

Course Descriptions

Accounting

ACCT 1101 Fundamentals of Bookkeeping

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

ACCT 1113 Basic Business Records I

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

ACCT 1123 Basic Business Records II

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

ACCT 1353 Casino Accounting

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

ACCT 2103 Accounting I—Financial

This course is an introduction to financial accounting concepts, principles and development of financial information. Course work includes the accounting processes and principles of accrual accounting. Prerequisite: MATH 1483 Math Functions or MATH 1513 College Algebra or instructor permission.

ACCT 2123 Computer Accounting I

Accounting computer software is utilized to carry out small business operations. The primary emphasis is on small business accounting applications. The course assumes the student has an understanding of accounting principles. Prerequisite: ACCT 2103 Accounting I-Financial. *Traditionally offered in the Fall semester only.*

ACCT 2153 Internal Auditing and Compliance for Casinos

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

ACCT 2203 Accounting II—Managerial

This course is 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

This course is 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 1114 Introduction to Agricultural Economics

The role of agriculture within the U.S. Economy; economic analysis of relationships between resources, production, income and consumption; introduction to economic systems; some applications for production and marketing. Prerequisite: math proficiency through MATH 0123 Intermediate Algebra.

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

AGRI 1124 Introduction to Animal Sciences

The role of livestock production for various species; examination of end-products and grading standards; biological aspects of production; introduction to management practices for various species.

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.

AGRI 1222 Horse Evaluation II

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

AGRI 1224 Introduction to Plant and Soils Science

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

AGRI 2123 Livestock Feeding

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

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 1314 Chemistry I.

AGRI 2222 Live Animal Evaluation

Modern tools for livestock selection including performance records, pedigree information and visual appraisal, and the practice of using these tools to evaluate critically various livestock species. Prerequisite: AGRI 1124 Introduction to Animal Science. 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 and techniques of evaluation and communicating the ideal concepts of market and breeding selection and participation in competitive livestock judging contests. 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. Students will also have the chance to travel with the NOC Sheep Show team and flock to various exhibitions.

American Indian Studies

AIS 1113 Introduction to Sovereignty and Tribal Governments

Students in this course will be introduced to the concept of tribal sovereignty and explore the many complications associated with the term. In order to gain a full understanding of the idea, students will examine aspects of history, law, self-governance, and taxation. Students will also explore the various structures and dynamics of tribal governments across North America. To this end, students will consider the many forms of tribal governments—both contemporary and historical—and the rights and responsibilities connected to managing a national, or tribal, government.

AIS 1213 Principles of Leadership in Indian Country

In this course, students will become familiar with the skills necessary to be an effective and dynamic leader in Indian Country. Topics covered include: public speaking, needs assessment, conflict management, as well as principles of diplomacy and etiquette. One primary focus will include tribal planning and implementation. This class is geared toward those students who eventually want to, or currently hold, leadership positions within a tribal government. Because of this, the course tends toward practical matters that arise in tribal government settings on a daily basis. Students will also learn how to write reports, memos, and business letters.

AIS 1313 Principles of Economic Development in Indian Country

This course allows students to explore both the practical and theoretical components of economic development as a major initiative in Indian Country. Successful economic development projects have allowed numerous Indian nations to achieve various levels of self-determination, which has thereby reduced their reliance on federal funding. Students will not only examine the dynamics of specific successful case studies of economic development in Indian Country, they will

also develop their own projects. Such issues as assessing needs, developing action plans, and implementing projects will be considered. In addition, students will also explore attributes of Federal law that guide and regulate economies within Indian Country.

AIS 1413 Office Management in Indian Country

Students in this course will become familiar with the day-to-day fundamentals of operating and managing an office in a professional setting. Major areas of focus will include personal development and employability skills, managing records, processing mail, keeping financial records, learning professional communication skills, processing business correspondence, operating office equipment, completing office support activities, and learning interviewing techniques. Students will be expected to build their communications skills—both verbally and written—and will be able to begin managing an office.

AIS 1443 Indian Country Today (Contemporary Issues)

This course will allow students to explore the more complicated concerns now inherent in Indian Country, including legal issues, repatriation, and cultural preservation. The main thrust of the class is to begin introducing students to finding creative ways to resolve major matters—whether pan-Indian or local. To this end, students will become familiar with the relationship Indian nations have with the federal government. Emphasis will be placed on understanding contemporary Indian problems in the context of specific cultural, historical and philosophical backgrounds.

AIS 2113 Partnership Building for Indian Country

Given the seemingly perpetual struggle of Indian nations to secure the federal funding necessary to operate programs and implement initiatives, Indian leaders will have to locate alternative sources of funding and capacity building. Students in this course will become familiar with the processes involved in establishing partnerships, negotiating contracts, authoring memorandums of understanding, and carrying out action plans. In addition, students will also learn how to set up 501(c)3 non-profit organizations, which will increase the likelihood of corporations and foundations partnering with an Indian nation. This course will require students to conduct intense research projects and possess the ability to communicate effectively.

AIS 2213 Fundraising & Grant Writing

In this course students will learn about the fundamentals of fundraising and grant writing, as both are vital to tribal growth and project implementation. Students will become familiar with the basic steps (and terms) as well as the research involved in authoring a grant proposal—whether to federal or state agencies, or to private foundations. In order to learn how to write successful grant proposals, students will examine both successful and unsuccessful examples. Students will be responsible for authoring a proposal, and they will work closely with a tribal entity to submit a fully-realized grant. Students will also consider various strategies for fundraising and carrying out successful initiatives.

AIS 2313 Indian Gaming—Regulations & Operations

Students in this course will examine the rise of the gaming industry in Indian Country and explore its far-reaching impact. To that end, students will become familiar with the regulations established by the National Indian Gaming Commission (NIGC); they will also learn about the rules that govern operating a casino. In addition, they will study a number of gaming ordinances and consider the benefits of establishing third-party gaming management offices. Completing such a course will allow students to understand how to manage either a gaming management office or a gaming facility. A discussion of business ethics will be ongoing during the course.

AIS 2413 Project Management & Coordination

Students will have an opportunity to learn the fundamentals of managing and coordinating projects, which will include their becoming familiar with creating budgets, writing invoices, organizing meetings, writing meeting agendas, writing memos, letter writing, and principles of effective communication. To that end, students will learn about the various phases and disciplines involved with construction projects and conflict resolution.

AIS 2750 Practicum in Indian Country

Second-year students in this course will have the opportunity to “learn in the field” as they receive supervised experience in an employment setting. Such internships are valuable in that they allow students to observe day-to-day operations of an Indian-run office—whether it be a government, business, or social services office. By observing and assessing an actual setting, the student will better understand both how an office operates and how its operations might be improved. This course will also allow students to begin establishing connections and relationships with Indian leaders. Students must receive the Director’s permission to enroll in the course, and the Director will work in conjunction with the student to secure a practicum in a specific setting if a student so wishes.

American Indian Studies--Cultural Studies

AIS 1124 Pawnee Language I

This course will introduce post-secondary students to the basic structures, sounds, and syntax of the Pawnee language. Areas of emphasis in this class include conversational practice, vocabulary-building, and the history and culture of the Pawnee Nation.

AIS 1224 Pawnee Language II

Students will continue to build upon the skills they acquired in the introductory language class and delve into more

complex conversational practice and vocabulary building. As such, this intermediate course is designed for the student who wants to gain the skills necessary to begin using complete sentences to converse in Pawnee.

AIS 1324 Pawnee Language III

Students in this class will be expected to have knowledge of the Pawnee language (both dialects) and will continue to pursue advanced studies of the language. To that end, students will begin to differentiate the subtleties between the Skidi and South Band dialects. They will also be able to demonstrate various degrees of fluency. As part of the class, students will conduct an outreach program that seeks to teach elementary students beginning Pawnee.

AIS 1423 American Indian Languages

This course offers students a survey of North American Indian Languages. The overview of native languages of North America will include topics such as history, distribution, diversity, government policy, language endangerment, elaboration of cultural domains, language and world view, speech styles, language structure (phonology, morphology, grammatical categories), performance (narrative, song), and writing systems.

AIS 2123 American Indian Music Studies

This course utilizes historical and contemporary sources to survey the music and music-related traditions of Native North America. In addition, students will examine traditional music and context from the Northwest Coast, Arctic, Southwest, Great Basin, Plains, Plateau, California, and Eastern Woodlands music-style areas, as well as contemporary neo-traditional and popular genres of American Indian music.

AIS 1523 Indian Art Studies I

This course introduces students to major American Indian art traditions of North America and to representative works ranging from traditional/tribal art to contemporary Indian art, thus enhancing aesthetic appreciation and deepening understanding. Periods covered will include pre-contact and early-contact-era traditions and the evolution of Indian art forms in contemporary times.

AIS 2223 Indian Art Studies II

This course offers a study of Native American Indian art forms which embrace history, myth, and tribal cultures as found in pottery, textiles, wood, and stone carving, basket making, jewelry, and other visually representative genres. Major consideration will be given to stylistic and aesthetic organization of the study of North American Indian Art. The course places an emphasis on contextualizing art as cultural manifestation. Cultures considered will range from the Plains to the Mississippi basin, to the eastern woodlands, the northwest, and southwest. Within the scope of this broad survey, the course emphasizes Plains Indian art and the development of the Native American Fine Arts Movement.

AIS 2323 Indians in Film, TV & Popular Culture

Students will examine depictions of American Indians in film, tv, and popular culture, which covers a span of some five centuries—beginning with Columbus' notebooks. The thrust of the course will be spent considering images of Indians as represented in Hollywood films and on television. More often than not, most images of Indians rely on stereotypes as opposed to well-developed characterizations. Students will scrutinize both historical and popular depictions and will delve into various reasons why such depictions were established and perpetuated. Once completed, students should have a broad knowledge of racial (Indian) stereotypes as maintained in Hollywood and promulgated by Popular Culture, the development and use of various archetypes (and how those types originated), as well as the kinds of imagery employed at this particular moment.

AIS 2423 American Indian Literature & Oral Tradition

This course offers a study of the development of two different types of communication within certain Indian cultures so as to provide an overview of the significance of written and verbal forms in Indian Country as it has been used over time. The role of storytelling in Indian communities cannot be overstated as it serves as a teaching device that allows members to gain an understanding of their historical context. Through written and oral stories, identities of Indian nations, different clans, families, and individuals are reinforced. By studying various genres of literature and oral stories, students will become familiar with structural patterns—in both written and verbal stories—major authors and orators, as well as issues relating to identity within certain Indian communities. As a result, students will gain a knowledge of the various forms of traditional oral literature, including narratives, oratory, and songs.

AIS 2443 American Indian Studies

This course offers a survey of American Indian people, cultures, and issues. Focus will be placed on both historical and modern experiences through readings from Native American autobiographies, contemporary narratives and literature, and reports of important topical issues such as land rights, Indian gaming, treaty law, etc.

AIS 2523 Creative Writing & Journalism in Indian Country

Since the role of storytelling in Indian Country is a central component to community identity, written forms of communication are also significant—whether through creative writing or reporting. Students in this class will be expected to write poems, short stories, memoir (autobiographical writing), as well as feature stories and reports. While working on these various projects, students will also read some of the works of major Indian writers so as to familiarize themselves with the movements of the last century. In order to achieve the course's goals, students will become oriented with the literary landscape in Indian Country and all its various nuances and be encouraged to submit their works to both Indian-related literary journals and newspapers.

AIS 2623 Pawnee Cultural Studies & History (including Astronomy)

This course will examine both aspects of the Pawnee culture and the Nation's major historical moments. Concerning

specific cultural aspects, students will become familiar with certain matters of traditional religion, family life, social structures, gender roles, and storytelling (teaching) dynamics. Students also will learn about traditional Pawnee (Skidi) astronomy, especially the ways in which they charted the stars and how daily planning and certain religious ceremonies were dictated by the appearance of various star patterns. By studying as much, students will learn about specific Pawnee traditions from presentations by tribal elders, by conducting research, and by visiting museums. Students will be encouraged to work with multimedia so that much of the information gathered in the class can be documented and preserved.

American Indian Studies--Artistic Studies

AIS 1133 Media Design for TV and Film I

The class introduces the structure of Media Design. Based on the principles of fundamental design in the area of drawing, different media are analyzed and suitable design methods are compiled. Apart from traditional media, such as picture, photo, and film, the class discusses the production of media design for television and film, CD-Roms, and computer animations and games. The course will also include treatments of: cognitive psychology, photography, computer graphics, television, film, computer animation, design interactive media, CD-ROMs, screen design, and game design. The use of computer technology will be a central element in the course.

AIS 1333 Graphic Arts I

Advanced Graphic Arts/Communications will provide the student with the opportunity to pursue an in-depth study, and perform advanced activities in several areas. These may include photography, photo editing, screen printing, offset printing, computer graphics, desktop publishing, film and flatbed scanning, multimedia presentations and Internet use. Students will also form teams and use problem solving techniques to design and produce media.

AIS 2133 Media Design for TV and Film II

Students in this course will be expected to continue studying principles introduced in Beginning Media Design. Further, they will be introduced to the uses of video camera equipment, lighting, microphones, organization of screen space, cuts-only and A/B role editing, and to the production relations in the TV production studio and control room. In addition, they will also learn about working with certain kinds of film equipment as well as various techniques used in producing film. Students will be expected to complete and present a production. The use of computer technology will be a central element in the course.

AIS 1233 Media Design for Radio I

Students will be introduced to both the technical and creative aspects, as well as the capabilities and utilization of audio media in production and direction. Applications in radio will be emphasized as students will begin to generate scripts for potential production and learn about producing programming for radio. A semester-ending portfolio is required.

AIS 2233 Media Design for Radio II

This course will be a continuation of the first course in that students will study techniques involved in the production of radio programs with emphasis on timing, content, and production techniques. Students will be expected to develop and produce the projects on which they have worked.

