

# 2019-2020 NOC COURSE DESCRIPTIONS

## ACCOUNTING

### 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

The basic principles of record keeping for small businesses designed primarily for secretarial or occupational students.

Prerequisite: ACCT 1113 Basic Business Records I.

### ACCT 1133 PAYROLL ACCOUNTING

A study of payroll procedures, taxing entities, and reporting requirements of local, state, and federal taxing authorities in a manual and computerized environment. *Traditionally offered every odd year fall semester only.*

### 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 every even year fall semester only.*

### 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 Algebra for STEM 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 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 1483 Math Functions. *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 1223 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. *Offered fall semester only.*

**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 1483 Math Functions. *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 spring 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.

**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)

### **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. Prerequisite: ART 1313 Drawing I.

#### **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. Prerequisite: ART 1193 Ceramics I.

**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. Prerequisite: ART 2113 Figure Drawing I.

**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. Prerequisite: ART 2333 Sculpture I.

**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.

\*Note: Up to 3 1-hour designated humanities seminars can be taken to meet the 2<sup>nd</sup> 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. Prerequisite: ART 2853 Painting I.

**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. Prerequisite: ART 2933 Watercolor Painting I.

#### **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 Archaea, 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 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 1314 Chemistry I. (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 2143 MARKETING**

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 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. *Traditionally offered in the fall semester only.*

## **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.

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 a college-level math (not zero-level) 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 Algebra for STEM or MATH 1483 Math Functions for non-Physics students only. (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.)

### **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 Spring 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 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 2203 PYTHON PROGRAMMING**

An overview of programming using the Python language that includes hardware, the operating environment and language interpreter, internal computer data representation, the Python logical and arithmetic operators and operator precedence, flow of control, user and file input/output, user-defined functions, arrays, classes and objects. Students must demonstrate problem-solving skills and an understanding of the syntax of the Python programming language that includes hardware, the operating environment and language interpreter, internal computer data representation, the Python logical and arithmetic operators and operator precedence, flow of control, user and file input/output, user-defined functions, arrays, classes and objects. Students must also write well-documented efficient programs by using good design techniques including the use of pseudo-code and design templates. *Traditionally offered in the fall semester only.*

### **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. Prerequisite: CS 1013 Visual Basic Programming or CS 2303 Java Programming. *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.

### **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.

### **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 2450 SUPERVISED STUDY IN CRIMINAL JUSTICE**

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

### **CRMJ 2460 INTERNSHIP IN CRIMINAL JUSTICE**

This course offers an introduction to the opportunities and challenges of the criminal justice system. Career exploration experiences allow the student to investigate specific job requirements and work environments. Reports must be completed during the internships.

## **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**

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**

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 1213 GRAPHIC DESIGN**

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 1243 INTRO TO GAME DEVELOPMENT**

This course introduces the concepts and skills to creating assets and environmental art for game development. Students will learn to build art assets such as modular game assets, architectural components and reusable landscape models, then import those real-time assets and environments in a commercial game engine.

### **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**

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. Prerequisite: DMAD 1133 Introduction to 3D Animation.

### **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**

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. Prerequisite: DMAD 2323 3D Animation II.

### **DMAD 2343 TEXTURING**

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. Students will complete the course by implementing their final rendered project as a DVD demonstration reel. DMAD majors only.

### **DMAD 2373 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. Prerequisite: DMAD 2313 Motion Graphics I.

### **DMAD 2382 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.

### **DMAD 2393**

This course develops practical applications in the creation of digitally mediated communication for entertainment using concepts and skills for creating real world production experience in designing content creation. A range of the newest cutting edge media will be used for this course. This allows the student to exercise forward-thinking, conceptualization, innovation, critical thinking, and visualization for specific projects.

## **EARTH SCIENCE**

### **ESCI 1214 EARTH SCIENCE**

Subject matter content is composed of general concepts taken from the science areas of geology, astronomy, meteorology, and oceanography. 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 Algebra for STEM 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 Algebra for STEM or concurrent enrollment with instructor permission.

## **ENGLISH**

### **ENGL 0122 SUPPLEMENT TO COMPOSITION 1**

Designed to provide supplemental instruction for ENGL 1113 English Composition 1. Extra practice in grammar, writing, focus, and audience analysis, in addition to topics covered in English Composition 1. Students must be enrolled in ENGL1113 in the same semester as ENGL 0122. A student must have a 15-18 ACT score to enroll.

