial nature.

Prerequisites: Fundamentals of Nursing (NURS 1114) and Fundamentals of Nursing Practicum (NURS 1124) or successful completion of advanced standing testing for Fundamentals of Nursing. Offered spring semester only.

NURS 1244 Nursing of Adults I Practicum

Nursing of Adults I Practicum incorporates planned hospital and clinical experiences, which increase the learner's understanding of the disease process and effective nursing care. The learner incorporates understanding of the relationship of the nursing process to holistic (basic and higher) client care including therapeutic communication techniques. Designed to be taken concurrently with Nursing of Adults I (NURS 1234). Offered spring semester.

NURS 1253 Introduction to Nursing

Introduction to Nursing is a course designed for Licensed Practical Nurses seeking advanced standing in the associate degree nursing program. Areas of focus are holistic assessment skills, role change, nursing process and validation of psychomotor nursing skills. Prerequisites: LPNs who have successfully challenged Fundamentals courses and/or LPNs who have been accepted for direct articulation. Offered summer semester only.

NURS 1353 Introduction to Psychiatric Nursing

Introduction of Psychiatric Nursing is designed to enhance the knowledge base of LPNs wishing to enter the nursing program in the fall semester. The focus is on the use of the nursing process as it relates to the holistic care of the client experiencing a health interruption of a psychosocial nature. The Practicum incorporates planned clinical experiences, which increase the learner's understanding of the disease processes and effective nursing care. The learner incorporates understanding of the relationship of the nursing process to holistic client care including therapeutic communication techniques. Prerequisites: LPNs who have successfully challenged Fundamentals courses and/or LPNs who have been accepted for direct articulation. Offered summer semester only.

NURS 2071 Seminar in Nursing I

A one-hour course offered to sophomore nursing students. Designed to assist the nursing students to identify and understand safe pharmacological practice principles in the management of nursing care for commonly-prescribed

medications. Prerequisites: Fundamentals of Nursing (NURS 1114) and Nursing of Adults I (NURS 1234) or LPN Bridging Courses. Offered fall semester only.

NURS 2072 Seminar in Nursing II

A two-hour credit course offered to sophomore nursing students. A continuation of Seminar in Nursing I (NURS 2071) designed to assist the nursing student in assuming the new role of graduate nurse. Discussion and analysis of the development of nursing as a profession including the history and controversies, as well as political concerns influencing the relationship of nursing and society; also includes discussion of nursing organizations, career opportunities, interview skills and management of client care. Prerequisite: Nursing Seminar I (NURS 2071). Offered spring semester only.

NURS 2334 Maternal Child Nursing

Maternal-Child Nursing is designed to introduce the student to the nursing care of maternity clients, children and their families. The maternity phase of life is a normal event which influences the entire family. Another focus of the course is the common health interruptions occurring in the childhood years. Growth and development is a normal progression which influences the child. Concepts of health are focused on the woman from conception through postpartum and on the well child in addition to the ill child. Normal physiologic changes of the mother and the fetus/newborn are stressed. Anticipatory guidance for growth and development are also stressed. Common health problems are also presented. The nursing process, the application of biophysical and psychosociospiritual principles, communication and Maslow's hierarchy of needs are employed within the framework of family-centered nursing. Prerequisites: Nursing of Adults I (NURS 1234). Offered fall semester only.

NURS 2344 Maternal-Child Practicum

The focus of the practicum is to provide the student the opportunity to incorporate theoretical knowledge in actual client care situations in maternity and pediatric settings in the acute-care setting and in community-based settings. The nursing process, the application of biophysical and psychosociospiritual principles, communication and Maslow's hierarchy of needs are employed within the framework of family-centered maternity nursing. The student is expected to individualize and use the concepts and knowledge learned in earlier courses and apply them to the maternity and pediatric clients as well as the families. Designed to be taken concurrently with NURS 2334 Maternal-Child Nursing Practicum. Offered the fall semester only.