AIS 2333 Graphic Arts II

This course provides students a comprehensive study of the Graphic Arts Industry that focuses on product, reproduction processes, materials, equipment and Graphic Arts Careers. Related areas of instruction include design, relief printing, photo-offset lithography, screen printing, gravure, and finishing operation. Students will be expected to develop proficiency in the use of relief, offset, and screenprinting; develop skills in layout and design as it relates to the graphic arts field; develop an awareness of the scope of the graphic arts industry as it exists today; increase the appreciation and develop an eye for creative designs; develop proficiency in the image generation and image conversion.

AIS 2433 Techniques of Painting

Students in this course will become familiar with contemporary areas relative to medium and technique, the painting process as a means of communication, and integration of 20th century concepts. They will also be able to solve visual and technical problems in several media and promote the development of good craftsmanship through self-evaluations. In addition, they will be conversant and demonstrate basic artistic vocabulary and visual literacy through testing. Upon successful completion of this course, the student will be able to create more personal expressions in their work and relate their ideas to other students. The student will be able to analyze the works of other artists and incorporate selected elements into their own work. The student will also be able to identify the expressive elements that emerge in fellow students' work and interpret meaning.

AIS 2533 Techniques of Pottery Making

The student will combine hand-built and wheel-thrown forms to create functional and decorative pottery. More complex pieces such as pitchers and sculptural forms, as well as advanced decorating techniques, will challenge the advanced potter to develop individual style and to create pottery forms in series. In addition, students will conduct in-depth studies of the history of pottery, especially as it concerns Indian Country (in general) and the Pawnee Nation (specifically).

AIS 2633 Techniques of Bead Working

Students will study principles of bead work and bead work design. Though the main thrust of the course will cover Plains Indian designs, students will be encouraged to explore styles from across the globe. Aside from becoming familiar with

constructing bead work, students will also learn about the development of bead work and its historical significance. At the end of the class, students will have: completed a minimum of four pieces, which will include designing the work, understanding the use and care of bead work tools, and learning to evaluate the design and craftsmanship of finished pieces of bead work.

AIS 2733 Techniques of Traditional Metal Work

This course is an introduction to the construction of Southern Plains Metal work designs in metal and small casing techniques. The student will compile a notebook and portfolio of works with a minimum of 8 finished pieces that demonstrate a basic knowledge of jewelry design and an understanding of fabrication techniques, soldering, and finishing. By the end of the course, students will 1) Design and fabricate a minimum of 8 pieces of jewelry, 2) Design and cast a minimum of 2 pieces of jewelry, 3) Understand the use and care of jewelry tools, 4) Learn to evaluate the design and craftsmanship of finished pieces of jewelry, 5) Develop understanding of the use of precious metals and materials in the design and construction of jewelry.

Anthropology

ANTH 2353 General Anthropology

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

ANTH 2363 Native American Culture

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

Art

ART 1103 Introduction to Film & Video

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

ART 1113 World Art

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)

ART 1193 Ceramics I

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

ART 1203 Art History Survey I

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

ART 1303 Art History Survey II

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

ART 1313 Drawing I

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

ART 1323 Drawing II

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

ART 1433 Fundamentals of Two-Dimensional Art

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

ART 2103 Film as Art

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

ART 2113 Figure Drawing I

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

ART 2193 Ceramics II

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

and supervised firings.

ART 2213 Figure Drawing II

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

ART 2333 Sculpture I

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

ART 2433 Sculpture II

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

ART 2440 Supervised Study- Drawing

Independent study.

ART 2450 Supervised Study- Art

Independent study.

ART 2460 Internship in Art

ART 2501 The Human Figure

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

ART 2563 Fundamentals of Three-Dimensional Art

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

ART 2611 Film Festival I (H*)

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

ART 2621 Film Festival II (H*)

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

ART 2631 Film Festival III (H*)

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

ART 2641 Film Festival IV (H*)

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

ART 2651 Film Festival V (H*)

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

ART 2661 Film Festival VI (H*)

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

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

ART 2713 Art For Digital Media

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

ART 2853 Painting I

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

ART 2863 Painting II

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

ART 2933 Watercolor Painting I

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

ART 2943 Watercolor Painting II

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

ART 2951 Portfolio/Gallery Seminar

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

Astronomy

ASTR 1014 The Solar System

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. (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 1514 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

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.

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. Prerequisite: ASTR 1514 or ASTR 1503 or permission.

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.

Aviation

AVIA 1113 Theory of Flight

A ground school course covering Federal Aviation Regulations, theory of flight, power plant operation, service of aircraft, principles of navigation and meteorology. Fulfills the ground school training needed for a Private Pilot Certificate. (Meets general education Physical Science requirement.)

AVIA 1222 Flight Training

Meets the flying requirements for a Private Pilot Certificate. Includes all maneuvers and cross-country flying required by the Federal Aviation Administration for the issuance of a Private Pilot Certificate. Requires a minimum of 20 flight hours with an instructor and 15 hours of solo flight.

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. Appropriate laboratory work and demonstrations to implement the fundamental principles and concepts learned in theory. (Meets general education Biological Science requirement.)

BISI 1214 Introduction to Environmental Science

An introduction to basic principles and concepts of ecology. Special emphasis on current environmental problems and control measures. Appropriate laboratory work and demonstrations to implement the fundamental principles and concepts learned in theory. (Meets general education Biological Science requirement.)

BISI 1314 General Botany

Introduction to plant growth, development, and reproduction from molecular, cellular, physiologic and anatomical aspects. Genetics, classification and economical and environmental aspects will be surveyed. Laboratory covers theory principles. Offered spring semester only. (Meets general education Biological Science requirement.)

BISI 1414 General Zoology

An introduction to biological principles and concepts as related to animal sciences with emphasis on structure, function and evolution of animals—invertebrate and vertebrate forms. A brief survey of animal classification based on embryological, physiological, ecological and genetic evolutionary developments. Laboratory applies principles and concepts learned in theory. (Meets general education Biological Science requirement.)

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 or BISI 1414 General Zoology.

BISI 2104 Human Anatomy

An introduction to the areas and microscopic structure of the various organ systems of the human body; covers tissue and following organ systems; integumentary, skeletal, muscular, nervous, digestive, cardiovascular, respiratory, lymphatic, urinary and reproductive. Lab required. Prerequisite: Previous biological science or CHEM 1314 Chemistry I. (Meets general education Biological Science requirement.)

BISI 2124 Microbiology

A survey of the Monera, Protist and Fungal Kingdoms, with emphasis on their morphology, physiology, immunology, and disease aspects. 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: Previous biological science course with laboratory, CHEM 1314 Chemistry I or concurrent enrollment. (Meets general education Biological Science requirement.)

BISI 2204 Human Physiology

An introduction to the cellular and gross functions of the various organ systems of the human body; covers cellular metabolism and the physiology of the following organ systems; skeletal, muscular, nervous, digestive, cardiovascular, respiratory, lymphatic, urinary, and reproductive. Lab required. Prerequisite: CHEM 1314 Chemistry I or any previous biological science. (Meets general education Biological Science requirement.)

BISI 2214 Human Anatomy and Physiology

An introduction to the physiological principles and concepts as related to the human body. A course designed for students in the fields of physical education, nursing, and related pre-professional areas. Laboratory designed to emphasize principles and concepts learned. Prerequisites: Previous biological science course with laboratory, CHEM 1314 Chemistry I or concurrent enrollment. (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 1414 General Zoology or BISI 1314 General Botany.

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

Biotechnology

BIOT 1003 – Laboratory Safety and Regulatory Compliance

This course provides the student with practice in OSHA requirements for personal protective equipment, safety showers, eye wash stations, fire fighting equipment and procedures, and safe behavior in the laboratory. Use of MSDS sheets, proper NFPA labeling, and specific safety protocols for laboratory equipment and chemicals are included. In addition, the student will receive experience in documentation of laboratory results, proper maintenance of a laboratory notebook, writing and following laboratory protocols, completion and use of a chain of custody, and maintenance of chemical inventory logs. Student is also introduced to federal regulations and regulatory agencies. Lecture 3 Hours. No Laboratory.

BIOT 1014 – Standard Laboratory Techniques I

This course provides the student with skills in calculation and application of scientific notation, significant figures, the metric system, use of conversion factors, percents, fractions, basic algebra and word problems, and creating and interpreting graphs. Student will also gain practice in performing common laboratory calculations. Lecture 4 Hours. No Laboratory.

BIOT 1024 – Standard Laboratory Techniques II

This course familiarizes the student with common laboratory glassware and utensils, balances, reading volume, utilization of pipettes and micropipettes, utilization of various heat sources and stirring devices, safe operation of the centrifuge and autoclave, and proper use and care of common laboratory equipment such the microscope and pH meter. Student will also gain practice in housekeeping duties and application of the scientific method. Lecture 1 Hour. Laboratory 3 Hours.

BIOT 1103 – Introduction to Biotechnology

This course serves as an orientation to the field of biotechnology and the Biotechnology Program at Meridian Technology Center. Students will become familiar with professional expectations of behavior and dress and will receive an introduction to the Career Technology Student Organizations. Students will become familiar with important events in the development of biotechnology, explore the applications of biotechnology in industry, agriculture, diagnostics, and medicine, and study the impact of bioethics on the field of science and their daily lives. Students will be required to

research the career options available in the field of biotechnology and laboratory science, and will give an oral presentation about a specific field of study. Lecture 3 Hours. No Laboratory.

BIOT 1034 – Fundamentals of Biotechnology I, 4 Credits

This course provides students with practice in the preparation and staining of specimens for microscopic evaluation, identification of basic cell structures, preparation of chemical solutions from powders and liquids, aseptic technique, preparation of culture media, specimen handling protocols, maintenance of pure cell cultures, and microbial sensitivity testing. Lecture 1 Hour. Laboratory 3 Hours.

BIOT 1044 – Fundamentals of Biotechnology II

This course provides students with practice in the isolation, amplification, and characterization of DNA, and isolation and characterization of proteins. Students will also become familiar with the use of ELISA assays, and will receive advanced training on equipment use and maintenance. Lecture 2 Hours. Laboratory 2 Hours.

BIOT 1115 – Agricultural and Pharmaceutical Biotechnology I

This course provides the student with experience in maintenance and manipulation of plants in a laboratory setting (including growth, breeding, asexual reproduction, plant tissue culture, and genetic transformation of plants), as well as extraction and analysis of potential pharmaceuticals from plants and plant material. Lecture 2 Hours. Laboratory 3 Hours.

BIOT 1215 – Agricultural and Pharmaceutical Biotechnology II

This course provides the student with advanced training in the maintenance and manipulation of plants in a laboratory setting (including genetic transformation and cloning of plants), as well as continued practice in the extraction and analysis of potential pharmaceuticals from plants and plant material. Lecture 2 Hours. Laboratory 3 Hours.

BIOT 1114 – Introduction to Forensics I

This course introduces students to the principles and practices found in forensic science laboratories. Topics covered in this course include crime scene procedures and practices, the collection of evidence, and the basis of analysis of that evidence. An emphasis will be placed on the proper procedures involved in maintaining the chain of custody of evidence in a variety of contexts. Lecture 4 Hours. No Laboratory.

BIOT 1214 – Introduction to Forensics II

Students will receive an introduction to the application of scientific methods for the examination of physical evidence in the criminal justice system; an overview of the forensic analysis of materials such as firearms, fingerprints, drugs, blood, hair, fibers, paint, glass, arson debris, etc. Lecture 3 Hours. Laboratory 1 Hour.

BIOT 1124 – Introduction to Forensic Laboratory Techniques

Students will receive hands-on training in the application of scientific methods for the examination of physical evidence in the criminal justice system in the laboratory environment. Lecture 1 Hour. Laboratory 3 Hours.

BIOT 1054 – Fundamentals of Biotechnology Techniques I

This course provides the student with advanced practice in in vitro DNA synthesis reactions, programming and use of thermal cyclers for PCR reactions, and utilization of real time PCR technology. Lecture 1 Hour. Laboratory 3 Hours.

BIOT 1064 – Fundamentals of Biotechnology Techniques II

This course provides the student with advanced practice in Southern and Western blotting techniques, protein extraction and analysis, and ELISA technology. Lecture 2 Hours. Laboratory 2 Hours.

BIOT 1074 – Fundamentals of Biotechnology Techniques III

This course provides the student with practice in the use and long-term maintenance of cell lines, including microbial, plant, and animal cell lines. Lecture 2 Hours. Laboratory 2 Hours.

BIOT 1125 – Microbial Biotechnology I

This course provides the student with skills in techniques commonly employed in the microbiology laboratory, including isolation of pure bacterial cultures from a variety of sources, utilization of specialized media, microbial sensitivity testing, freezing and long-term maintenance of bacterial cell lines, and utilization of automated plating and colony counting equipment and commercial microbial identification systems. Lecture 2 Hours. Laboratory 3 Hours.

BIOT 1224 – Microbial Biotechnology II

This course provides the student with experience in utilizing microbes in an industrial setting. Coursework covers topics such as bacterial transformation, the scale-up process, fermentation, and retrieval and purification of microbe-produced compounds. Lecture 2 Hours. Laboratory 2 Hours.

BIOT 1225 – Wastewater and Environmental Testing Techniques

This course introduces students to environmental samples, including the proper quality control measures which accompany sampling, testing, and clean up. A basic understanding of environmental laws, specifically in Oklahoma, is reviewed. The course prepares the student for the Class D Water and Waste Water License test. Lecture 3 Hours. Laboratory 2 Hours.

BIOT 1135 – Introduction to Phlebotomy

This course provides the student with a study of the basic concepts of phlebotomy and of the responsibilities of the phlebotomist. The course will cover such topics as job responsibilities, organizational structure of a laboratory, basic understanding of major body systems, collection equipment, blood collection procedures, infection control, safety, specimen transport and processing, quality control, and professionalism. Lecture 5 Hours. No Laboratory.