### **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: MATH 2145 Calculus I *and* / PHYS 2014 Engineering Physics I *or* PHYS 1114 General Physics I. Concurrent enrollment in ENGR 2111 is required. *Offered spring 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 or 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 fall 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 Kirchhoff'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).

## **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 trudges.

### **HPEA 1421 LIFE GUARD TRAINING**

Senior lifesaving. Leads to the Red Cross lifesaving 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 pompoms.

### **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 1232 PERSONAL TRAINING PRACTICUM I**

Students will observe and discuss personal training techniques used in various workout settings to enhance performance. Twenty five hours of observation required. *Offered fall semester only.*

**HPET 1233 INTRO TO PERSONAL TRAINING I**

This course is designed to introduce the field of personal training. It will introduce coursework relevant to personal training, such as screening and evaluating clients for safe participation, exercise prescription and other personal training topics. *Offered fall semester only.*

**HPET 1242 PERSONAL TRAINING PRACTICUM II**

Students will apply personal training techniques with various active populations of society. They will continue to discuss personal training techniques used in various workout realms. Seventy five hours of observation required. *Offered spring semester only.*

**HPET 1243 INTRO TO PERSONAL TRAINING II**

This course is designed to bridge the gap between clinical exercise science-related coursework and the practical application skills of personal training. A Certified Personal Trainer (CPT) credential\* is available through the National Council on Strength and Fitness (NCSF) upon completion of the course. Offered spring semester only. \*Upon successful passing of the National Council on Strength and Fitness Certified Personal Trainer (CPT) Exam, students will have earned the title of NCSF-CPT. Sitting for the exam is optional.

**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.

**HEALTH STUDIES**

**HLST 1113 MEDICAL TERMINOLOGY**

This course will introduce students to Latin and Greek base terminology used in the fields of medicine and health care. Students will learn a word-building system with specific emphasis on root words, prefixes, suffixes and abbreviations used in defining, spelling and pronouncing medical terms. This course is intended for students whose degree is in the medical field. It is recommended that students take this class prior to Anatomy or Physiology.

**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 2213 HISTORY OF NATIVE AMERICAN CIVILIZATION**

The course is a study of the historical development of Native American civilization with emphasis upon the art, music, literature, religion, law, and way of life of the Native American society. [Formerly ANTH 2363 Native American Culture] (Meets requirement for humanities elective)

### **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 2<sup>nd</sup> 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.

## **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 1133 BEGINNING PHOTOGRAPHY**

Basic photographic techniques and digital applications. A study of the fundamentals of photography for the beginning student or hobbyist interested in gaining a familiarization of basic concepts. The class will study the controls found on adjustable cameras, basic photographic techniques, composition, available light and flash photography, black & white and color images, and basic digital photography workflow.

### **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 2033 PRINCIPLES OF PUBLIC RELATIONS**

This introductory course provides a general overview of the theories and practices of public relations, including its historical development as a discipline, its international nature, and its current role in law, ethics, and globalized communication for both organizations and society.

### **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 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 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 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 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.

## **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 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 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.

## **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.

## **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 0021 SUPPLEMENT TO MATH APPLICATIONS**

This course is intended for supplemental instruction for Math Applications The topics covered may include solving equations, using formulas, graphing, percents, exponents, geometry, as well as other topics of concern that may arise. Students must be enrolled in a Math Applications class. **PREREQUISITES:** ACT 0-18 or appropriate test scores.

### **MATH 0031 SUPPLEMENT TO MATH FUNCTIONS**

This course is intended for supplemental instruction for Math Functions. The topics covered may include solving equations, using formulas, graphing, using the graphing calculator, rates of change and interpreting solutions. Students must be enrolled in a Math Functions class. Prerequisites: ACT 0-18 or appropriate test scores.

### **MATH 0122 SUPPLEMENT TO ALGEBRA FOR STEM**



Designed to provide supplemental instruction for topics covered in Algebra for STEM. Extra practice on factoring, solving quadratics, graphing, working with radical and rational expressions, in addition to other topics from Algebra for STEM that may require attention. Students must be enrolled in an Algebra for STEM class. Prerequisite: ACT 17-18 or appropriate test scores.