NURS 2415 Nursing of Adults II

Nursing of Adults II is designed to build upon learning acquired in all previous nursing courses. Emphasis is placed on care of the client(s) experiencing common complex health interruptions with relatively predictable outcomes. An interdisciplinary approach is used to plan holistic care for the adult and the family in the hospital as well as in the community based settings. Prerequisites: NURS 1114 Fundamentals of Nursing, NURS 1124 Fundamentals of Nursing Practicum, NURS 1234 Nursing of Adults I, NURS 1244 Nursing of Adults I Practicum, NURS 2334 Maternal Child Nursing and NURS 2344 Maternal Child Nursing Practicum. Offered spring Semester only.

NURS 2425 Nursing of Adults II Practicum

The focus of practicum is on knowledge-able use of the nursing process as it relates to the care of individual clients and small groups of clients. Experience is planned in the hospital and community setting, as well as in specialty areas. Experience is provided for the student to work as a team member and team leader. Attention is given to persons in late adulthood by identifying adaptations to aging as well as health interruptions. Designed to be taken concurrently with NURS 2415 Nursing of Adults II. Offered spring semester only.

NURS 2450 Supervised Study in Nursing

This course is an independent study that is coordinated between the nursing chair and student.

Nutrition

NUTRI 2123 Introduction to Human Nutrition

An introduction to the basic principles of nutrition, including the chemical characteristics of nutrients and their functions in the human body. Students will examine the nutritional requirements and nutrient deficiencies that may occur during the different physiological phases of life. Prerequisites: none required, however students are encouraged to complete BISI 1114 General Biology or BISI 1124 General Biology for Majors prior to enrollment in this course.

Orientation

ORNT 1101 Freshman Orientation

A required course designed to promote a student's educational success.

Philosophy

PHIL 1113 Introduction to Philosophy

This is a survey course designed to introduce the student to the problems of philosophy including discussions on the nature of reality, value, ethics, political ideals, religion and theory of knowledge. This course will cover philosophical methods and historical backgrounds. Prerequisite: ENGL 1113 English Composition I or equivalent. (Meets requirement for humanities elective.)

PHIL 2213 Ethics

This course provides students with a discussion of moral problems such as the nature of good, right action, moral virtue, human freedom and moral responsibility within the context of the major ethical philosophies. (Meets requirement for humanities elective.)

PHIL 2223 Business Ethics

A study of the nature of moral judgments, moral values, freedom and responsibility as it applies to the individual in both a personal and business environment. A framework for resolving ethical issues with analytical grounding in the basic theory of ethics will be introduced. (Meets requirement for humanities elective.)

PHIL 2401 Ethics in the Workplace (H*)

Beginning with an overview of four moral philosophies, the course will explore how ethics and morality in the working environment are changing. Topics include the roles and responsibilities of supervisors and employees relating to issues of theft, dishonesty, sexual harassment, etc. in today's work environment.

*Note: Up to 3 1-hour designated humanities seminars can be taken to meet the 2nd requirement for humanities elective, in addition to a Block A course.

PHIL 2450 Supervised Study in Philosophy

This course involves a one-on-one discussion and study with a philosophy instructor to meet a student's specific academic need.

Physical Science

PHSC 1114 General Physical Science

A lecture, lab, demonstration and participation course designed to help students understand the basic concepts of physics and chemistry. The course meets the physical science requirement and is recommended for elementary education majors and non-science majors. (Meets general education Physical Science requirement.)

ESCI 1214 Earth Science

Subject matter content is composed of general concepts taken from the science areas of geology, astronomy and meteorology. A combination lecture, demonstration, discussion and laboratory experience. A general education course which fulfills the physical science requirement. (Meets general education Physical Science requirement.)

ESCI 2450 Supervised Study in Science Independent study course in the earth sciences for specific and advanced fields of study that utilize one or more components of the scientific method in conducting field or laboratory research: literature review, development of methodologies, data collection, data analysis, the writing of a report/scientific paper, and/or giving a presentation. Consent of instructor required. Credit 1 to 3 hours.

Physics

PHYS 1114 General Physics I

Physics for liberal arts students, pre-professional students in biological and health fields (pre-medicine, pre-nursing, pre-therapy, etc.) and technology students; includes topics from mechanics, heat, fluids, and thermodynamics. Laboratories are designed to reinforce theory principles. Prerequisite: MATH 1513 College Algebra. (Meets general education Physical Science requirement.) Offered fall semester only.