BIOT 1234 – Phlebotomy Techniques

This course provides the student with an overview of venipuncture and capillary puncture techniques for obtaining blood

specimens for laboratory analysis. Lecture 1 Hour. Laboratory 3 Hours.

BIOT 1223 – Phlebotomy Practicum

This course provides the student with a clinical internship in a health care institution where knowledge and skills and actual job performance are integrated in a clinical program. No Lecture. Laboratory 3 Hours.

BIOT 1243 – Medical Biotechnology Techniques I

This course familiarizes the student with basic skills utilized in medical and diagnostic laboratories. The student will gain skills in sample collection and handling, blood collection and analysis, urinalysis, ELISA technology, cell counts, and tissue section preparation. Lecture 2 Hours. Laboratory 1 Hour.

BIOT 1253 – Medical Biotechnology Techniques II

This course provides the student with continued practice in skills utilized in medical and diagnostic laboratories. The student will gain advanced skills in blood collection and analysis, urinalysis, ELISA technology, cell counts, and tissue section preparation. Lecture 1 Hour. Laboratory 2 Hours.

BIOT 1260 – Biotechnology Laboratory Sciences Practicum

Students who have a passing grade, appropriate attendance and professional behavior, the recommendation of the instructor, and transportation may be placed in industry sites for on-the-job training. Students may also obtain part-time paid employment in program-related areas and receive practicum credit. Alternatively, students may apply for a research project with a local PI. Research will be done in the Biotechnology laboratory under the supervision of the instructor. No Lecture. Laboratory 1-3 hours.

Business Management

BMGT 1213 Spreadsheets

This course covers all aspects of Spreadsheet software, from the basics to extensive coverage of macros and other advanced commands. Classroom curriculum will include hands-on experience with each particular concept.

BMGT 1231—Excel Seminar

An introduction to the basic aspects of Microsoft Excel.

BMGT 1321—Word Seminar

An introduction to the basic aspects of Microsoft Word.

BMGT 1431—Access Seminar

An introduction to the basic aspects of Microsoft Access.

BMGT 1711—PowerPoint Seminar

An introduction to the basic aspects of Microsoft PowerPoint.

BMGT 2143 Marketing

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

BMGT 2163 ECommerce/Internet Marketing

Course places emphasis on communications, marketing strategy and trends in marketing functions of the Internet. Examples from the Internet will be required. *Traditionally offered in the Spring semester only.*

BMGT 2233 Human Resource Management

Course presents a study of principles and techniques of management in the development of personnel. Topics covered include application of methods of selection, placement, evaluation, motivation, human relations, employment laws and fringe benefits. *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.

BMGT 2263 Principles of Management

Course presents instruction in principles of management that have general applicability to all types of enterprise. Topics covered include basic management philosophy and decision making, recent concepts in management, principles involved in planning, organizing, directing and controlling. *Traditionally offered in the Fall semester only.*

Business Administration

BSAD 1103 Introduction to Business

This course provides an introduction to business, survey of basic functions, principles and practice of business in the nation and the world.

BSAD 2113 Business Communications

Course presents an overview of the principal elements of effective communication in business, both oral and written. Topics covered include theory and practice in handling business situations, with an emphasis upon the use of correct English, practical psychology and judgment. 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 0121 Basic Science Lab

BSCI 0123 Basic Science

Designed to introduce the student to the principles of basic physical and biological science. Basic science emphasizes laboratory techniques 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. (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. Prerequisite: math proficiency through intermediate algebra (MATH 0123). (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. 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. Prerequisite: CHEM 1014 Concepts in Chemistry or higher level chemistry course. (Meets general education Physical Science requirement.)

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, even driven programming, tool box controls and properties, basic control structures and dynamic arrays. *Traditionally offered in the Fall semester only.*

CS 1113 Computer Concepts

An introduction to the basic concepts of computer technology. Hands-on use of computers will introduce computer operating systems; file management; Internet; use of system tools; word processing, spreadsheet, database and presentation software.

CS 2113 Pascal Programming

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

CS 2123 Business Technologies and Applications

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

CS 2223 COBOL Programming

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

CS 2243 Advanced COBOL Programming

This course is a continuation of COBOL Programming. Topics will include sequential and relative file access methods and updating, indexed sequential file access methods including sequential and random updating, advanced table handling routines, intrinsic sorts, segmentation and the use of subprograms. Prerequisite: CS 2223 COBOL Programming.

CS 2303 Java Programming

This course focuses on teaching the Java language plus practical object-oriented principles. It teaches students how to develop Java applets and applications. *Traditionally offered in the even year Spring semesters only.*

CS 2313 Programming with C++

This is a course in programming using the language C++ that includes fundamental control structures, files, input/output, and arrays. *Traditionally offered in the odd year Spring 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 2114 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.

CRMJ 2223 Organization and Administration of Law Enforcement

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

CRMJ 2233 Juvenile Delinquency

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

CRMJ 2401 Crime Scene Photography Seminar

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

CRMJ 2450 Supervised Study in Criminal Justice

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

Learning Assistance

DEVS 0123 Learning Assistance

Learning Assistance is a course designed to assist students with a specifically identified learning disability. Enrollment is

permitted only with permission of a counselor.

DEVS 1101 OR DEVS 1102 Academic Success Strategies

Digital Media, Animation and Design

DMAD 1113 Introduction to Digital Video – 2D Animation

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

DMAD 1123 Web Design - Dreamweaver

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

DMAD 1133 Introduction to 3D Animation - Maya

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

DMAD 1142 Media Ethics

This course will explore the current ethical and legal issues that apply in today's changing environment of entertainment and multimedia. Students will discuss the morality of P2P distribution, copyright issues and the rights of intellectual property. Students will develop a better understanding of the responsibility that they face in order to make an ethical decision pertaining to specific issues.

DMAD 1213 Graphic Design - Photoshop

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

DMAD 1223 Intermediate Web Design - Flash

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

DMAD 1233 Digital Filmmaking

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

DMAD 2311 Digital Audio Production

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

DMAD 2313 Motion Graphics I

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

DMAD 2321 Video Editing Basics

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

DMAD 2323 3D Animation II - Maya

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

DMAD 2331 DVD Basics

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

DMAD 2333 3D Animation III - Maya

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

DMAD 2343 Texturing - Photoshop

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

DMAD 2353 Digital Video II – Post-Production

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

DMAD 2363 Motion Graphics II

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

DMAD 2373 Motion Graphics III

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

DMAD 2383 Multimedia Project

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

Drafting

DRFT 1103 Introduction to Drafting

This is the introductory course to the Drafting and Design program. Students will study drafting occupations and employment opportunities, personal traits or skills that are important for a successful drafter, safety, basic drafting terminology, tools and equipment, and lettering. Students will learn CAD applications.

DRFT 1113 Introduction to AutoCAD

This is an introductory course with emphasis on using AutoCAD software. Areas covered include: lines, supplies and materials, computer hardware, file usage and manipulation, basic drafting techniques, mechanical drafting, specialty disciplines, plotting/printing, and advanced CAD.

DRFT 1140 Special Problems in CAD

This course is designed with flexible credit for students wanting one to three hours of credit in additional computer-aided drafting. It consists of a design project with emphasis on further 2D and/or 3D use of the computer. Prerequisite: Introduction to AutoCAD (DRFT 1113), Advanced Computer-Aided Drafting (DRFT 2103) or permission of instructor.

DRFT 1143 Technical Drafting I

This is a basic computer-aided drafting course. Areas covered include reproduction, sketching, geometric constructions, and print reading. ANSI standards are used as the basis for correct drafting practices.

DRFT 1152 Technical Drafting II

This is a continuation of Technical Drafting I. Areas covered include orthographic views, auxiliary views, tolerancing, fasteners and hardware, manufacturing processes, and development and intersections. ANSI standards are used as the basis for correct drafting practices.

DRFT 1204 Machine Drafting

This is a continuation of the study of ANSI standards. Attention is given to the construction of machine working drawings, both details and assembly. Areas covered will include dimensioning, sectional views, drawing format, reference material, layouts and working drawings, and dimensioning and tolerancing.

DRFT 2212 Technical Illustration

This is a continuation of the study of ANSI standards. Areas covered will include sketching, isometric construction, rendering pictorials, axonometrics, obliques and perspectives.

DRFT 2223 Architectural Drafting I

This is the first course in preparing an individual to become an architectural apprentice drafter. Students will begin to apply skills they have learned in the basic and technical drafting courses to residential and light commercial construction.

DRFT 2243 Architectural Drafting II

This course is a continuation of Architectural Drafting I. Students will continue to develop skills and techniques necessary to produce architectural working drawings.

DRFT 2333 3D (Three Dimensional) Modeling

This course will emphasize the construction of three dimensional drawings and designs. Areas covered will include three dimensional drawing and design, axonometrics, obliques, and perspectives.

DRFT 2433 Animation

This course teaches students to do architectural walk-throughs. Students will be provided tools to create architectural and mechanical animations.

DRFT 2453 CAD Practicum

This course is an emphasis on application of skills previously acquired in the drafting and design program. Special projects will be assigned and evaluated by the instructor.

DRFT 2463 CAD Internship

This course is an emphasis on application of skills previously acquired in the drafting and design program. A co-operative agreement between industry and education that allows students to utilize and refine skills previously learned in their educational process. All work is to be performed in accordance with industry standards and guidelines and will be supervised by industry and school representatives.

Earth Science

ESCI 1214 Earth Science

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

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

Economics

ECON 2113 Macroeconomic Principles

This course introduces the functioning of the aggregate economy. Topics include national income, employment, inflation and the price stabilization, fiscal policy, monetary policy and aspects of the international interdependence. Prerequisite: MATH 1483 Math Functions or MATH 1513 College Algebra.

ECON 2123 Microeconomic Principles

This course addresses specific components of an economic system with emphasis given to the theory of the firm, cost of production, factor prices, income distribution and international trade and finance. Prerequisite: MATH 1483 Math Functions or MATH 1513 College Algebra.

English

ENGL 0123 Basic Composition

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

ENGL 1113 English Composition I

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

ENGL 1213 English Composition II

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

ENGL 1223 Technical Writing

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

ENGL 1450 Language Arts Seminar

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

ENGL 2233 English Grammar for Educators

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

ENGL 2413 Introduction to Creative Writing

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

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 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.

Pre-Engineering

ENGR 2111 Engineering Mechanics I

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

ENGR 2113 Statics

Topics include: resultants of force systems, static equilibrium of rigid bodies, statics of structures, distributed forces, centroids, internal forces, friction and moment of inertia. Shear and moment diagrams. Prerequisites: PHYS 2014 Engineering Physics I and MATH 2145 Calculus I.

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.

Electronics Technology

ET 1103 Fundamentals of Electricity & Electronics

Principles of electricity covering the applicable units and the activities of current flow, electrical pressure, Ohm's Law, Kirchoff's Laws, magnetism, inductance and capacitance and complex networks and applications.

ET 1113 Electronics Devices and Amplifiers

Solid state devices used in amplifiers, power supplies and regulation systems. Lecture, discussion, demonstration and application by computerized simulation and laboratory experiences followed by a formal laboratory report. Prerequisite: Fundamentals of Electricity (ET 1103).

ET 1123 Electrical Motor Controls

Students in this course will apply the principles learned in Fundamentals of Electricity to various industrial applications using electrical motor controls. Students will study industrial electrical symbols and line diagrams, logic as applied to line diagrams and control circuits, AC contractors and motor starters, reversing circuits as applied to motor types and electromechanical and solid state relays. Instruction will include application and installation of control devices and applications of photoelectric and proximity controls. Safety will be emphasized throughout the course.

ET 1162 Electronic CADD

Electronic CADD will enhance the student's ability to design in schematic form analog and digital context. This course will emphasize design and analysis using computer-aided design and drafting programs (ORCAD SDT and ORCAD PCB). Being

functional with ORCAD relates to the latest of design and construction technologies. After tutorial for PCB is completed, programs developed will be executed through and in conjunction with the electronic construction and design projects in Electronic Construction and Design (ET 2731).

ET 1223 Electronic Amplifiers

Theory and application of amplifiers using bipolar devices covering the design and analysis of RC coupled, direct coupled and transformer coupled circuits through differentiation. Bias stabilization and feedback techniques are emphasized. Prerequisite: Electronic Devices and Amplifiers (ET 1113); Co-requisite: Circuit Analysis (ET 1243).

ET 1243 Circuit Analysis

Transient analysis of electric circuits, network theorems and their applications to both passive and active configurations. This will include resonant circuits and filters, alternating current power and three-phase delts and wye applications. Prerequisites: Fundamentals of Electricity (ET 1103) and College Algebra and Trigonometry (MATH 1715); Co-requisite: Electronic Amplifiers (ET 1223).

ET 1252 Pneumatic Systems

This introductory course in pneumatic fluid power not only covers theory and principles, but also relates their application with industrial components. After demonstrating the principles, separate labs cover component inspection and performance, with tips on application in actual practice. Attention to safety practices throughout stresses the building of safe work habits.

ET 1311 Precision Measurements & Measuring Devices

A course designed to increase individual knowledge in areas of measuring devices and systems including standard and metric systems, scales and rules, vernier scales, micrometer and gauges.

ET 2002 Hydraulic Systems

This course is designed to integrate the theory and application of fundamental fluid power principles and formulas. The course will offer students actual hands-on experience with the functional characteristics of hydraulic components which include pumps, flow valves, pressure valves, directional valves, hydraulic motors, filters, cylinders and accumulators. Students will learn field circuit/component adjustment techniques and in-depth troubleshooting.

ET 2202 Mechanical Systems

Students in this course will learn to select, inspect, maintain and repair components of a mechanical system. Topics will include flexible drives, couplings, bearings, gears, lubrication techniques and troubleshooting a mechanical system. Safety will be emphasized throughout the course.

ET 2243 Operational Amplifiers Techniques

This is a study of the operating principles that are fundamental to the creation of pulse and digital logic switching systems. Beginning with operational amplifiers structure and theory through the conversion of digital and analog applications. Prerequisite: Electronic Amplifiers (ET 1223).

