

PHYSICAL EDUCATION COURSE DESCRIPTIONS

9 GIRLS PE

Course #: h8110

PE

Grades: 9

Prerequisite: None

Credits: 1 Unit

The majority of each student's physical education grade is based on participation so dressing out on a daily basis is a necessity. Only one PE class may be taken per year. To receive participation points a student must wear the appropriate clothing (tennis shoes, T-shirt, shorts) and actively participate. This course is designed for 9th grade students only who are interested in participating in various team and individual sport activities. Students will also be in the classroom once every two weeks. The following are some of the activities that will be included:

| | | |
|--------------|----------------|------------|
| Volleyball | Basketball | Bowling |
| Aerobics | Softball | Speedball |
| Floor Hockey | Weight Lifting | Pickleball |
| Badminton | Flag Football | Swimming |

9 BOYS PE

Course #: h8120

PE

Grades: 9

Prerequisite: None

Credits: 1 Unit

The majority of each student's physical education grade is based on participation so dressing out on a daily basis is a necessity. Only one PE class may be taken per year. To receive participation points a student must wear the appropriate clothing (tennis shoes, T-shirt, shorts) and actively participate. This course is designed for 9th grade students only who are interested in participating in various team and individual sport activities. Students will also be in the classroom once every two weeks. The following are some of the activities that will be included:

| | | |
|--------------|----------------|------------|
| Volleyball | Basketball | Bowling |
| Aerobics | Softball | Speedball |
| Floor Hockey | Weight Lifting | Pickleball |
| Badminton | Flag Football | Swimming |

GIRLS PE

Course #: h8150

PE

Grades: 10, 11, 12

Prerequisite: None

Credits: 1 Unit

The majority of each student's physical education grade is based on participation so dressing out on a daily basis is a necessity. Only one PE class may be taken per year. This course is designed for 10th-12th grade students who are interested in participating in various team and individual sport activities. This course may NOT be retaken. The following are some of the activities that will be included:

| | | |
|--------------|----------------|------------|
| Volleyball | Basketball | Bowling |
| Aerobics | Softball | Speedball |
| Floor Hockey | Weight Lifting | Pickleball |
| Badminton | Flag Football | Swimming |

BOYS PE

PE

Prerequisite: None

Course #: h8170

Grades: 10, 11, 12

Credits: 1 Unit

The majority of each student's physical education grade is based on participation so dressing out on a daily basis is a necessity. Only one PE class may be taken per year. This course is designed for 10th-12th grade students who are interested in participating in various team and individual sport activities. This course may NOT be retaken. The following are some of the activities that will be included:

| | | |
|--------------|----------------|------------|
| Volleyball | Basketball | Bowling |
| Aerobics | Softball | Speedball |
| Floor Hockey | Weight Lifting | Pickleball |
| Badminton | Flag Football | Swimming |

COED BODY CONDITIONING

PE

Prerequisite: 9th graders need permission from a MS/HS coach. Students 10-12 must have passed PE or taken COED in 9th Gr.

Course #: h8210

Grades: 10, 11, 12

Credits: 1 Unit

COED is an advanced Physical Education class requiring a sports physical through the duration of the class due to the physical and strenuous demands to the body. The majority of each student's PE grade is based on participation. Dressing out on a daily basis is a necessity. This course is designed for students primarily interested in weight training. Students will lift weights 4 days a week and have one day of various sport activities/aerobics.

HEALTH COURSE DESCRIPTION

HEALTH

Health

Prerequisite: None

Course #: h8611(1)/h8612(2)

Grades: 11, 12

Credits: ½ Unit

The purpose of this course is to give students a better awareness and a more up-to-date look at health and its importance to them as individuals. Some topics discussed are: alcohol, drugs, first aid, safety, tobacco, bone and muscle structure and mental health and wellness.

SCIENCE COURSE DESCRIPTIONS

PHYSICAL SCIENCE

Science - Required

Prerequisite: None

Course #: h4010

Grades: 9

Credits: 1 Unit

This is a required course which focuses on the basic concepts of physics and chemistry. Topics include Laws of Motion, matter and energy, elements and compounds, and the Periodic Table.

Materials: Calculator, folder, pencils.