### **MATH 0123 PRE-STEM ALGEBRA**

Designed to provide in-depth applications of algebra necessary to complete college-level mathematics. 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: ACT 0-16 or appropriate test scores.

### **MATH 0132 STATISTICS SUPPLEMENT**

This course is intended for supplemental instruction for Statistics. The topics may include solving equations, using formulas, inequalities, graphing, probabilities, confidence intervals, hypothesis testing and regression. Prerequisite: ACT 0-18 or appropriate 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 MATH 0123 Concepts of Algebra or appropriate placement score. *Offered fall semester only.*

### **MATH 1233 PROBABILITY AND STATISTICS**

This course is an introduction to statistics, 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: MATH 1493 Math Applications or higher.

### **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: Appropriate test 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 statistical topics, application of loans, application of percent, compound and simple interest, APR, geometric topics, and credit card fee 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 prerequisite to any other mathematics course, but will fulfill the general education math requirement. Prerequisite: Appropriate test scores.

### **MATH 1513 ALGEBRA FOR STEM**

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. 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 Pre-STEM 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 Algebra for STEM or concurrent with MATH 1513.

#### **MATH 1715 ALGEBRA FOR STEM & 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 Pre-STEM 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: Appropriate test scores. 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: MATH 1483 Math Functions or MATH 1513 Algebra for STEM.

#### **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 Algebra for STEM and MATH 1613 Plane 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 1483, 1493, or 1513.

#### **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 1483, 1493, or 1513.

#### **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 1131 Ear Training & Sight Singing I.

### **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 harmonization. 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. Student must be concurrently enrolled in MUSC 1000 Private Instruction.

**MUSC 2831 MADRIGAL/CHAMBER SINGERS**

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

**NURSING**

**NURS 1002 NURSING BOOT CAMP**

Nursing Boot Camp is a fast-paced, highly interactive, five day course that promotes self-examination, empowerment, and thoughtful planning on the part of each learner. Concepts regarding the individual, teaching/learning, communication, and learning resources are explored. The nursing process and nursing education are examined carefully in the context of professional nursing. Principles pertaining to time management, learning, studying, and test-taking are also discussed and applied.

**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 FUNDAMENTALS OF NURSING 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**

### **NUTR 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 setting. This course will help the student develop a framework for resolving ethical issues with analytical grounding in the basic theory of ethics. (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 2<sup>nd</sup> 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.)

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 Algebra for STEM. (Meets general education Physical Science requirement.) Offered fall semester only on Enid campus.

### **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 Algebra for STEM and PHYS 1114 General Physics I. (Meets general education Physical Science requirement.) Offered spring semester only on Enid campus.

### **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 and summer semesters 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: MATH 1483 Math Functions or MATH 1513 Algebra for STEM or concurrent enrollment. (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 1483 Math Functions or MATH 1513 Algebra for STEM or concurrent enrollment.

### **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 1483 Math Functions or MATH 1513 Algebra for STEM 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.

### **PTEC 2450 SUPERVISED STUDY – CERTIFICATE PREPARATION**

Independent study course in preparation for an accredited examination for work in a process technology field. Examples of exams include but are not limited to the Waste Water Treatment Operator State Examination, Environmental Technician, exams provided by the American Society of Safety Engineers. Consent of instructor required. Credit 1 to 3 hours.

## **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

### **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. For Business majors, this course should be taken in the last semester of their degree plan.

## **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 or instructor's permission.

### **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.

## **RESPIRATORY CARE**

### **RESP 1114 - INTRODUCTION TO RESPIRATORY CARE PROCEDURES**

This course will explore the usage and purpose of supportive treatments for patients with pulmonary diseases and disorders using the American Association of Respiratory Care (AARC) clinical practice guidelines and protocols. The fundamentals of respiratory care covered by this course will include but not be limited to: Patient Assessment, Safety, History of Respiratory Care, Leadership and Professionalism, and Moral and Legal aspects of Respiratory Care. This course also includes Cardiopulmonary Anatomy and Physiology. Prerequisite: Admission to RT Program.