PHYS 1214 General Physics II

A continuation of PHYS 1114 General Physics I. Includes topics from waves and sound, electricity, magnetism, light, and optics. Laboratories are designed to reinforce theory principles. Prerequisite: MATH 1513 College Algebra and PHYS 1114 General Physics I. (Meets general education Physical Science requirement.) Offered spring semester only.

PHYS 2014 Engineering Physics I

Calculus-based general physics course for science and engineering students. Includes topics from mechanics, heat, thermodynamics, waves and sound. Laboratories are designed to reinforce theory principles. Prerequisite: MATH 2145 Calculus I or concurrent enrollment. (Meets general education Physical Science requirement.) Offered spring semester only.

PHYS 2104 Concepts in Physics

An introductory course designed to explain the basic concepts of motion and forces, matter, energy conservation, thermodynamics, fluid flow, electrical circuits and magnetism. Recommended for process technology and elementary education majors as a model course to learn and teach science. Laboratories are designed to reinforce theory principles. Prerequisite: Must have completed College Algebra. (Meets general education Physical Science requirement.)

PHYS 2114 Engineering Physics II

A continuation of PHYS 2014 Engineering Physics I. Includes topics from electricity, magnetism, light and optics. Laboratories are designed to reinforce theory principles. Prerequisite: PHYS 2014 Engineering Physics I or equivalent. (Meets general education Physical Science requirement.) Offered fall semester only.

PHYS 2450 Supervised Study in Physics

Independent study.

PHYS 2812 Applied Physics

This course is designed for students majoring in technology programs or those requiring exposure to applications of physics. The course covers the study of mechanics, relativity, heat, thermodynamic and harmonic motion, heat, sound, optics and modern energy sources with practical applications used to reinforce the theory. (Meets general education Physical Science requirement.)

Political Science

POLI 1113 American National Government

American National Government is an introduction to the federal system of government found in the United States. The course of study includes the roles of Congress, the Presidency, Judiciary, Bureaucracy, interest groups and political parties.

POLI 2113 Comparative Politics

This course provides an introductory survey of the various political states of the world, focusing on: history, geography, political culture, political institutions and processes. (Meets requirement for International Dimension.)

POLI 2133 State and Local Government

This course is the study of the nature and makeup of the state, county, municipal and other grass roots level governments; It examines their place in a federal system and how they operate to include the officials that exist in such systems.

POLI 2450 Supervised Study in Political Science

Independent study.

Process Technology

PTEC 1113 Introduction to Process Technology

Introduction to process operations in the petrochemical industry including: operator roles, responsibilities and expectations; plant terminology; safety and environmental responsibilities; applied organic and inorganic chemistry; applied physics; plant equipment, utility systems; product handling; flow diagrams; general process overviews; basics of process control; and plant organizations. This course will expose students to an overview of the Process Technology associate degree program, including the mental and physical requirements of the Process Technician career. Plant tours will be conducted. Prerequisite: MATH 1513 College Algebra or concurrent enrollment. Offered fall semester only.

PTEC 1124 Process Troubleshooting

This course utilizes heat, mass and energy balances and operating data to identify and correct process abnormalities using techniques such as "cause and effect" and "root cause" analysis. Students will acquire and develop troubleshooting techniques associated with petrochemical processes through group exercises in a work team environment. Prerequisite: PTEC 2124 Systems. Offered spring semester only.

PTEC 1313 Safety, Health, and Work Practices

Introduction to occupational safety, health and environmental practices and associated equipment including: safety mindset and attitude; personal safety equipment; general safety policies and procedures; hazards communication; HAZWOPER/emergency response; first aid and CPR; industrial hygiene; exposure monitoring; and environmental compliance. This course will give students an overview of various governmental regulations mandated by OSHA, EPA, SARA, RCRA, DOT, NFPA, etc. Prerequisite: MATH 1513 College Algebra or concurrent enrollment. Offered spring semester only.