BIOLOGY I*Science - Required**Prerequisite: None**Course #: h4050**Grades: 10**Credits: 1 Unit*

Biology gives a detailed look at organisms on a cellular level, relationships with their environment, and other organisms. Topics covered include how energy and matter cycle within the ecosystem; cell parts, functions and processes including mitosis and meiosis; taxonomy, kingdoms, and biomes; genetics, genetic disorders and the structure of DNA; body systems. Students will explore through dissections, microscope work and continue the use of the scientific method. This course is required for all 10th graders. Materials--colored pencils.

BIOLOGY II*Science**Prerequisite: Biology (B)**Course #: h4110**Grades: 11, 12**Credits: 1 Unit.*

Biology II is an extension of Biology I. Topics discussed during the school year may include: Classification, structure and functions of Bacteria, Viruses, Plants and Animals; Development-the process of changes from one cell to many; Genetics-the study of DNA, genes, probability and traits; Marine Biology-ocean ecosystems and functionality; Comparative Anatomy-how different systems of animals compare and contrast with those of humans. Students will explore through dissections, microscope work and discussion. Class will include several projects. Materials--colored pencils.

ENVIRONMENTAL/EARTH SCIENCE*Science**Prerequisite: Phy Sci, Biol**Course #: h4150**Grades: 11, 12**Credits: 1 Unit*

An elective course for juniors and seniors who have successfully completed Physical Science and Biology I. The first semester will focus on general principals and concepts of Earth Science, and the second semester will focus on Environmental Science.

CHEMISTRY*Science**Prerequisite: Algebra1(C), Phy Sci (C)**Course #: h4210**Grades: 10, 11, 12**Credits: 1 Unit*

Chemistry is the study of the structure and properties of matter and the study of the changes in matter. In this course we will concentrate on classification of matter, the effects of energy, and subatomic structure. We will also discuss the development of the periodic table and the standards for naming compounds. Students will be able to perform calculations involving the reactions of materials and predict the outcomes of chemical reactions. We will finish the year looking at chemical bonding and molecular structure. This class relies heavily on math and logic skills. Each student is required to have a scientific calculator. (\$12-\$15)

CHEMISTRY II*Science -Weighted**Prerequisite: Chemistry(B),**Fund Chem (A or Tch Rec)**Course #: h4251**Grades: 11, 12**Credits: 1 Unit*

Chemistry II is an introductory college chemistry course. The class grade will be dependent on homework, laboratory, and tests/quizzes. The course will cover the following topics: measurements, conversions, nomenclature, stoichiometry, solution chemistry, thermochemistry, gases, electrons, periodic trends, chemical bonds, and molecular structure and bonding theories.

Materials needed: Scientific calculator and laboratory notebook.

PHYSICS*Science -Weighted**Prerequisite: Phy Sci(A), Trig, Tch Rec**Course #: h4311**Grades: 11, 12**Credits: 1 Unit*

An advanced course which studies the physical laws of nature. Topics include Newton's Laws of Motion, properties of moving objects, physical properties of matter, special relativity, electricity, magnetism and gravitational interactions. A large amount of the course will involve mathematics, and a scientific calculator is required.

PHYSIOLOGY*Science-Weighted**Prerequisite: Chem (B), Biology (B),**Course #: h4363**Grades: 11, 12**Credits: ½ Unit.*

Physiology is an in-depth study of the organ systems and their functions including basic organic chemistry and metabolism. Attention will be given to the individual functioning of each system and their interrelationships. Students will explore these systems through various labs. This course will be offered 1st semester opposite of Anatomy. Materials--colored pencils or markers.

ANATOMY*Science- Weighted**Prerequisite: Physiology**Course #: h4352**Grades: 11, 12**Credits: ½ Unit*

Anatomy is an in-depth, text book study of body terminology and the skeletal and muscular systems. Students will be challenged to self-study, as they will learn approximately 50 new terms per week. Students may be required to make a life size drawing of the internal body and are required to perform a summative dissection at the end of the course. Offered 2nd semester opposite of Physiology. It is highly recommended that students take Bio. II or Chem. I. Materials--colored pencils or markers.

SOCIAL STUDIES COURSE DESCRIPTIONS**AMERICAN HISTORY***Social Studies - Required**Prerequisite: None**Course #: h2010**Grades: 10**Credits: 1 Unit*

American History is a general survey of American history from 1865 to the present. Economics, geography, and political science are integrated into this course. Students will understand how the United States grows and changes, improving their understanding of the U.S. and its place in the world.