ET 2373 Digital Logic Analysis

The study of digital codes, number systems, Boolean Algebra, logic simplification, code converters, multiplexers, demultiplexers, flip flop registers, counter circuits, shift registers and analog to digital interfacing.

ET 2460 Internship in Electronic Technology

ET 2513 Process Instrumentation & Control

This course addresses the nature of accessing, measuring and controlling phenomena such as level, flow, pressure and temperature. Students will use devices and formulas that make process instruments work. Theory will emphasize the elements of physics and math needed to evaluate functions and the lab activities or experiments turn the theory into a physical event. Emphasis will be on testing, calibration and record keeping. This course will address the basics of troubleshooting control loops, and the transducers, transmitters, signal conditioners, control valves and controllers that provide process systems with their brain and their brawn.

ET 2731 Electronic Construction & Design

Laboratory projects involving techniques required of modern electronics engineering technicians. Design, prototype, circuit test and analysis, fabrication in printed and wired final format. Prerequisites: Operational Amplifiers Techniques (ET 2243) and Digital Logic Analysis (ET 2373).

ET 2812 Microcomputer Servicing

This course covers the general preventive maintenance procedures for microprocessor-based equipment. Students will continue their study of basic Input/Output systems and the mass storage systems commonly used in microcomputers. Safety will be emphasized throughout the course.

ET 2813 Microcomputer Applications-System

A study of maintenance of microcomputer systems, connections, timing, and troubleshooting computer circuitry. Digital interfacing, analog interfacing, multiple microprocessor systems and buses, microcomputer system peripherals, data communications, networks, fiber optics splicing and networking with fiber optics multiplexers. Prerequisites: Operational Amplifiers Techniques (ET 2243) and Digital Logic Analysis (ET 2373).

ET 2822 Microcomputer Networks

This course covers the vocabulary needed to be considered "network literate". Students will progress through the organization and management of a network including the step-by-step process of installing a network.

ET 2823 Microcomputer Troubleshooting & Repair

This course covers the fundamentals of troubleshooting microprocessor-based equipment. Students will learn the theory of hardware and software used to trouble-shoot and then apply that knowledge to actual microprocessor systems. Safety will be emphasized throughout the course.

ET 2853 Programmable Logic Controllers

Programmable logic controls, industrial robotic circuits and systems are studied along with realistic laboratory theory, installation, analysis and corrective maintenance techniques of system components are stressed.

WIND 1313 Introduction to Wind Energy

This course is designed to familiarize the student with the evolution of wind technology, wind energy anatomy, wind farm design, and characteristics of energy sources. This course include tower rescue training/climb test and first aid/CPR certification.

WIND 2313 Wind Turbine Materials and Electro-mechanical Equipment

Identification and analysis of the components and systems of a wind turbine. Prerequisite: WIND 1313.

WIND 2413 Wind Power Delivery System

In-depth study of the components of the input and output electrical power delivery systems for wind generation.

Prerequisite: ET 1243.

WIND 2323 Wind Business

Topics in business as they apply specifically to the wind energy industry.

WIND 2423 Turbine Troubleshooting & Repair

Practice of installation, operation, maintenance, troubleshooting and repair of wind turbine electro-mechanical systems.

WIND 2321 Wind Energy Capstone (LEAD 2321 Principles of Leadership)

The Wind Energy Capstone course is designed to assist students in the transition from college to their career in wind energy. 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 wind energy work environment. Emphasis will be on time management/organizational skills; resume development posting; interview, communication, and presentation skills; first impression management; and etiquette.

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

A course where students will study and analyze 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. Prerequisite: 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)

Graphic Arts

GRAT 1113 Introduction to Graphic Arts

Development of graphic arts processes, layout and design, copy preparation, typography, printers' mathematics, proofreading, methods of composition, presswork and bindery operations.

GRAT 1143 Copy Prep Design and Layout

Copy preparation for photo-offset lithography process; use of cold and photo-type composition; paste up procedures; proof-reading, layout and advertising composition; fundamentals of design and layout; application of the principles of design, copy fitting and planning production jobs.

GRAT 1223 Graphic Arts Camera I Pre-Press Technology

Procedures for working on a graphic arts process camera/Imagesetter; use of graphic arts chemicals in the darkroom; procedures for shooting one and two color negatives; procedures for film output on the imagesetter and developing the material. Use of densitometer for shooting halftone copy.

GRAT 2243 Offset Presswork I

Operation of offset presses. Emphasis on problems and techniques of offset presswork for duplication and production presses. Related problems in ink and paper relationships. Press maintenance and supervision of press equipment.

GRAT 2253 Offset Presswork II

The operations in running two, three and four color work on the A.B. Dick, 360 offset press and a larger offset press (Itek 3985).

GRAT 2270 Printing Production I

This course is designed to correlate the laboratory experiences gained in the areas of composition, presswork and bindery. Emphasis will be on newspaper and job production practices.

GRAT 2280 Printing Production II

This course is designed to correlate the laboratory experiences gained in the areas of composition, presswork and bindery. Emphasis will be on job production and supervisory practices. Prerequisite: GRAT 2270 Printing Production I or concurrent enrollment.

GRAT 2450 Supervised Study in Graphic Arts

Independent study.

GRAT 2460 Internship in Graphic Arts

A cooperative agreement between industry and education which allows students to utilize and refine skills previously learned in the educational process. All work is to be performed in accordance with industry standards and guidelines and will be supervised by industry and school representatives.

Health Services Technology

HLST 1012 Medical Math

This course is designed to prepare the student with the skills and techniques needed to accurately calculate medication dosages as well as interpret physician orders and drug labels. Early chapters provide a detailed review of basic math and algebra skills. A variety of calculation methods is introduced, including ratio and proportions, fractional proportions, formula methods and dimensional analysis.

HLST 1111 Medical Asepsis

This course provides an overview of the hazards related to the health care profession. It provides accident prevention measures that will protect the healthcare provider, co-workers and patients. Students will demonstrate safe practices

as they apply to both personal and environmental safety, emergency procedures and protocol in both a classroom and workplace setting, skills necessary for successful completion of CPR and First Aid certification and infection control practices.

HLST 1112 Medical Terminology

This course is designed to prepare the student to correctly use and apply medical terminology. Introduction to medical terminology covers terminology used in medical science, hospital science and paramedical specialties.

HLST 1211 Medical Ethics

This course is designed to provide the student with an overview of the law and ethics knowledge to give competent, compassionate care to patients that are within legal and ethical boundaries. Through legal case review and computer assisted activities, the student will develop a guide to assist in resolving the many legal and ethical questions reasonably expected in a career as a health care practitioner.

HLST 1226 Personal and Professional Development

This course provides a logical, in-depth review of all administrative competencies required of today's multi-skilled medical assistants. Topics include an introduction to medical assisting and health professions; professionalism; communication skills; the therapeutic approach; responsible medical practices; legal concepts integrated administrative procedures; managing facility finances, office and human resource management and entry into the profession.

HLST 1236 Introduction to Dental Assisting

HLST 1246 Dental Office Procedures & Instruments

HLST 1256 Dental Assistant Administration & Clinical Procedures

HLST 1311 CPR/First Aid/AED

This course is designed to teach the skills for CPR for victims of all ages, use of automated external defibrillator and relief of foreign-body airway obstruction. It is intended for participants who provide health care to patients in a wide variety of settings. Proficiency in the skills of this course is a prerequisite for AHA advanced courses in resuscitation, including advanced cardiovascular life support, pediatric advanced life support and instructor courses.

HLST 1410 Clinical Applications I (1-4 Hours)

A cooperative agreement between industry and education which allows students to utilize and refine skills previously learned in the education process. This course incorporates clinical experiences, which will increase the learners understanding of the health care profession. Experience will take place in a clinical setting with demonstration, observations and data collection. Attention will be given to wellness promotion to individuals throughout the life span. This course is designed to be taken concurrently with HLST 1510, HLST 1610 or HLST 1710.

HLST 1420 Clinical Applications II (1-4 hours)

This course incorporates Clinical Application with increasing knowledge in the clinical setting and delivery of care with an increased scope of therapy specific to the designated career pathway. This course is designed to be taken concurrently with HLST 1620 or HLST 1720.

HLST 1430 Clinical Applications III (1-4 hours)

This course incorporates Clinical Application with the addition of clinical rotations, designed to start orienting students to the healthcare setting. Emphasis will be placed on the student's ability to aid in the care and management of patients throughout the life span. This course is designed to be taken concurrently with HLST 1630.

HLST 1510 Direct Care (1-5 Hours)

The Direct Care pathway provides the theory and clinical skills necessary for individuals who wish to work with patients of all ages, in varying degrees of health on a personal, on a one-to-one basis in a variety of clinical setting.

HLST 1520 Direct Care II (1-5 Hours)

This course incorporates clinical applications with increasing knowledge in the clinical setting and delivery of care with an increased scope of therapy specific to the designated career pathway. The Direct Care pathway provides the theory and clinical skills necessary for individuals who wish to work with patients of all ages, in varying degrees of health on a personal, on a one-to-one basis in a variety of clinical setting.

HLST 1610 Therapeutic Care I (1-6 hours)

This course focuses on the foundations of therapeutic care as well as the general goal of wellness promotion for the general population. Students will learn and explore the general therapeutic care environment.

HLST 1620 Therapeutic Care II (1-6 hours)

This course incorporates Therapeutic Care with a focus on case studies, cognitive reasoning and patient application. Emphasis will be placed on the development of clinical judgment and techniques. Students will learn the effects of pathology and conditions that influence the therapeutic care professional.

HLST 1630 Therapeutic Care III (1-6 hours)

This course incorporates Therapeutic Care with a focus on the introduction of alternative practices in the area of therapeutic care. Students will learn nature of additional treatment options and effective patient education.

HLST 1710 Medical Assisting I (1-6 hours)

This course will introduce the student into Medical Assisting as a Health Career. The course offers the student an opportunity to become familiar with the various health care opportunities available as a Medical Assistant. Students will learn techniques for displaying professionalism, communicating with others, applying legal concepts to practice and medical terminology.

HLST 1720 Medical Assisting II (1-6 hours)

This course is a continuation of Medical Assisting I. Students will learn to utilize and refine skills previously learned in the education process. All work is performed in accordance with industry standards and guidelines and will be supervised by industry and school representatives. The student must meet competency guidelines and receive instructor approval prior to enrolling in this class.

History

HIST 1113 Ancient World History

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.

HIST 1223 Modern World History

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.

HIST 1483 American History to 1865

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

HIST 1493 American History Since 1865

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 Civil War to the present.

HIST 1713 History of Eastern Civilization

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

HIST 2113 History of Latin American Civilization

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

HIST 2323 Oklahoma History

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

HIST 2421 Conspiracy Thought in American Politics (H*)

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

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

HIST 2431 World Environmental History

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

HIST 2441 King Arthur: Myth versus Reality (H)

HIST 2450 Supervised Study in History

Independent study.

Health and Physical Education- Activity

HPEA 1121 Body Mechanics

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

HPEA 1221 Weight Training

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

HPEA 1231 Advanced Strength Training & Conditioning

This course will cover the essential principles of strength training and conditioning. It will also include instruction,

demonstration and practical experience with free weights and various weight machines. Instructor permission only.

HPEA 1251 Team Sports I

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

HPEA 1281 Team Sports II

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

HPEA 1361 Individual Sports I

Fundamental skills, game strategy and rules of racquetball.

HPEA 1371 Individual Sports II

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

HPEA 1401 Beginning Swimming

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

HPEA 1411 Intermediate Swimming

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

HPEA 1421 Life Guard Training

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

HPEA 1431 Water Safety Instruction

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

HPEA 1441 Swimming Fitness & Water Exercise

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

HPEA 1511 Cheerleading

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

HPEA 1521 Outdoor Recreation

HPEA 1531 Introduction to Self Defense

HPEA 1541 Karate

HPEA 1551 Physical Fitness

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

HPEA 1561 Yoga

HPEA 2021 Beginning Golf

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

HPEA 2031 Beginning Bowling

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

HPEA 2220 Lifetime Sports

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

HPEA 2221 Intermediate Golf

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

HPEA 2281 Beginning Tennis

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

HPEA 2381 Cardio Circuit Fitness

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

HPEA 2382 Scuba

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

HPEA 2451 Western Swing Dance

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

HPEA 2461 Square Dancing

Health and Physical Education Theory

HPET 1113 Nutrition

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

HPET 1132 Sports Officiating

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

HPET 1142 Sport Officiating II

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

HPET 1223 Health Education and Wellness

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

HPET 1950 Physical Education Field Experience

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

HPET 1952 Introduction to HPE&R

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

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.

HPET 2212 First Aid

This course provides knowledge and practical experience in the emergency care of injuries and sudden illness, including rescue breathing and cardiopulmonary resuscitation. This course meets requirements for the first aid certificate of the American Red Cross.

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.

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.

HPET 2633 Care & Prevention of Athletic Injuries

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

Health and Physical Education- Varsity Sports

HPEV 2211 Women's Varsity Basketball

Credit for a full semester participation in varsity basketball.

HPEV 2231 Women's Varsity Volleyball

Credit for a full semester participation in varsity volleyball.

HPEV 2241 Men's Varsity Basketball

Credit for a full semester participation in varsity basketball.

HPEV 2251 Men's Varsity Baseball

Credit for a full semester participation in varsity baseball.

HPEV 2261 Women's Varsity Softball

Credit for a full semester participation in varsity softball.

HPEV 2271 Women's Varsity Soccer

Credit for a full semester participation in varsity soccer.

HPEV 2291 Men's Varsity Soccer

Credit for a full semester participation in varsity soccer.