PTEC 2014 Process Technology I- Equipment

This course covers the functions and details of equipment used in processes including piping, pumps, compressors, drums, towers, reactors, heaters, and boilers. Students will review the specific uses and critical parameters of each type of equipment studied. Prerequisite: PTEC 1113 Intro to PTEC. Offered spring semester only.

PTEC 2024 Industrial Instrumentation

This course is designed to introduce the student to a simple pneumatic control loop. Specifically, the student will be introduced to pressure, temperature, level and flow transmitters and the various transducers used in the detection of changes in process variables; pneumatic controllers, valve positioners, control valve types, pneumatic relays and the null-balance system are also included as part of the control loop. Prerequisite: PTEC 1113 Intro to PTEC. Offered fall semester only.

PTEC 2124 Process Technology II- Systems

A familiarization with the general types of processes found in the chemical and refining industry including: distillation and fractionation; reaction; absorption; adsorption; extraction; stripping; cracking; reforming; alkylation; delayed coking; hydro-processing; and sulfur recovery. This course also includes an explanation of product blending and water treatment, as well as steam and electrical power generation. Prerequisites: PTEC 2014 Equipment and PTEC 2024 Instrumentation. Offered fall semester only.

PTEC 2214 Process Technology III- Operations

This course will concentrate on the duties, responsibilities and expectations of the Process Operator with emphasis on understanding and adherence to procedures associated with start-up, shutdown, normal and temporary plant operations. Equipment monitoring, preventive maintenance, training and response to abnormal and emergency operating conditions are stressed as they apply to the work crew and operations team. Students will receive a “sense of reality” regarding the career of a Process Technician, including tips on adjusting to shift work, diversity in the workplace and communicating with the work team and customers. Prerequisite: PTEC 2124 Systems. Offered spring semester only.

PTEC 2243 Principles of Quality

The history of Quality will be explored from Deming’s theories to current applications in today’s petrochemical industry. Internal and external customer/supplier relationships of a business which affect the qualitative aspects of quality and the statistical methods, which affect the quantitative aspects of measuring quality, will be stressed throughout this course. Students will be exposed to the benefits of continuous improvement and quality work as they pertain to developing a high performance work team. Prerequisite: PTEC 1113 Intro to PTEC. Offered fall semester only.

PTEC 2301 Industrial Observation

Students who have already completed an internship during a semester or summer may receive credit by completing a report on their experiences, as well as presenting their observations and knowledge gained to a first year PTEC class.

PTEC 2314 Oil & Gas Production I

Oil and Gas Production I will familiarize students with the job of the oil and gas production technician. Specifically, students will be able to discuss the history of the oil and gas market, concepts surrounding exploration and geology, as well as fundamentals of drilling and well completion, and describe and learn the operations of the equipment and systems used by oil and gas technicians today.

PTEC 2443 Pipeline Operations & Controls

This course will concentrate on the duties, responsibilities, and expectations of the Pipeline Technician with emphasis on understanding and adherence to procedures associated with tankage, pipeline flow rate, and pressure monitoring. Training and response to abnormal and emergency operating conditions are stressed. Students will study expectations for the career of a Pipeline Technician, including tips on adjusting to shift work, diversity in the workplace, and communicating with the work team and customers. Prerequisite: PTEC 2124 Systems.

Professional Development

PRDV 1001 Workplace Essentials I

This course will address the following topics: Finding a Job—Resume Writing, Interviewing and Networking; and Job Advancement—Professional Attire, Self-Confidence, Positive Demeanor, Working with Management, Office Politics, and Phone/Email/Correspondence Etiquette.

PRDV 1011 Workplace Essentials II

Advanced version of PRDV 1001 with work-specific readings

PRDV 1021 Workplace Management I

This course will address topics related to stress and time management, including Emotion Regulation, Time Management, “Clocking in,” Work Ethic, Working Well under Pressure, Resilience Training, Persistence, Growth Mindset, Ability to Accept and Learn from Criticism, and Flexibility/Adaptability/Patience/Self-Awareness/Perceptiveness

PRDV 1031 Workplace Management II

Advanced version of PRDV 1021 with work-specific readings

PRDV 1041 Workplace Leadership I

This course will address supervisory skills needed in the workplace, including Meeting Management, Facilitating Skills, Conflict Resolution, Problem Solving, Difficult Personalities and Unexpected Situations, Influence/Persuasion/Negotiation, Listening, and Teamwork.