WORLD HISTORY*Social Studies -Required**Prerequisite: None**Course #: h2050**Grades: 9, 10**Credits: ½ Unit*

World History is a survey course that covers major themes of early modern and modern world history. The course focuses on the course of Western civilization and interactions between nations, states, and cultures with considerations to their impact on the world today. Reading, writing, and study skills that will emphasized throughout.

COMPARATIVE GOVERNMENT

Course #: h2070

Social Studies - Required

Grades: 11

Prerequisite: None

Credits: 1 Unit

The United States and Missouri Constitutions are the emphasis of this class. The actual writing of the document and the changes in modern interpretations will be the focus throughout the course. The course will also compare and contrast other forms of government throughout the world. American politics and in-depth looks at the three branches will be included.

PSYCHOLOGY

Course #: h2212

Social Studies -Weighted

Grades: 11, 12

Prerequisite: Social Studies (B)

Credits: ½ Unit

This course is the study of individual human behavior. The course includes studies of personality development, principles of learning, methods of researching human behavior, and ways of reacting to frustration and conflict. This is an advanced course designed for college-bound students. Problems involving research will be an integral part of this course. This course is offered second semester opposite of Sociology.

SOCIOLOGY

Course #: h2223

Social Studies-Weighted

Grades: 11, 12

Prerequisite: Social Studies (B)

Credits: ½ Unit.

The goal of an introductory sociology course is to see the connection between the individual and society and to understand how social forces shape our behavior. Sociology studies life in groups; through this we gain insight into our own selves. Topics include social groups, social control, social stratification, and inequalities of gender, race and ethnicity. This course will examine the influences of technology and liberal and conservative views on social issues. Problems involving research will be an integral part of the course. This class is weighted and will be offered the first semester opposite of Psychology.

POLITICAL SCIENCE

Course #: h2231

Social Studies - Weighted

Grades: 12

Prerequisite: Social Studies (B)

Credits: ½ Unit

The objective of this course is to allow the student to gain a more comprehensive understanding of American government and Missouri state government, especially the institutions and processes that are responsible for the formation and execution of public policy. Upon completion of this course the student should be able to understand contemporary events more fully. This course may be taken for high school and/or college credit (1510 AM GOV through UCM). This course will be offered 1st semester opposite of American History 1877 to Present. Students not taking the class for dual credit will be responsible for book rental costs, approximately \$60.

AMERICAN HISTORY; 1877 TO PRESENT

Course #: h2242

Social Studies - Weighted

Grades: 12

Prerequisite: Social Studies (B)

Credits: ½ Unit

This class is a survey of American history from 1877 to the present. It is an advanced course designed for college bound students. Writing will be required as an integral part of the course. This course will be offered 2nd semester, opposite of Political Science-1510 American Government.

ECONOMICS*Social Studies**Prerequisite: None**Course #: h2411**Grades: 10, 11, 12**Credits: ½ Unit*

This course will investigate economic theory, applied economics, and practical economics. Consumer decision making, budgeting, finance, and entrepreneurship are a few of the topics that will be covered. The finance unit will include information on paying for a college education. Instruction will emphasize student research and applied math skills. This course will be offered 1st semester opposite of Recent World History.

RECENT WORLD HISTORY*Social Studies**Prerequisite: None**Course #: h2422**Grades: 10, 11, 12**Credits: ½ Unit*

This course will focus on American and World History since the end of the Second World War. The Cold War, the Space Race, modern music, and the collapse of the Soviet Union are among the topics that will be covered. This course will emphasize the use of primary sources such as newspapers, interviews, and other artifacts as a method of studying history. This course will be offered 2nd semester opposite of Economics.

AGRICULTURE SCIENCE COURSE DESCRIPTIONS

Three science based ag classes that meet the criteria can equal a third year science class. The third science based ag class must be taken in the junior year. Two science based ag classes must be completed by the start of the third year. To be a member of FFA a student must be in a least one ag class. Purchasing a FFA jacket is not required to be in FFA.

AGRICULTURAL SCIENCE I (ANIMAL SCI)*Practical Art**Prerequisite: None**Course #: h6110**Grades: 9, 10**Credits: 1 Unit*

A course designed for instruction in animal science, food science, agricultural mechanics (Arc, MIG, Oxy-fuel welding and carpentry), careers, leadership through the F.F.A., supervised agricultural experience programs and record keeping. Units will give special attention to the application of science in the livestock industry, and wildlife management. Joining F.F.A. is required. Students will need to purchase a record book. (\$11). Class meets the criteria as one of the three ag classes which can equal third year science class.