Humanities

HUMN 1133 World Religions

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

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

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

HUMN 2113 Humanities-Ancient Arts and Culture

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

HUMN 2123 Development of Science through History

This course deals with the development of science through history. This includes a study of the connectional development of one invention or theory upon another invention or theory and their interrelationship to historical, social and political developments of the appertaining ages. Prerequisite: ENGL 1113 English Composition I or equivalent. (Meets requirement for humanities elective.)

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 2401 Celts: Europe's Oldest Culture (H*)

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

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)

Information Technology

ITEC 1113 PC Technician I

At the completion of this course, the student will be qualified to take the A+ Core industry certification exam for PC Technicians offered by the CompTia organization. The Computing Technology Industry Association (CompTIA) sponsors A+ Certification. Major hardware and software vendors, distributors, resellers, and the Association for Services Management International all back this vendor-and product-neutral exam. A+ Certification is made up of two exams: the A+ Certification Core Module and an A+ Certification Operating System Specialty exam. Attaining A+ Certification indicates that an individual has the knowledge base, skills, and customer-service knowledge to be a successful computer service technician. This course focuses on vendor neutral hardware and software technologies. PC Technician I will focus on the Core section of the A+ exam requirements.

ITEC 1123 PC Technician II-Operating Systems

At the completion of this course, the student will be qualified to take the A+ Core industry certification exam for PC Technicians offered by the CompTia organization. The Computing Technology Industry Association (CompTIA) sponsors A+ Certification. Major hardware and software vendors, distributors, resellers, and the Association for Services Management International all back this vendor-and product-neutral exam. A+ Certification is made up of two exams: the A+ Certification Core Module and an A+ Certification Operating System Specialty exam. Attaining A+ Certification indicates that an individual has the knowledge base, skills, and customer-service knowledge to be a successful computer service technician. This course focuses on vendor neutral hardware and software technologies. PC Technician II will focus on the Operating Systems section of the A+ exam requirements.

ITEC 1133 Layout & Design Fundamentals

ITEC 1136 Network Administration

This course will teach students the knowledge and necessary skills to perform post-installation and day-to-day Windows NT administration tasks in single-domain and multiple domain networks.

ITEC 1143 Digital Photography

ITEC 1146 Network Operating Systems

This course will prepare individuals to properly install, configure, manage, and trouble-shoot networking operating systems. Advanced topics, such as network monitoring and security will also be covered.

ITEC 1213 Introduction to Multimedia

This course covers topics such as bitmap versus vector graphics, image file formats, computer color basics, image optimization, graphics coding and tags, digital imaging, backgrounds, buttons, image maps, rollover effects, graphic tools and applications, animation and copyright infringement.

ITEC 1223 Network Security

This course is designed to prepare students to an introduction to security and the overall security processes. Students will acquire competencies and an understanding in: how to select appropriate security hardware, software, policies and configurations based on an organization's assessment of its security vulnerabilities in order to provide protection against known security threats. Perform advanced installation, configuration, monitoring, troubleshooting, maintenance and recovery on IOS and firewalls. Configure intrusion detection features on routers and firewalls, install and configure site-to-site VPNs between devices and remote access VPNs devices and clients to ensure privacy and confidentiality.

ITEC 1233 Internet Security

This course provides students with the knowledge and skills to begin supporting network security within an organization. Students who complete this course will be able to identify security threats and vulnerabilities and help respond to and recover from security incidents.

ITEC 1236 Networking Essentials

ITEC 1246 Network/Client Operating Systems

ITEC 1253 Voice, Video and Data Integration

Upon completion of this course, students will acquire competencies and an understanding of the cabling industry and marketplace as well as the US and International standards and worldwide standards organizations; basic networking concepts and topologies, OSI model and the main functions of each model layer; signal transmission, basics of electricity and optical transmission theory, basic wireless system theory and the cause and effects of signal degradation; schematics of copper cabling in the form of twisted-pair and shielded twisted-pair, as well as the respective standards and coaxial cable schematics; fiber optics using cabling, different modes of fiber optic and implications of dispersion and attenuation; essential lab safety code of conduct and cabling installation as well as rough-in, trim-out and finish phases.

ITEC 1313 Web Design I

An introduction to web design concepts and Internet technology, this course prepares students to develop web content using HTML, CSS, JavaScript and web authoring tools.

ITEC 1323 Web Graphics I

Learn to create, import, and export web graphics and understand graphic file types.

ITEC 1346 HTML and Internet Fundamentals

This course prepares students to develop for and apply the Internet in business settings using HTML 4.0, FTP, CSS, JavaScript, and XML. Students are prepared to advise business managers on the most effective use of the Internet and to troubleshoot the use of the Internet in day to day business affairs. Students gain experience planning and building customer-facing e-services and secure intranets on the Apache web server.

ITEC 1356 Interface Design, Site Architecture & Layout

This course prepares students to chunk and organize information into logical hierarchies, develop effective user interfaces, and control visual hierarchy. Each student is prepared to work with CSS and XSL for wired Internet presentations as well as WML for wireless media design. Special attention is paid to the psychology of user interaction with web based media and graphics design principles are coupled with industry research to produce a solid strategic approach to interface design for all delivery platforms.

ITEC 1403 Multimedia Authoring I

The prerequisite for this course is ITEC 2573. The student will build on previous skills and software editing to produce a digital media production. The student will demonstrate a variety of multimedia technology to create the project assigned.

ITEC 1413 Introduction to Object Oriented Programming

Java is becoming the programming language of choice for Internet applications. It is gaining that status because of its robust nature, the object-orientation of the language, the depth of its predefined classes, and its "write once, run anywhere" deployment model. These elements are key to providing a rich development environment that enables effective program development and deployment techniques including: code reusability, data encapsulation, dynamically downloadable program units, and architecturally neutral and platform-independent programs. This course teaches participants how to develop Java applications and applets. The course focuses on teaching the Java language, plus practical object-oriented principles. Students will be able to practice and apply skills needed to develop object-oriented systems, employing a use case-based approach. Introduce object-oriented principles such as classes, objects, and relationships. Use unified modeling language for object-oriented analysis and design. Write stand-alone applications with the Java programming language. Develop and deploy Java Applets. Construct a professional resume or application to College.

ITEC 1416 Introduction to Object Oriented Programming

ITEC 1423 Multimedia Authoring II

The prerequisite for this course is ITEC 1413. This course incorporates previous skills learned to produce a creative digital media production effectively using innovative technology in developing a theme.

ITEC 1433 Multimedia Authoring III

This course is the final production which incorporates previous learned skills into a web page and interactive CD designed to showcase the student's portfolio and resume for use in job interviews.

ITEC 1443 Web Authoring I

This course examines effective web sites and teaches students to create a web site with authoring software. The student will learn to maintain and improve on the site.

ITEC 1513 Java Programming

Java Programming Fundamentals is a two course programming curriculum designed to teach the basics of object-oriented programming and the Java programming language. As with other Academy courses, the "soft skill" focused on in this course will be a collection of work from the previous courses that are relevant for each students' interest in possible career paths. Given the unique location of each Academy site, special interest should be taken in any local area business they may use Oracle or need some of the programming skills that Academy students have to offer. Students will be able to write stand-alone applications with the Java programming language. Develop and deploy Java Applets. Create portfolio of student work for use in college admissions and/or job placement. After completion of this course you will be prepared to sit for the Advanced Placement Computer Science exam.

ITEC 1523 Digital Imaging I

This course covers fundamentals of pre-paring images for multimedia and print. Students will work with various images by scanning, capturing a video image, or importing artwork or previously digitized images in industry standard software application.

ITEC 1533 Digital Video I

This course focuses on the capture of digital video to create a visual communication tool. Audio, text, video, graphics, and animation with the use of transitions will be utilized.

ITEC 1543 Graphic Design I

This course examines basic design principles, story boarding, drawing and cartooning.

ITEC 1616 Database Essentials

ITEC 1626 Relational Database Design

ITEC 1633 Database Projects

ITEC 2106 Information Technology Essentials

This course is designed to give students an introduction to the areas within Information Technology while learning the core skills needed to enter IT fields of study. Information Technology Essentials is a beginning level core course for students who want to obtain basic literacy to understand key computer concepts, applications and the Internet. This course also provides students with a foundation for achieving application-specific computer certifications.

ITEC 2116 Networking Fundamentals

This is the first of four classes designed to provide students with classroom and lab experience in current and emerging networking technology that will empower them to enter employment or further education and training in the computer-networking field. Course content includes safety, networking, networking terminology and protocols, network standards, LANS, WANS, OSI model, cabling, routers, router programming, Ethernet, IP addressing and networking standards. Emphasis is given to the use of decision making and problem solving techniques in applying science, mathematics, communication and social studies concepts to solve networking issues. In addition, instruction and training are provided in the proper care, maintenance and use of networking software, tools and equipment and all local, state and federal safety, building and environmental codes and regulations.

ITEC 2126 Router Theory and Configuration

This is the second of four classes designed to provide students with classroom and lab experience in current and emerging networking technology that will empower them to enter employment or further education and training in the computer-networking field. Course content includes safety, networking, networking terminology and protocols, network standards, LANS, WANS, OSI model, cabling, routers, router programming, Ethernet, IP addressing, and networking standards. Emphasis is given to the use of decision-making and problem-solving techniques in applying science, mathematics, communication, and social studies concepts to solve networking issues. In addition, instruction and training are provided in the proper care, maintenance, and use of networking software, tools, and equipment and all local, state, and federal safety, building and environmental codes and regulations.

ITEC 2136 Advanced Routing & Switching Design

This is the third of four classes designed to provide students with classroom and lab experience in current and emerging networking technology that will empower them to enter employment or further education and training in the computer-networking field. Course content includes safety, networking, networking terminology and protocols, network standards, LANS, WANS, OSI model, cabling, routers, router programming, Ethernet, IP addressing, and networking standards. Emphasis is given to the use of decision-making and problem-solving techniques in applying science, mathematics, communication, and social studies concepts to solve networking issues. In addition, instruction and training are provided in the proper care, maintenance, and use of networking software, tools, and equipment and all local, state,

and federal safety, building and environmental codes and regulations.

ITEC 2146 Advanced Network Design and Management

This is the fourth of four classes designed to provide students with classroom and lab experience in current and emerging networking technology that will empower them to enter employment or further education and training in the computer-networking field. Course content includes safety, networking, networking terminology and protocols, network standards, LANS, WANS, OSI model, cabling, routers, router programming, Ethernet, IP addressing, and networking standards. Emphasis is given to the use of decision-making and problem-solving techniques in applying science, mathematics, communication, and social studies concepts to solve networking issues. In addition, instruction and training are provided in the proper care, maintenance, and use of networking software, tools, and equipment and all local, state, and federal safety, building and environmental codes and regulations.

ITEC 2156 Server Implementation & Support

The course covers the skills for managing accounts and resources. These tasks include managing user, computer, and group accounts; managing access to network resources; managing printers; managing an organizational unit in a network based on Active Directory® directory service; and implementing Group Policy to manage users and computers.

ITEC 2166 Network Management

This course covers the skills for network management, such as; implementing, managing, and maintaining Dynamic Host Configuration Protocol (DHCP), Domain Name System (DNS), and Windows Internet Name Service (WINS); securing Internet Protocol (IP) traffic with Internet Protocol security (IPSec) and certificates; implementing a network access infrastructure by configuring the connections for remote access clients; and managing and monitoring network access.

ITEC 2176 Principles of Information Assurance

This course introduces the student to basic security principles. This will give the student an understanding of the current threats and vulnerabilities of the cyber landscape, plus other topics relating to the information assurance field.

Prerequisites: IT Essentials Cisco CCNA courses 1-4 or equivalent industry certifications and work experience.

ITEC 2186 Network Security

In this course, the student will learn about network communications from a security standpoint, hardware and software security solutions and perform laboratory assignments in securing networks and Operating Systems. Prerequisite: Principles of Assurance.

ITEC 2196 Enterprise Security Management

This course will enable students to understand the principles of risk management, security architectures, incident handling, disaster recovery and secure systems administration. Prerequisite: Principles of Assurance.

ITEC 2213 Employability Skills

A daily analysis of industry trends and corporate needs prepares each student to seek employment intelligently. The preparation of a design portfolio and presentation equips each graduate from the program to present themselves and their talents in a thorough and professional manner. The opportunity to participate in Business Professionals of America enhances their involvement with other business professionals and provides each student with an opportunity to refine their presentation skills.

ITEC 2216 Networking Projects

This course will allow students to obtain challenging project oriented tasks utilizing the skills learned in their course of study.

ITEC 2226 Server-Side Scripting

Server-side scripting allows web pages to access information stored in databases and render web content using that information. Students in this course will learn how to use server-side scripting languages and databases to create dynamic interactive web pages.

ITEC 2233 Data Modeling

ITEC 2236 Advanced Routing

Upon completion of this class, students will be able to perform advanced routing tasks, including: selecting and configuring scalable IP addresses, implementing technologies to redistribute and support multiple, advanced, IP routing protocols such as OSPF, EIGRP and BGP; configuring access lists; designing and testing edge router connectivity into a BGP network.

ITEC 2240 Special Projects

This course will allow students to obtain challenging project oriented tasks utilizing the skills learned in their course of study.

ITEC 2246 Remote Access

Upon completion of this class, students will be able to perform advanced remote access tasks, including: configuring Asynchronous connections; Point-to-Point Protocol architecture, protocol, callback and compression; ISDN architecture, protocol layers, BRI and DDR; configuring X.25, Frame Relay and AAA.

ITEC 2256 Multilayer Switching

ITEC 2266 Secure Electronic Commerce

In this course, the student will learn about the history, present and future of electronic commerce in the world. The student will also learn about the threats, vulnerabilities and policies when dealing with commerce in the electronic age.

Prerequisites: Principles of Information Assurance, Network Security, Enterprise Security Management.

ITEC 2276 Digital Forensics

The field of forensics is much like that of pathological forensics. In this section of the course, the student will learn procedures on tracking, analyzing and patching security holes after an incident has occurred. This will include seizure of equipment, analysis of confiscated materials and follow up procedures relating to the incident. Prerequisites: Principles of Information Assurance, Network Security, Enterprise Security Management, Secure Electronic Commerce.