PRDV 1051 Workplace Leadership II

Advanced version of PRDV 1041 with work-specific readings

Psychology

PSYC 1113 General Psychology

This introduction to psychology examines each of the contemporary theoretical perspectives in psychology. The relationship of behavior, cognition and emotion are explored in such issues as learning, memory, development, motivation, personality, abnormal behavior and therapy design.

PSYC 2113 Human Sexuality

This course seeks to identify the impact of sexuality on all aspects of the person. Using the perspectives of behavioral science we examine the history of sexuality, gender development, sexual anatomy, communication in sexual relationships, the meaning of intimacy, the human sexual response and other cultural issues of sexuality. Prerequisite: ENGL 1113 English Composition I

PSYC 2213 Developmental Psychology

This course is an examination of the physical, emotional, cognitive, linguistic, behavioral and social changes that occur in human development. Fundamental concepts, research, and theories will be explored through a lifespan model. Prerequisites: ENGL 1113 English Composition I and PSYC 1113 General Psychology or instructor's permission.

PSYC 2233 Social Psychology

This is a scientific study of social forces influencing human behavior with an emphasis upon the individual in a social context. The course will examine the social self, group processes, attitudes and attitude formation, conformity, persuasion, aggression and other social forces and variations that impact the individual within society. Prerequisite: ENGL 1113 English Composition I

PSYC 2333 Introduction to Addictive Behaviors

This course is an introduction to the psychological, physiological, and sociological theories of substance abuse, alcohol, and other addictive behaviors. The course will cover the addiction process and its effects upon the individual, family, and society. Treatment strategy perspectives from the behavioral science, medical, and legal models will be introduced. Prerequisite: ENGL 1113 English Composition I

PSYC 2401 Addictive Behaviors and the Life Span

The family is constantly being subjected to a potentially overwhelming series of challenges. One of the identified "problem solvers" to stress and strain in the family is the use of mood-altering chemicals. The interaction of drugs and family stress will be examined in a combination of didactic and experiential teaching with the student writing an expository paper. Prerequisite: ENGL 1113 English Composition I

Reading

READ 0123 Critical Content Reading and Scientific Reasoning

This course in reading consists primarily of reviewing and learning basic reading skills, then practicing and applying those skills to content area reading. This course meets the deficiency requirements for students who do not meet entrance requirements by either high school course work or test scores.

READ 1113 College Reading Skills & Techniques

This course in reading will work to increase reading rate, reading material in different content areas (textbooks, articles, research), and taking effective notes from reading material.

Service Learning

Multi-disciplinary (i.e. ENGL 2450, HIST 2450, MATH 2450, etc.) course allowing students to earn one-hour additional credit for a course in which they complete a service learning project designed and approved by instructor to illustrate community engagement supporting subject area.

Sociology

SOCI 1113 Principles of Sociology

The dynamics of human society are explored in this survey course of sociology. Beginning with the classical theorists of sociology we construct a contemporary perspective of sociology that demonstrates the theories, research and work of sociologists. Issues such as culture, social interaction, socialization, stratification, multiculturalism, institutions, collective behavior and social change are viewed through the unique perspectives of sociology.

SOCI 2013 Marriage and Family

The sociological relationship between marriage and family and other institutional structures and systems. The emphasis will be on contemporary American marriage and family, with cross-cultural comparisons. Male and female roles and relationships in mate selection, sexuality, marriage, divorce, and other intimate situations will be studied. Prerequisite: ENGL 1113 English Composition I

SOCI 2223 Social Problems

This course is the study of contemporary social problems using the sociological perspective. Using the major theories of sociology students will discuss cross-cultural descriptions, causes and varied solutions for problems such as poverty, gender, race, ethnicity, crime, violence, addictive behavior as well as institutional breakdown in American society. Prerequisite: ENGL 1113 English Composition I