AG SCIENCE II (PLANT SCIENCE)*Practical Art**Prerequisite: Ag I, Any interested student**Course #: h6150**Grades: 10, 11, 12**Credits: 1 Unit*

This course will give instruction in plant and soil sciences as it deals with horticultural plants and crops. Additional units will include: forestry, entomology, careers, leadership through the F.F.A., parliamentary procedure, supervised agricultural experience programs, record keeping and to further develop agricultural mechanics skills in: Arc, MIG, Oxy-fuel welding, and Plasma cutting. Joining F.F.A. is required. Class meets the criteria as one of the three ag classes which can equal third year science class.

AGRICULTURAL CONSTRUCTION I & II

Course #: h6210

Practical Art

Grades: 11, 12

Prerequisite: Ag Const or Welding

Credits: 1 Unit

A welding skills course that utilizes advanced metallurgy, plan reading and project construction of major metal and wood shop projects. Emphasis will be on project construction utilizing Arc and MIG welding, Oxy-fuel welding and cutting and plasma cutting. A major shop project from metals is required. Personal development in supervised agricultural experience projects, record keeping and F.F.A. leadership are all part of the course. Joining the F.F.A. will be required. Students will need to buy welding gloves and safety glasses. Students are financially responsible for metal used in projects.

WELDING I & II

Course #: h6230

Practical Art

Grades: 11, 12

Prerequisite: None

Credits: 1 Unit

Through hands-on instruction learn how to mig, arc and tig (aluminum) weld, oxy-fuel welding, plasma cutting, brazing and cutting. This course may be taken for dual credit through UCM; (Tuition to be determined) 3 hours college credit when taken with Ag Structures. Articulation with Linn State Tech College for 6 hrs credit is also available w/Welding 2. Welding skills will be developed in all positions and with different electrodes and different metals. After mastering required welds, students will be able to apply what they learn by building metal projects. Each project will have a point value assigned to it. Students will need to purchase welding gloves and safety glasses. Students are financially responsible for metal used in projects. Joining the F.F.A. will be required. Welding certification will be offered.

SMALL GAS ENGINES (Ag. Power I & II)

Course #: h6241

Practical Art

Grades: 11, 12

Prerequisite: None

Credits: ½ Unit.

Limited to 18 students. This course develops the skills necessary for the understanding of basic engine theory, engine maintenance, repair, adjustment, testing and complete overhaul of small gasoline engines. Hands-on activities will include analysis of lubrication and fuel systems, ignition, carburetion and compression systems. Joining F.F.A. is required. Offered 2nd semester opposite of Ag. Structure.

AGRICULTURAL STRUCTURES I & II

Course #: h6252

Practical Art

Grades: 11, 12

Prerequisite: None

Credits: ½ Unit

This course includes building portable sheds, carpentry, electrical wiring, electric motors, concrete masonry, plumbing, farm fences, product handling and processing equipment, and farm buildings. Wood working carpentry skills will be used to build wood projects. Joining F.F.A. is required. Offered 1st semester opposite of Small Gas Engines. Can be offered as a dual credit class, 3 hrs. credit from UCM for \$100 per credit hour (Tuition cost may change) when taken with Welding. Offered 1st semester opposite Small Gas Engines.

GREENHOUSE MANAGEMENT I & II*Practical Art**Prerequisite: None**Course #: h6410**Grades: 10, 11, 12**Credits: ½ Unit*

This course will teach how to successfully grow garden and floriculture crops and plants (house plants). Instruction in soils and plant propagation, plant I.D. and their use, wreath construction, floral design and construction of corsages and boutonnieres. Fun, hands-on learning will take place while learning how to grow poinsettias, flowers and vegetables in the greenhouse. Joining F.F.A. is required. Class meets the criteria as one of the three ag classes which can equal third year science class. This course will be offered 2nd semester opposite Floriculture. Offered odd numbered school years ('13-'14 and '15-'16).

FLORICULTURE*Practical Art**Prerequisite: None**Course #: h6432**Grades: 10, 11, 12**Credits: ½ Unit*

This course involves a general study in working with greenhouse plants, the home garden and orchard and Plant Propagation. Growing plants in the greenhouse will be included. Joining the F.F.A. is required and students will need to purchase plants for activities. Class meets the criteria as one of the three ag classes which can equal third year science class. This course will be offered 1st semester opposite of Greenhouse Management. Offered odd numbered school years ('13-'14 and '15-'16).