ITEC 2303 Database Management

Students will be introduced to the concepts of relational database design and development using a relational database management system.

ITEC 2316 Web Design II

This course prepares students to create HTML and DHTML sites using the WYSIWYG authoring capabilities of Macromedia Dreamweaver. WAP development and JavaScript capabilities are also implemented with this tool. A comprehensive system for site planning, documentation, and content management is formally presented to each student. On-going security and site performance issues are presented and each student is required to demonstrate their ability to plan and implement several web sites using this system.

ITEC 2326 Web Graphics II

This course prepares students to create engaging motion and static graphics for delivery on desktops, palm PCs, and WAP phones. Each student learns to digitally manipulate photography and illustrations, compress them in appropriate formats (WBMP, JPEG, GIF89a, GIF, PNG), and use them in electronic layouts. Students receive training in the preparation of interfaces for multiple delivery platforms (WebTV/ITV, Mac, PC, WAP Phone, Palm/Pocket PC) and leave the class ready to design information delivery interfaces that perform well across all media delivery channels and formats.

ITEC 2336 Web Animation

This course prepares students to produce engaging, bandwidth appropriate animations for use on the Internet, CD-ROM, and corporate intranet. The planning and production of motion graphics is covered in detail beginning with ideation/thumb nailing and proceeding through storyboarding to prototype development and final release. Special attention is paid to the limitations of a low bandwidth environment. Action Scripting and data driven animations are explained and students are required to build several animations for use in different environments (web, CD-ROM, Kiosk, etc.).

ITEC 2346 Imaging, Virtual Reality & Digital Video

This course prepares students to shoot and prepare images, video, and virtual reality for use on the Internet or CD-ROM/Kiosk. Each student is taught the fundamentals of color, resolution, and presentation in digital imaging. Each student receives instruction on the production of digital video in multiple formats, including capture, encoding, and streaming. Students are required to produce a web-based project that incorporates digital video or audio in both HTTP and intelligent streaming formats using Windows Media or Real technology. Each student is taught to use a scanner effectively for both high and low-resolution work.

ITEC 2356 Web Projects/Electives

Each student will produce real web media for real businesses as a part of our unique live work project. Businesses in the surrounding communities and beyond have the opportunity to partner with our students in the production of web-based media and services. These projects form the bulk of each student's portfolio and gives them invaluable reality based experience that mirrors what is found in professional design firms.

ITEC 2366 E-Commerce Concepts & Implementation

This course covers the use of concepts such as the following: legal issues; copyright, trademarks and licensing; security threats and issues; electronic payment systems; purchasing and electronic data exchange; international business issues; public policy issues; ethics issues; economics issues.

ITEC 2373 Server Networking & Security

This course will acquaint students with basic networking concepts and give them experience with server installation, configuration, security, management and monitoring.

ITEC 2376 Structured Query Language

ITEC 2386 Internet Programming

Students will be introduced to programming technologies that will allow them to produce complex, interactive web pages.

ITEC 2396 Web Applications Development

Students will learn to use high-level programming tools and advanced programming techniques to build a database-driven website.

ITEC 2426 Web Application Development

The advanced programming techniques needed to build complex e-commerce systems will be covered in this course. Students will learn about online credit card transactions, shopping carts, order-tracking, subscription-based sites, customizing the shopping experience, and promoting commercial web sites.

ITEC 2433 Application Design & Development

Gives the student an opportunity to create a project that utilizes a java program they have written. The student will prepare a project of their choice and present that project to the class.

ITEC 2440 Special Projects

This course will allow students to obtain challenging project oriented tasks utilizing the skills learned in their course of study.

ITEC 2443 Multimedia Portfolio

Students are required to create an on-line and web-based portfolio displaying graphic and multimedia skills. Students will record the portfolio onto storage media such as a recordable CD.

ITEC 2523 Digital Imaging II

This course offers a more advanced study of graphics and the use of computer applications in creating web and digital multimedia communications.

ITEC 2533 Digital Video II

This course emphasizes the use of applications for creating sophisticated motion graphics and visual effects of video, film, multimedia and the web.

ITEC 2543 Graphics Design II

This course covers fundamentals of industry-standard illustration for print, multimedia, and online graphics.

ITEC 2553 Multimedia Project

Students will be required to create an electronic portfolio on the Web as well as an executable CD and printed media demonstrating utilization of various software applications and knowledge of digital video and sound.

ITEC 2556 Network Troubleshooting

Upon completion of this class, students will be able to perform network-troubleshooting tasks in the areas such as: OSI layers 1,2, and 3; TCP/IP, LAN switching, VLANs, Frame Relay, ISDN, Appletalk, Novell, EIGRP, OSPF and BGP.

ITEC 2563 Digital Imaging III

This course contains the advanced study of graphics preparation such as creating special effects, color management, and optimizing images.

ITEC 2573 Modeling & Animation

This course provides instruction in 3D graphics modeling and animation. Students will utilize industry recognized 3D graphics software in Web site creation projects.

ITEC 2583 Industry Issues

This course identifies current trends and topics in multimedia fields. Students will cross examine commercial TV, newspaper, magazine, and the Internet as well as relevant conferences and showcases. Students will conduct a job search in connection to findings.

ITEC 2783 Wireless Technologies

Upon completion of this class, students will design a logical wireless LAN architecture for mobile wireless users in compliance with IEEE 802.11 standards; demonstrate knowledge of the theory regarding the most common factors that influence WLANs, including EM spectrum, radio wave propagation, modulation techniques, and frequency and channel usage in wireless technologies. Install WLANs, with appropriate antennas that meet mobility and throughput specifications, including the site survey and documentation. Perform hardware setup and software configuration of wireless products including using WEP, and 802.1x protocols. Upgrade wireless products and troubleshoot performance issues using event logging, command-line utilities, and diagnostic tools.

Industrial Technology Mechanical Technology

ITMT 1111 Introduction to Print Reading

This course will introduce students to the various aspects of print reading. Students will become familiar with orthographic projections, section views, special views, surface texture, and violations of true projections. In addition, students will study positional dimensioning and geometric tolerances.

ITMT 1213 Introduction to Welding

This course will introduce students to arc welding and oxyacetylene cutting. Students will learn to operate safely and efficiently in the welding shop. Students will learn cutting techniques using oxyacetylene equipment. Students will also learn to weld in several positions using a variety of arc welding equipment.

ITMT 1311 Introduction to Metallurgy

This course will introduce the student to metal classification, identification, and the various properties of metals. Specific attention will be directed toward the study of iron and steel including cast iron, low/high speed and carbon steels, steel alloy, and stainless steel. The students will also become familiar with the nonferrous metals of aluminum, magnesium, copper, brass, bronze, and other precious metals. Hardening, tempering, annealing, and normalizing will be studied within the heat treatment dimension.

ITMT 1414 Introduction to Mechanical Equipment

This course is designed to increase individual knowledge in areas of measuring devices and systems including standard and metric systems, scales and rules, vernier scales, micrometers and gauges. Students will be introduced to specific knowledge and hands-on skills pertaining to predictive maintenance, alignment, and precision measurement. Students

in the course will learn to select, inspect, maintain, and repair components of a mechanical system. Topics will include flexible drives, couplings, bearings, gears, lubrication techniques, and troubleshooting a mechanical system. Safety will be emphasized throughout the course.

ITMT 1512 Introduction to Machining

This course will introduce the student to the art and science of removing metal. The students will learn to turn and mill to specifications in a safe and timely manner. The students will learn to read a detailed shop drawing, calculate proper spindle speeds and proper feed rates. The students will also learn proper order of production steps and layout procedures. Suggested prerequisites: ITMT 1111 & ITMT 1414)

ITMT 2123 Introduction to Hydraulics

This course will introduce the student to the principles of hydraulic power systems, hydraulic circuits and speed controls, pressure control circuits, and cylinder applications. Students will learn about hydraulic DCV's and electro-fluid powers systems, as well as relief valve operations and electronic sensors.

ITMT 2124 Mechanical Troubleshooting Technology

ITMT 2222 Introduction to Electricity & Electronics

This course will introduce students to specific knowledge and hands-on skills relative to electricity and electronics. Students will become familiar with electrical measurements to include magnetism, relays, and meters, voltage, current, and resistance. Within the area of electronics, students will be introduced to alternating current, odes and diode circuits, integrated circuits, digital electronics, AC and DC motors and motor controls, and programmable logic controller fundamentals.

ITMT 2324 Mechanical Operations

Suggested Prerequisite: ITMT 1111.

ITMT 2460 Internship in Mechanical Technology

Journalism

JOUR 1013 Introduction to Mass Communications

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

JOUR 1111 Introduction to Digital Photography

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

JOUR 1113 Writing for Mass Media

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

JOUR 1123 News Reporting & Writing

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

JOUR 1131 Beginning Black & White Darkroom

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

JOUR 1133 Beginning Photography

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

JOUR 1143 Graphics and Video Production

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

JOUR 1223 Design Technology

This is a basic study and examination of the integration of text, graphics, and other media for digital imaging, page layout,

and web design. Computer laboratory assignments will direct the student in image capture, image modification and manipulation, page layout, web application, and output to other computer applications, printers, and storage devices. Prerequisite: CS 1113 Computer Concepts, concurrent enrollment, or permission of the instructor.

JOUR 2013 Principles of Advertising

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

JOUR 2023 Photojournalism

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

JOUR 2043 Light and Lighting

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

JOUR 2101 Independent Photographic Darkroom

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

JOUR 2113 Digital Imaging

This course covers digital imaging and editing of images to prepare images for photographic applications as well as applications in graphics, web, multimedia, and page layout. Assignments will direct the student in image capture, image modification and manipulation, and output to computer applications, printers, and storage devices. Prerequisites: JOUR 1223 Design Technology; JOUR 1133 Beginning Photography is recommended but not required.

JOUR 2133 Intermediate Photography

This is a continuation of JOUR 1133 Basic Photography. Students will advance their skills in black and white and begin developing photographs in color. The class will place an emphasis on composition. Students will identify specific genres of photography in which they are interested, evaluate occupational and advanced skills and begin building a portfolio. Prerequisite: Beginning Photography (JOUR 1133). A lab is required with this course.

JOUR 2143 Advanced Photography

Students will study advanced photographic theory, composition and presentation. Various topics, such as, the zone system, color theory and visual psychology will be discussed. Students will continue to work on their portfolio. Prerequisite: Intermediate Photography (JOUR 2133) A lab is required with this course.

JOUR 2213 Photographic Studio Practice

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

JOUR 2223 Broadcast Journalism

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

JOUR 2240 Publications Practicum

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

JOUR 2283 Industry Issues

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

JOUR 2313 Advanced Digital Imaging

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

JOUR 2401 Action Photography Seminar

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

JOUR 2411 Flash Photography

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

painting with flash are demonstrated. Offered spring semester, even years.

JOUR 2421 Available Light Photography

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

JOUR 2431 Photographic Creativity Seminar

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

JOUR 2441 Photography Trip Seminar

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

JOUR 2450 Supervised Study in Journalism

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

JOUR 2451 Wedding Photography

This course will study the basic approaches to wedding photography from the traditional approach to a photojournalism style. The unique photographic problems of wedding photography and the equipment needed will be discussed. Students will practice posing and photographing the bride and groom, groups and candid photos. Prerequisite: JOUR 1133 Beginning Photography is recommended. Offered fall semester, even years.

JOUR 2460 Internship in Journalism

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

JOUR 2461 Environmental Portraiture

The focus of this seminar is on portraiture outdoors and on location as opposed to a studio environment. Students will study the basics of portrait lighting, posing and exposure technique as each relates to environmental portraits. Equipment needs of advanced amateur and professional level work will be discussed. *Traditionally offered only in the fall semesters, even years.*

JOUR 2463 Internship in Photography

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

JOUR 2493 Landscape and Fine Art Photography

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

Foreign Languages

LANG 1114 or 1125 Elementary Spanish I

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

LANG 1115 Elementary French I

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

LANG 1213 American Sign Language

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

LANG 1225 Elementary French II

LANG 1224 or 1235 Elementary Spanish II

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

LANG 2113 Intermediate French I

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

LANG 2123 Intermediate Spanish I

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

LANG 2152 Spanish Pronunciation

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

sufficient demand.

LANG 2183 Spanish Composition and Conversation/Reading

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

LANG 2193 Spanish Composition/Grammar

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

LANG 2223 Intermediate French II

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

LANG 2233 Intermediate Spanish II

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

Leadership

LEAD 1101 Freshman Orientation (see also Orientation)

A course designed to help the student bridge the transition to the college environment.

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. Concurrent enrollment in University of Central Oklahoma's Lessons in Leadership course (LEAD1230).

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.

LEAD 2321 Professional Development

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

Literature

LIT 2113 Survey of World Literature Before 1650

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

LIT 2223 Survey of World Literature Since 1650

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

LIT 2413 Introduction to Literature

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

LIT 2543 Survey of British Literature to 1800

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

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.)

LIT 2773 Survey of American Literature to 1865

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

LIT 2883 Survey of American Literature from 1865 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.)

Mathematics

MATH 0003 Pre-Algebra

Designed as a three-hour course to place an emphasis on arithmetic skills needed for success in algebra (addition, subtraction, multiplication, division). Rules for operations on signed numbers, concepts of integers, fractions, decimals

and percents will be studied. Simple equation solving and formula manipulations are also included. This course meets the deficiency requirements for students who do not meet entrance requirements by either high school course work or test scores.

MATH 0023 Concepts of Algebra

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

MATH 0123 Intermediate Algebra

Designed to provide in-depth applications of algebra necessary to complete college-level mathematics. Intermediate Algebra includes topics such as factoring, algebraic expressions, simplifying radical expressions, 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 test scores. Prerequisite: MATH 0023 Concepts of Algebra.