SOCI 2323 Diversity and Inclusion in 21st Century America

This course presents historical context and examines how the United States has arrived at current categories of race, sex and gender, sexual orientation, social class and disability. Prerequisite: ENGL 1113 English Composition I

SOCI 2401 Family in the Millennium

If it takes a village to raise a child, then what role is left to the family? This seminar examines family systems, family communication patterns and family values as the family's role in socialization is discussed. Prerequisite: ENGL 1113 English Composition I

SOCI 2411 Conventional Wisdom

Conventional Wisdom is an innovative way of looking at the world from the sociological perspective. The course provides a vehicle for instructor and class to initiate dialogue on common ground, that of being consumers of popular culture. Sociological ideas and perspectives are used to explain, qualify and sometimes debunk conventional wisdom such as "Winning Is Everything." Prerequisite: ENGL 1113 English Composition I

SOCI 2450 Study Sociology

Independent study. Prerequisite: ENGL 1113 English Composition I

Speech and Broadcasting

SPCH 1653 Radio Broadcasting

The class covers the basic skills needed to operate and perform announcer responsibilities. An emphasis will be placed on digital and analog equipment operations and production techniques.

SPCH 1713 Introduction to Oral Communication

The class is an overview of the principles and techniques used to prepare, evaluate and present a speech in a formal environment. The class also covers the evaluation process in different communication situations.

SPCH 2010 Speech Activity Participation- Radio

The student will be involved in the daily programming of the campus radio station by participating as a student radio announcer. Prerequisite: permission of instructor (4 credit hours maximum).

SPCH 2123 Television Production

The student will be expected to learn how to operate the television equipment used to produce a daily program. An emphasis will be put on the operation of the television system and the terminology and analog technology used in the industry.

SPCH2213 Interpersonal Communication

This course will entail the essential elements needed for students to have effective communication skills with other individuals. The student will understand the global and cultural significance of individual and small group communication. The course will cover listening, non-verbal communication, interviewing skills, conflict resolution, and leadership communication styles.

Theatre

THTR 1213 Beginning Acting

An introduction to basic performance skills designed to develop the student actor's imagination and perception through experience in improvisation, movement, voice and the dramatic monologue.

THTR 1223 Introduction to Theatre

An exploration of theatre as an art form, including history, philosophy and practices of theatre arts from Greece to present day. Included will be lectures and discussions of acting, directing, technical, audience and social influences on theatre. Designed to provide a basic understanding of theatre as an art form and to develop audience appreciation for theatre. (Meets requirement for humanities elective.)

THTR 1243 Stagecraft I

An introduction to technical aspects of the theatre arts including the design and construction of settings and properties, costumes and lighting.

THTR 1262 Stage Makeup

An introduction to the art, technique and materials of makeup to create the impressions of character for the stage and theatrical productions.

THTR 1990 Music Theatre Seminar

Weekly Master Class environment designed to develop performance and auditioning skills. For Music Theatre majors.

THTR 2020 Theatre Activity Participation

Theatre credit for involvement in theatrical productions. Includes technicals, acting, and front of house for productions. May be repeated (four credit hours maximum). Prerequisite: Permission of instructor.

THTR 2213 Intermediate Acting

A continuation of Beginning Acting. Students will add the element of scene study and focus will move to more advanced techniques of improvisation, movement and voice. Prerequisite: THTR 1213 Beginning Acting.

THTR 2243 Stagecraft II

A continuation of THTR 1243 Stagecraft I. Prerequisite: THTR 1243 Stagecraft I.

THTR 2441 Theatre Dance I

Practice and study of common dance movements used on stage when performing musical theatre. Study includes fundamentals of ballet and tap. Offered fall semester.

THTR 2491 Theatre Dance II

A continuation of elements learned in Theatre Dance I. Prerequisite: THTR 2441 Theatre Dance I.

THTR 2713 History of the Theatre

Development of dramatic form, theatre architecture and production procedures from 500 B.C. to the present. Emphasis on the historical and cultural influences of the Western tradition. (Meets requirement for humanities elective.)

THTR 2963 Stage Lighting I

Stage lighting design, design of lighting instruments. Practical experience in lighting

THTR 2973 Stage Lighting II

A continuation of Stage Lighting I