**CONSERVATION OF NATURAL RESOURCES
& WILDLIFE MANAGEMENT***Practical Art**Prerequisite: None**Course #: h6420**Grades: 10, 11, 12**Credits: 1 Unit*

A course that prepares students for activities in the conservation and/or improvement of natural resources such as water, soil, air, forests, fish, and wildlife for economic and recreational purposes. Many hands-on activities will be included. Hunter Education Certification and First Aid Training will be part of the course. Joining the F.F.A. will be required. Class meets the criteria as one of the three ag classes which can equal third year science class. Offered even numbered school years ('12-'13 and '14-'15).

LANDSCAPING AND TURF MANAGEMENT*Practical Art**Prerequisite: Tch Apr**Course #: h6442**Grades: 11, 12**Credits: 1 Unit*

A course that prepares students for activities in the landscaping industry using techniques of landscape design, landscape construction, installation and maintenance of plants. Course units will include: plant and soil science, plant propagation, plant identification, pesticides, turf management, landscape design, and site analysis and evaluation. Growing plants in the greenhouse will be included. F.F.A. leadership and supervised agricultural experiences will be part of this course and special attention will be given to on-site practicums for student experience. Class meets the criteria as one of the three ag classes which can equal third year science class. Joining the F.F.A. is required. Offered even numbered school years ('12-'13 and '14-'15).

ADVANCED LIVESTOCK*Practical Art**Prerequisite: None**Course #: h6611**Grades: 10, 11, 12**Credits: ½ Unit.*

An advanced study in animal production in the areas of: management, marketing, nutrition, breeding genetics, selection, animal health, meat classification and food processing. Instruction will include leadership development through the F.F.A. and supervised agricultural experience programs. *May include wildlife and other classification of animals according to student needs. Joining the F.F.A. is required. Class meets the criteria as one of the three ag classes which can equal third year science class. This class will be offered 1st semester opposite of Equine Science. Offered odd numbered school years ('13-'14 and '15-'16). Class may be taken for 3 hrs dual credit through UCM.

EQUINE SCIENCE (HORSE PRODUCTION)*Practical Art**Prerequisite: None**Course #: h6622**Grades: 10, 11, 12**Credits: ½ Unit*

An advanced study in Horse Production in the areas of management, marketing, nutrition, breeding, genetics, selection, health and skills in handling. May include other livestock species if time permits. Instruction will include leadership and the F.F.A. opportunities will be included in this course. Joining the F.F.A. will be required. Class meets the criteria as one of the three ag classes which can equal third year science class. This class will be offered 2nd semester opposite of Advanced Livestock. Offered odd numbered school years ('13-'14 and '15-'16). Class may be taken for 3 hrs dual credit through MSU.

AGRICULTURAL BUSINESS & ECONOMICS*Practical Art**Prerequisite: None**Course #: h6711**Grades: 10, 11, 12**Credits: ½ Unit*

This class will be accepted as a substitute for one unit of economics (social studies) for admission to the University of Missouri. This course is based on agricultural economic principles. Problems in total agriculture and family will be studied and will include renting land, purchasing land, partnerships, cropping and livestock systems, financing, insurance, keeping and analyzing records, economic principles, price cycles, government programs, grain exchange, marketing systems, and transportation. Units include human relations, verbal and written communication, microcomputers in agriculture, economic principles, budget planning, agribusiness functions and business management. Offered first semester opposite of Ag Sales & Marketing. Joining the F.F.A. will be required. Offered odd numbered school years ('13-'14 and '15-'16).

AGRIBUSINES SALES & SERVICES W/MARKETING*Practical Art**Prerequisite:**Course #: h6722**Grades: 10, 11, 12**Credits: ½ Unit*

Human relation skills, personal inventory, careers in selling, and other experiences necessary for employment in agribusinesses engaged in marketing, purchasing and storing, grading, and transporting supplies and products. Product knowledge, information, maintenance repair, selection setup, application and safety along with learning and demonstrating the steps in making sales presentations will be a large part of this class as it deals with sales presentations, product displays and handling sales pressures. Offered second semester opposite Agriculture Business & Economics. Joining the F.F.A. will be required. Offered odd numbered school years ('13-'14 and '15-'16).