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 1233 Logic/Problem Solving

This course studies the science of formal reasoning and explores the systematic approach to problem solving and logical thinking. Prerequisite: MATH 0023 Concepts of Algebra.

MATH 1483 Math Functions

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

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 or business oriented calculus course. The topics covered will include but not be limited to ratio and proportion, APR, simple statistical measures, probability, area, perimeter, volume, stocks and bonds. Application to natural sciences, business, economics and social sciences will be explored. This is a terminal mathematics course and will not be used as a pre-requisite to any other mathematics course, but will fulfill the general education math requirement. Pre-requisite: MATH 0023 Concepts of Algebra or appropriate score on COMPASS.

MATH 1513 College Algebra

Advanced topics in quadratics, systems of equations, permutations, combinations, theory of equations, theory of logarithms, and exponentials. Prerequisite: MATH 0123 Intermediate Algebra or appropriate score on COMPASS.

MATH 1613 Plane Trigonometry

Trigonometric functions, the solution of right and oblique triangles, graphing and identities; the application of trigonometry to physics, surveying, astronomy, and allied subjects, complex numbers, trigonometric equations and inverse trigonometric functions. Prerequisite: MATH 1513 College Algebra.

MATH 1715 College Algebra & Trigonometry

Advanced topics in quadratics, polynomial and rational functions, systems of equations, logarithmic and exponential functions, combinatorics, binomial theorem, sequences and series; trigonometric identities, functions, graphs of trig functions, solutions of trigonometric equations, applications with right triangles, laws of sines and cosines, vectors and applications polar coordinates and graphs. The content emphasis is pre-calculus. Prerequisite: MATH 0123 Intermediate Algebra or appropriate score on COMPASS.

MATH 2023 Elementary Statistics

Descriptive measures, probability, sampling distributions, estimation and hypotheses testing, chi-square, regression and correlation, analysis of variance. Appropriate for business, economics, natural science, health science, social science and education majors. Prerequisite: MATH 1513 College Algebra or MATH 1483 Math Functions.

MATH 2103 Elementary Calculus

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

MATH 2145 Calculus I

The first of a two semester sequence in integrated analytics and calculus. The course includes the following topics: Introductory Analytic Geometry, lines, slopes, circles, functions, limits, indeterminate forms, differentiation of algebraic, trigonometric and other transcendental functions, applications of differentiation, basic integration techniques and

applications, advanced integration techniques and improper integrals. Prerequisite: College Algebra and Trigonometry.

MATH 2155 Calculus II

The course includes the following topics: 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, multiple integrals, integration in vector fields, including line integrals, surface integrals and Green's Theorem. Prerequisite: MATH 2145 Calculus I or equivalent.

MATH 2233 Mathematical Concepts for Educators

This course is a study of the fundamental structures of mathematics for non-mathematics majors. Topics include: critical thinking, problem solving, sets and set theory, logic and pre-algebra skills. 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: MATH 1493 Math Applications or MATH 1513 College Algebra.

MATH 2243 Geometry Concepts for Educators

This course is a study of the fundamental structures of geometry for non-mathematics majors. Topics include: graphing, lines and their slopes, linear, quadratic, exponential, and log functions, perimeter, area, and volume, basic trig, basic probability and statistics. 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.

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: MATH 2155 Calculus II.

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 Appreciation of International Music

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.

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. (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.

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

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

MUSC 1721 Applied Piano Class II

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

MUSC 1731 Applied Piano Class III

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

MUSC 1741 Applied Piano Class IV

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

MUSC 1991 Music Theatre Seminar

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

MUSC 2040 Music Theatre Activity

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

MUSC 2131 Ear Training & Sight Singing III

A continuation of MUSC 1141 with the addition of rhythmic, melodic, and basic choral dictation.

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.

MUSC 2141 Ear Training & Sight Singing IV

A continuation of MUSC 2131 with the addition of advanced rhythmic, melodic, chordal identification and choral dictation.

MUSC 2143 Music Theory IV

The continuation of MUSC 2133 with the addition of twentieth-century techniques including polyharmony, atonality, and serialism.

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 adviser to enroll.

MUSC 2611 Wind Ensemble-Concert Band

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

MUSC 2621 String Ensemble

Traditional ensemble work with string instruments.

MUSC 2631 College Choir

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

MUSC 2641 Orchestra

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

MUSC 2650 Music Seminar

Topics of study within the applied contemporary field.

MUSC 2651 Music Computer Seminar

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

MUSC 2653 Contemporary Arranging

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

MUSC 2711 Wind Ensemble - Jazz Band

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

MUSC 2731 Vocal Ensemble- Roustabouts

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

MUSC 2753 History of Music

A study of music concerning the understanding of the musical styles, forms, schools, composers and instruments that developed in western civilizations from antiquity through the Twentieth Century. (Meets requirement for humanities elective.)

MUSC 2831 Madrigal/Chamber Singers

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

Nursing

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: special admission only. Offered fall semester only.

NURS 1123 Service Learning in Nursing Across the Life Span—Online Course

Service Learning in Nursing Across the Life Span is a webct internet course which introduces to nursing students 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 perspective of human persons, their physiological, psychological, spiritual, developmental and sociocultural modes. This course connects theory to service learning and explores concepts related to social justice, ethics and advocacy for individuals and populations. Course requirements are completed via the internet on WebCT. Prerequisites: Fundamentals of Nursing and Fundamentals of Nursing Practicum.

NURS 1124 Nursing Fundamentals Practicum

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

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 student in assuming the new

role of graduate nurse. The focus is discussion and analysis of the development of nursing as a profession: the history, controversies and issues that remain unanswered. Included are the effects of political concerns influencing the relationship of nursing and society and an understanding of nursing organizations and pharmacological principles. 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), the course includes content that will help the nursing student move into nursing as a career; e.g., learn about opportunities for employment and management of client care. Applying and interviewing for positions are also included. 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 the fall semester only.

NURS 2344 Maternal-Child Practicum

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

NURS 2415 Nursing of Adults II

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

NURS 2425 Nursing of Adults II Practicum

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

NURS 2450 Supervised Study in Nursing

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

Nutrition

NUTRI 2123 Introduction to Human Nutrition

This course is geared to understanding the basic principles of nutrition and applying this knowledge.

Office Administration

OFAD 1103 Beginning Keyboarding & Formatting

This course is for students with no previous instruction in typewriting. This is not open to students with credit in high school type-writing. Emphasis will be placed on correct techniques, speed and accuracy.

OFAD 1113 Business Calculations

This course aids in the development of the student's touch-entry on computer keypad or electronic calculator. Emphasis is designed to both improve students' mathematical skills and concepts and to increase their understanding of business transactions.

OFAD 1131 Insurance and Billing

This course is an introduction to medical insurance. It is a practical, focused approach to provide students with the

basics of coding and filing medical insurance claims. Students will be exposed to several different insurance types such as Blue Cross and Blue Shield, Medicaid, Medicare Champus/ Champva and others.

OFAD 1141 Medical Transcription

The student will know the purpose and information contained in the most common types of reports transcribed. The student will learn to select and use appropriate general and specialty reference materials. The student will transcribe authentic medical dictation requiring concentration and listening skills.

OFAD 1152 ICD9 Coding

Students learn how to use an ICD9 codebook as well as a CPT manual to record diagnosis and procedures for patient record keeping. Students learn to complete HFCA forms and are introduced to Medical Office software.

OFAD 1405 Medical Fundamentals I

The student will receive an overview of the medical assistant career. Three emphasis areas will be addressed: Fundamental Principles of Medical Assisting, Diagnostic Orders and Patient Care. Skills will include professionalism, history of the profession, human relations, OSHA guidelines, medical asepsis, vital signs, emergency procedures, law, ethics, communications and documentation.

OFAD 1415 Medical Fundamentals II

This course is a continuation of Clinical Fundamentals I with increasing knowledge in the clinical setting. Three emphasis areas will be addressed: Fundamental Principles of Medical Assisting, Diagnostic Orders and Patient Care. The student will demonstrate an understanding of such skills as maintaining the examination area, performing clinical lab tests, venipuncture, microphematocrit, twelve lead electrocardiograph (ECG), drug calculation and medication administration. An emphasis is placed on the patient's physical examination and treatment procedures that are performed in a medical office setting

OFAD 2112 Records Management

The focus of this course will be on the methods of filing: alphabetically, chronologically, numerically.

OFAD 2113 Desktop Publishing

This course is designed to expose students to practical examples of the computer as a useful desktop publishing tool and teach them how to create professional quality publications suitable for professional purposes as well as for personal use. Students will learn how to create and edit a publication, design a newsletter, prepare brochures and create business forms and tables. Students will also learn how to personalize and customize a publication with information sets and how to link a publication to an Excel worksheet.

OFAD 2213 Office Procedures

This course focuses on the office procedures used in modern electronic offices including telephone responsibilities, mailing procedures, word processing, professionalism and the use of mini-simulations to reinforce the concepts.

OFAD 2240 Internship

An agreement between industry and education which allows students to utilize and refine skills previously learned in the education process. All work is to be performed in accordance with industry standards and guidelines and will be supervised by industry and school representatives. The student must meet competency guidelines and receive instructor approval to participate in the internship courses.

OFAD 2243 Office Management

This course includes middle-management decision-making problems including productivity, employee selection, plant location and equipment selection and policy issues. Projects will be completed on computers. Lecture will focus on issues and aspects of business operation used in modern offices.

OFAD 2333 Beginning Microcomputer Word Processing

This course addresses word processing systems, procedures and equipment; proof-reading, formatting and editing.

OFAD 2343 Advanced Microcomputer Word Processing

This course addresses advanced concepts of word processing using microcomputers to perform advanced functions. Prerequisite: OFAD 2333 Beginning Microcomputer Word Processing.

Orientation

LEAD 1101 Freshman Orientation

A course designed to help the student bridge the transition to the college environment.

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 and his or her environment. 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 2nd requirement for humanities elective, in addition to a Block A course.

PHIL 2450 Supervised Study in Philosophy

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

Physical Science

PHSC 1114 General Physical Science

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

ESCI 1214 Earth Science

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

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

Physics

PHYS 1114 General Physics I

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

PHYS 1214 General Physics II

A continuation of PHYS 1114 General Physics I. Includes topics from electricity, magnetism, light, optics, and modern physics. Prerequisite: MATH 1513 College Algebra. Offered spring semester only. (Meets general education Physical Science requirement.)

PHYS 2014 Engineering Physics I

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

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. Prerequisite: math proficiency through MATH 0023 Concepts of Algebra. (Meets general education Physical Science requirement.)

PHYS 2114 Engineering Physics II

A continuation of PHYS 2014 Engineering Physics I. Includes topics from electricity, magnetism, light and optics. Prerequisite: PHYS 2014 Engineering Physics I or equivalent. (Meets general education Physical Science requirement.)

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.

POLI2113 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 make up 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.

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.

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.

PTEC 2014 Process Technology I- Equipment

This course teaches the basic principles of process automation and demonstrates their applications in modern industrial practice. The course, continuing with PTEC 2024 Industrial Instrumentation I, provides a deeper understanding of process dynamics. Course content: basic control concepts; function structure of feedback control; sensors and transmission systems; controllers; control valves; process dynamics, tuning control systems; cascade ration, dead time, feed forward multivariable and digital control.

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.

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; 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.

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.

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.

PTEC 2301 Industrial Observation

Process Technology students will spend time job shadowing professional process technicians at local refineries.

PTEC 2314 Oil & Gas Production I

PTEC 2443 Pipeline Operations & Controls

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.

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.

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.

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.

Radiography

RADT 1022 Radiation Protection

This course is designed to provide the student with the necessary knowledge to perform all radiographic examinations with minimal exposure to self and patients through discussion topics such as sources of radiation exposure, equipment design and shielding, radiation detection and measurement, occupational and patient exposure done in radiology, and radiography of the pregnant woman.

RADT 1053 Principles of Radiographic Imaging I

This course provides the necessary background for the student radiographer to select the proper exposure techniques and equipment necessary to perform high quality radiography with minimum radiation exposure to the patient and him/herself. Imaging I places emphasis on all photographic aspects of radiography to include radiographic film and intensifying screen characteristics, processing and darkroom design.

RADT 1055 Positioning and Radiographic Evaluation I

Course content includes principles involved in the proper positioning of patients for the purpose of obtaining diagnostic radiographs of the respiratory, skeletal, digestive and genitourinary systems. Related anatomy is reviewed and proper technical evaluation of the completed radiographic examination is learned. Methods of contrast administration, possible complications and appropriate interventions are reviewed.

RADT 1062 Introduction to Radiological Technology

The student is introduced to allied health education, opportunities for career growth and development, medical ethics

and professionalism, medical legal considerations, basic imaging equipment, professional growth and fundamental safety and radiation protection practices.

RADT 1073 Methods of Patient Care

Basic care techniques used to provide for the comfort and safety of both patient and staff during the radiological examination are presented. The students learn patient assessment skills and emergency interventions.

RADT 1111 Clinical Applications I

The student is introduced to basic radiographic positioning and radiation protection as learned in the introductory radiological technology course. Participation in every day departmental functions such as scheduling, patient transport, and film filing emphasizes the importance and legality of maintaining proper film records and confidentiality of patient information. Introductory level thoracic, upper extremity, gastrointestinal and urographic procedures are performed.

RADT 1112 Clinical Applications III

A closely supervised clinical correlation to the first radiographic positioning and evaluation course. The student will apply basic techniques and patient assessment skills while learning to perform radiographic procedures utilizing contrast media. Introductory level skeletal, lower extremity, thoracic, gastrointestinal, and urographic procedures are performed.

RADT 1122 Clinical Training II

With fundamental positioning and basic patient care skills, the student will perform mobile radiography in a closely supervised clinical setting. Advanced contrast examinations are also performed with limited supervision.