### **RESP 1121 CLINICAL APPLICATIONS 1**

This course provides introductory knowledge of the clinical setting and delivery of respiratory care, with an emphasis on the scope of therapeutic modalities delivered to patients. Included are medication nebulizers, oxygen therapy, IPPB, NPPV, chest physiotherapy, cardiopulmonary resuscitation and related life-saving maneuvers. Prerequisite: Admission to the Respiratory Care Program

### **RESP 1214 - RESPIRATORY THERAPY PROCEDURES II**

Respiratory Procedures II continues the training of students in the essential procedures which Respiratory Therapists perform in the clinical setting. Clinical Pharmacology is also included in this course; the basic concepts and principles in pharmacology, drugs used to treat the respiratory system, and critical care and cardiovascular drug classes. Prerequisites: RESP 1114 and Clinical Applications I

### **RESP 1223 CLINICAL APPLICATIONS II**

Continuation of Clinical Applications I, increasing knowledge of the clinical setting and delivery of respiratory care, with an increased emphasis on the scope of therapy delivered. Included here are oxygen therapy, IPPB, chest physiotherapy, cardiopulmonary resuscitation and related life-saving maneuvers, airway management including the use of various artificial airways, arterial puncture, arterial blood gas interpretation, bronchial hygiene, electrocardiograms, pulmonary function testing and beside pulmonary mechanics. Prerequisites: Clinical Applications I

### **RESP 1312 PULMONARY PATHOLOGY**

This course is a comprehensive study of the etiology, diagnosis, pathogenesis, pathophysiology, treatment, and prognosis of various types of pulmonary pathologies. Prerequisites: RESP 1114, RESP 1214 and Clinicals through Clinical Applications II

### **RESP 1323 CLINICAL APPLICATIONS III**

Continuation of Clinical Applications II with increasing knowledge of the clinical setting and delivery of respiratory care with an increased emphasis on the scope of therapy delivered including oxygen therapy, IPPB, chest physiotherapy, cardiopulmonary resuscitation and related lifesaving maneuvers, and airway management including the use of various artificial airways. Prerequisites: Clinical Applications I and II

### **RESP 2114 RT PROCEDURES III**

This course will teach the basics and parameters of Advanced Cardiac Life Support, Applied Anatomy and Physiology, Acute and Critical Care in accordance with the American Association of Respiratory Care guidelines and protocols. This course will also teach the basics and parameters of continuous mechanical ventilation, including special procedures. Students will learn acid-base physiology as it applies to ventilator changes. Laboratory applications will include proficiency in ventilator classification and functions and well as ventilator set-up and making ventilator setting changes in accordance with the American Association of Respiratory Care guidelines and protocols. Prerequisites: RESP 1114, 1214, 1312 and Clinicals through Clinical Applications III

### **RESP 2123 ADVANCED CLINICAL APPLICATIONS 1**

This course is a continuation of the practical application of theories previously presented with emphasis on the care and management of the critically ill and mechanically ventilated respiratory patient. Rotations will include the intensive care unit and ER. Prerequisites: RESP 1121, 1123, and 1232

### **RESP 2223 ADVANCED CLINICAL APPLICATIONS II**

This course is a continuation of the practical application of theories previously presented with emphasis on the care and management of the critically ill and mechanically ventilated respiratory patient and an introduction to pediatrics. Rotations will include the intensive care unit and ER, pediatric ICU.

### **RESP 2233 ADVANCED CLINICAL APPLICATIONS III**

This course takes place in the Neonatal ICU focusing on Neonatal and Pediatric intensive care. Prerequisites: 1121, 1123, 1232, 2123, and 2223

### **RESP 2324 - RT PROCEDURES IV**

This course will build student understanding of Mechanical Ventilation, Advanced Cardiac Life Support, Applied Anatomy and Physiology, Acute and Critical Care in accordance with the American Association of Respiratory Care guidelines and protocols. Pediatrics and Neonatology are included in this course, principles and practices of Pediatric Advanced Life Support. This course includes NBRC Board Examination Review. Prerequisites: RESP 1114, RESP 1214, RESP 1312, and Clinicals through Advanced Clinical Applications I

## **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 or have instructor's permission.

### **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. Meets social science (S) and diversity (D) criteria in transfer to OSU's SOC 2123 Social Problems.

### **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).

### **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 2813 HISTORY OF MUSICAL THEATRE**

In this course students will study the events (both historical and cultural influences) that led to the development of the art form of Musical Theatre. Students will develop skills to better enjoy, critique and understand American musical theatre through a critical review of production elements and musical theatre practices from all eras. (Meets requirement for humanities electives)

**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. Prerequisite: THTR 2963 Stage Lighting I.