RADT 1134 Principles of Radiographic Imaging II

A continuum of Radiographic Imaging I. Emphasis is on the geometric, material and radiation factors that affect radiographic exposure and quality. All factors affecting radiographic density, contrast, distortion and resolution are studied in detail.

RADT 1155 Positioning and Radiographic Evaluation II

Course format is the same as Positioning and Radiographic Evaluation I except the major emphasis is placed on Neuro, intra-oral and pediatric radiographic positioning. Special circumstances and complications encountered in radiography of the severely traumatized patient are addressed.

RADT 1222 Radiation Biology

The production and properties of ionizing radiations, the basic mechanisms by which radiation damage to tissue occur and the types of damage and their effect on lethality are learned.

RADT 1443 Medical Terminology

This course is to develop the student radiographer's ability to follow directions on radiographic request forms, to interpret the patient's clinical history and to understand the written and spoken language of medicine. Latin and Greek word parts, medical abbreviations, positions, medicine specialties, topographic systems, operative procedures and disease descriptions are learned.

RADT 2115 Physics of X-Ray Equipment

The design and function of diagnostic x-ray equipment is learned to enable the student radiographer to use the equipment efficiently and effectively, understand equipment limitations and appreciate the need for safety and to select suitable equipment based upon workload and available space. Major topics include x-ray circuitry, x-ray tubes, tables, supports and specialized units, equipment care, selection and installation.

RADT 2132 Special Imaging and Therapeutic Modalities

The student radiographer is introduced to intravenous therapy procedures, the basic principles of the specialized imaging modalities of nuclear medicine, special radiographic procedures, ultrasound, computerized tomography, digital imaging, and magnetic resonance imaging, as well as the fundamentals of therapeutic radiation (radiation therapy).

RADT 2142 Advanced Radiographic Evaluation

During this course, the second year radiography student learns to evaluate and/or recognize common technical errors conducive to repeat examination. Radiographs of all body parts are reviewed and all types of artifacts are identified.

RADT 2162 Radiographic Pathology

RADT 2211 Clinical Applications IV

With limited supervision, the students enhance their imaging; positioning and patient care skills by performance of operative radiographic examinations, neuro/intra-oral and spinal examinations.

RADT 2232 Radiology Management

The radiography student is introduced to the fundamental principles of management, the basic patient care system, and departmental organization to include such important topics as accreditation standards, employee motivation and retention, and policy and procedure manuals. Quality assurance is defined and there is detailed study of radiographic quality control procedures.

RADT 2312 Clinical Applications V

Under the guidance of staff radiologists and senior technologists, the students will perform advanced radiographic examinations utilizing their combined positioning, imaging and equipment operations skills. An introductory level clinical orientation to the special imaging and therapeutic modalities is experienced.

RADT 2322 Clinical Application VI

With limited supervision, each student will be expected to properly adjust and operate the most advanced diagnostic radiology equipment based upon skills learned in the physics of x-ray equipment, radiographic imaging and positioning

courses. Completion of the special imaging and/or therapeutic modalities is included.

Reading

READ 0123 Reading Skills & Techniques

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 includes an introduction to basic respiratory care procedures including theory and clinical application. Areas that will be covered include oxygen administration, humidification, aerosol therapy and pharmacology, using the American Association of Respiratory Care guidelines and protocols. The course will explore the use and purpose in supportive treatment of the patient with pulmonary problems. Fundamentals of respiratory therapy will be covered including the atmospheric gases, gas laws, gas cylinders, regulating agencies, pressure reducing valves, flow meter, humidifiers, nebulizers and oxygen delivery devices. Applicable principles of physics will be discussed.

RESP 1121 Clinical Applications I

This course provides for experience in the clinical setting of hospitals and clinics, including both emergency and general floor care of respiratory procedures. This course will also include an introduction to the practical application of oxygen therapy, gas cylinders, humidity and aerosol therapy, assessment of vital signs and breath sounds, physical assessment of the patient, oxygen equipment and the cleaning and sterilization of equipment.

RESP 1133 Clinical Pharmacology

Pharmacology is the study of chemicals (drugs) and their interaction with the human body. This course includes in-depth study of cardiopulmonary drug classes, their mechanism of action, indications for use, side effects, generic and trade names and their dosages.

RESP 1214 Respiratory Care Procedures II

This course is a continuation of Introduction to Respiratory Care Procedures with more advanced respiratory care procedures including theory and clinical applications using the American Association of Respiratory Care guidelines and protocols. This course is designed to teach the student practices and principles of oxygen therapy, IPPB, chest physiotherapy, cardiopulmonary resuscitation and related lifesaving maneuvers, basic ECG interpretation and airway management, including the use of various artificial airways.

RESP 1223 Clinical Applications II

Continuation of Clinical Applications I with increasing knowledge in the clinical setting and delivery of respiratory care with an increased 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.

RESP 1232 Clinical Applications III

Continuation of Clinical Applications II with rotations to start orienting students to the intensive care unit. Emphasis will be placed on the student's ability to aid in the diagnosis, care and management of respiratory care patients.

RESP 1243 Pulmonary Pathology

The study of respiratory diseases, including signs and symptoms, etiology, pathophysiology, treatment and prognosis for both adult and pediatric patients. Emphasis will be placed on the several major treatment modalities associated with cardiopulmonary disease.

RESP 1253 Cardiopulmonary Anatomy and Physiology

The study of clinical medicine predicted on the basic sciences of anatomy and physiology, pharmacology and biochemistry. The therapist needs this knowledge to effectively tailor the care to fit the changing needs of the patient by evaluating the body in the disease state; also to understand the anatomy and physiology of the cardiopulmonary system as related to the interpretation of arterial blood gases and gas exchange. With this knowledge the practitioner can tailor the care of the patient's needs for ventilation and oxygenation.

RESP 2124 Advanced Clinical Applications I

Continuation of practical application of theories previously presented with emphasis on the care and management of the critical and mechanically ventilated respiratory care patient. Rotations will include the intensive care unit, heart catheterization lab, pulmonary rehabilitation and home care, physician clinic, polysomnography lab and a surgery rotation focusing on endotracheal intubation practice.

RESP 2224 Advanced Clinical Applications II

This clinical experience is designed to orientate the RCP to the environment of neonatal and pediatric intensive care.

RESP 2232 Advanced Clinical Applications III

A continuation of critical care management, with a shift in the student's thinking from task-oriented perspective to

patient-outcome perspective by emphasis on the development of clinical judgment. Clinical rotations will include adult ICU, pediatric ICU, neonatal ICU and an elective rotation through any specific area of interest.

RESP 2422 Pulmonary Diagnostics & Rehabilitation

This course will cover specialty equipment and problems of providing respiratory care in the home. In addition, the student will be given the opportunity to learn the definitions, essential components, organization and structure of a pulmonary rehabilitation program. This course will also include alternate settings in the emerging specialty areas for the advanced Respiratory Care Practitioner.

RESP 2445 Mechanical Ventilation

This course will teach the basics and parameters of continuous ventilation including special procedures. Students will also learn acid-base physiology as it applies to ventilator changes. Laboratory applications will include proficiency in ventilator classification and functions as well as ventilator setup and setting changes using the American Association of Respiratory Care guidelines and protocols.

RESP 2513 Introduction to Critical Care

This course is designed to take the entry-level technician to become an advanced Respiratory Care Practitioner. It will expand on critical care skills and the whys and why nots of Respiratory Care. The student will learn to select, collect, review and interpret clinical data including pulmonary function testing and cardiopulmonary exercise testing. The student will learn to evaluate appropriateness of prescribing therapy and participate in the development and delivery of the Respiratory Care Plan. Students will work on developing and using respiratory protocols where appropriate within hospital guidelines.

RESP 2613 Pediatric and Neonatal Respiratory Care

This course will provide the student with the opportunity to learn advanced skills and knowledge about neonatal and pediatric routine and critical respiratory care. The course will approach the subject as a separate portion of modern respiratory cares rather than a modification of adult care. The course will also separate pediatric and neonatal respiratory care modalities. The course contains information beginning with developmental and introductory concepts, then progresses through anatomical and physiological differences, equipment and therapeutic modalities, home care and developmental outcomes using the AARC guidelines and protocols. The goal of this course is to provide the entry-level practitioner with the knowledge, information and skills necessary to provide respiratory care to the pediatric and neonatal patient at the advanced practitioner level.

RESP 2621 Board Exam Review

This course is a review of the previous 24-month curriculum. The student will review the National Board of Respiratory Care (NBRC) entry-level examination content (CRT) and learn specific testing techniques needed to be successful during the first portion of this class. During the second portion of the class the student will review the NBRC advanced level examination content (RRT) and learn specific testing techniques needed to be successful.

RESP 2622 Professional Development of the Respiratory Care Practitioner

This course is designed to provide for the professional development of the respiratory care practitioner including topical studies of bio-ethics, workplace management, personal financial management, patient/family communication, physician interaction, resume development and job interviewing skills.

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.

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.

SOCI2323 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.

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.

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".

SOCI 2450 Study Sociology

Independent study.

Speech and Broadcasting

SPCH 1653 Radio Broadcasting

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

SPCH 1713 Introduction to Oral Communication

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

SPCH 2010 Speech Activity Participation- Radio

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

SPCH 2123 Television Production

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

Surgical Technology

SRGT 1102 Orientation to Surgical Technology

The student is introduced to professional responsibilities regarding surgical technology. Skills are presented for interpersonal relations and communication with other health care personnel. The student learns and explores the general operating room environment.

SRGT 1112 Introduction to Surgical Technology

The student is introduced to study skills, allied health education, opportunities for career growth and development, medical ethics and professionalism, medical/surgical legal considerations, basic surgical furniture and equipment, professional growth and fundamental safety and surgical protection practices.

SRGT 1212 Medical Terminology

This course is to develop the student surgical technologist's ability to follow directions on lab request forms, to interpret the patient's clinical history and to understand the written and spoken language of medicine. Latin and Greek word parts, medical abbreviations, positions, medicine specialties, topographic systems, operative procedures, and disease descriptions are learned.

SRGT 1223 Basic Sciences for Surgical Technology I

The structure and function of the human body is studied as it relates to surgical technology. Detailed study of the cells, tissues, integumentary, muscle, skeletal, nervous, cardiovascular, respiratory, digestive, reproductive, urinary systems while less emphasis is placed on the endocrine and lymphatic systems.

SRGT 1327 Basic Sciences for Surgical Technology II

The student is introduced to microorganisms, both beneficial and pathogenic. The history of microbiology is explored and the disease process is learned. The immune system is explored, and the student learns the body's immune response, the importance of immunizations to protect from disease and the body's response to wound healing.

SRGT 1342 Clinical Applications I

Provides clinical experience in the surgical environment with emphasis on major surgical procedures. The student will spend nine (9), eight (8)-hour days in the clinical sites.

SRGT 1411 Aseptic Techniques

The student learns the principles of aseptic technique, and the process of the surgical hand scrub, gowning-gloving self and other members of the surgical team. Emphasis is placed on sterilization and disinfections.

SRGT 1421 Patient Care

This course is designed to provide the student with the necessary knowledge to perform the preoperative routines related to the surgical patient. The aspects of routine positioning, prepping and the surgical patient are accomplished. Emphasis is placed on cardiopulmonary resuscitation, care of the pediatric patient, care of the patient with special needs, and care of the chronic and terminal patient.

SRGT 1431 Supplies and Equipment

This course is designed to introduce the student to surgical instruments. The student is introduced to the name, purpose, and function of basic surgical instruments. Emphasis is placed on sutures, needles and stapling devices used on patients during surgical procedures. Surgical dressings, sponges, packings, catheters, drains, tubes, and collecting devices are explored. A detailed study of the importance of sponge, sharp and instrument counts is presented. The

student surgical technologist learns to establish a sterile field and the role of the circulating person.

SRGT 2221 Pharmacology

This course is designed to introduce the student to the process of the metric system involving the surgical technologist. Pharmacological agents are studied, such as the general purposes of drugs; forms, sources of drugs; trade names of drugs; characteristics of anticoagulants, hemostatic agents, antibiotics/anti-infectives, narcotic analgesics, diuretics, steroids, oxytocics, contrast media, intravenous solutions, blood replacements and care and handling of medications. Anesthesia drugs, interactions of agents, types of anesthesia available, and how the decision of which anesthetic agent is given to the patient. Procedure for the surgical technologist to accept medications from the circulator is presented.

SRGT 2326 Surgical Procedures I

The Student Surgical Technologist is introduced to Surgical Procedures, with emphasis placed on Diagnostic Procedures. Routine General Surgery, Gastrointestinal Surgery, Obstetrics/Gynecology Surgery, Genitourinary Surgery, Ear, Nose, and Throat Surgery, and Ophthalmic Surgery Procedures are explored.

SRGT 2332 Clinical Applications II

Provides clinical experience in the surgical environment. The student spends the allotted time in the clinical site with preceptors, surgeons and other ancillary operating room personnel. The student will scrub and prepare for the assigned surgical procedures.

SRGT 2435 Surgical Procedures II

This is a continuum of Surgical Procedures I. Emphasis is on Plastic, Orthopedic, Neurological, Thoracic, Cardiovascular/Peripheral, Procurement/Transplant, and Trauma Surgical Procedures.

SRGT 2442 Clinical Applications III

Emphasis is placed on the Student Surgical Technologist in the role of the First Scrub and their independent and team role in surgical services. The student will be expected to actually prepare for a given surgical procedure from beginning to end.

Theatre

THTR 1213 Beginning Acting

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

THTR 1223 Introduction to Theatre

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

THTR 1243 Stagecraft I

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

THTR 1262 Stage Makeup

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

THTR 1990 Music Theatre Seminar

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

THTR 2020 Theatre Activity Participation

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

THTR 2213 Intermediate Acting

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

THTR 2243 Stagecraft II

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

THTR 2441 Theatre Dance I

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

THTR 2491 Theatre Dance II

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

THTR 2713 History of the Theatre

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

THTR 2963 Stage Lighting I

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