ADVANCED AG LEADERSHIP & COMMUNICATIONS*Practical Art**Prerequisite: None**Course #: h6730**Grades: 10, 11, 12**Credits: 1 Unit*

A specific course designed for the training of F.F.A. officers, F.F.A. Committee Chairman, other organizational club officers or those wanting to hold these positions. Public speaking will be emphasized. An advanced study that prepares students to be leaders through active study in Parliamentary Procedure, Officer Duties, Record Keeping, Economics, Supervised Agricultural Experiences, Leadership Training, Job Training, Team Work & Life Skills and managing the F.F.A.'s Program of Activities. Joining F.F.A. is required. Offered even numbered school yrs ('12-'13 and '14-'15).

COOPERATIVE OCCUPATIONAL EDUCATION COURSE DESCRIPTIONS**MARKETING FUNDAMENTALS***Practical Art**Prerequisite: None**Course #: h6810**Grades: 9, 10, 11, 12**Credits: 1 Unit*

This course is for students interested in the field of marketing and distribution. This course will introduce our free enterprise system and the marketing processes required to get goods and services from the producer to the consumer. Units of study will include careers, sales, promotion, pricing strategies, retailing and developing a business plan. This class is highly recommended for students who are considering taking C.O.E. as a senior. DECA membership is required.

ENTREPRENEURSHIP*Practical Art**Prerequisite: None**Course #: h6831**Grades: 10, 11, 12**Credits: 1/2 Unit*

This course is designed for students that are interested in pursuing careers in the business world or who aspire to own their own business one day. The class will introduce basic economic and business concepts with a focus on entrepreneurship. Areas of study will include economics, owning and operating a business, marketing to the consumer, human resources, credit, financial and risk management. DECA membership is required. Course is offered first semester opposite Advertising in odd numbered school years ('13-'14 and '15-'16).

ADVERTISING*Practical Art**Prerequisite: None**Course #: h6832**Grades: 10, 11, 12**Credits: 1 Unit*

Students will learn about the various types of advertising including newspaper, radio, television, magazine, outdoor and specialty advertising. Students will prepare, analyze and research advertising from both a product and consumer standpoint. Guest speakers and a possible field trip will enhance student learning. Students will complete various projects individually and in groups. DECA membership is required. Course is offered second semester opposite Entrepreneurship in odd numbered school years ('13-'14 and '15-'16).

SPORTS & ENTERTAINMENT MARKETING*Practical Art**Prerequisite: None**Course #: h6841**Grades: 11, 12**Credits: 1/2 Unit*

Explore the intriguing world of sports and entertainment from the perspective of marketing. Topics covered will include college and amateur sports, professional sports, public images, marketing entertainment, marketing plans and legal issues. If you are a sports nut or are interested in the wonderful world of marketing, you will want to enroll in this class. DECA membership is required. Course will be offered first semester opposite Sports & Entertainment Management. Offered even numbered school years ('12-'13 and '14-'15).

SPORTS & ENTERTAINMENT MANAGEMENT*Practical Art**Prerequisite: None**Course #: h6842**Grades: 11, 12**Credits: ½ Unit*

This course is designed to provide students with a basic understanding of management principles. Management topics include leadership, finance, product, people and information management, legal and ethical issues, customer relations, sales management, managing change and career development. Students will integrate management principles and current practices into the sports and entertainment industry. DECA membership is required. Course will be offered second semester opposite Sports & Entertainment Marketing. Offered even numbered school years ('12-'13 and '14-'15).

COOPERATIVE OCCUPATIONAL ED – COE*Practical Art**Prerequisite: Marketing Rec, Application**Course #: h6910**Grades: 12**Credits: 3 Unit*

The COE work study program is an opportunity for seniors to attend school part time if they meet all graduation requirements. A principle objective is the construction of a good job history. Satisfactory participation in our COE program requires the enrollment in COE class and a minimum of 20 hours of supervised employment per week for 2-3 hours of release time. Materials studied include choosing a career, securing employment, employee-employer relations, safety skills at work, resume writing, preparation for job interviews, and work readiness. As a member of the COE program there will be financial and fund raising obligations. DECA membership is required and students must complete 4 hours of community service. Once accepted in to the program each student with his/her parent will visit with the COE coordinator prior to school to go over the program. Students must attend school a minimum of four hours per day. COE students must be enrolled in 4 credit earning classes during their 4 hours of attendance.

CADET TEACHER COURSE DESCRIPTION

CADET TEACHER

Course #: h0120

Practical Art

Grades: 12

Prerequisite: 2.75 Cumulative G.P.A., 95% attendance,

Credits: 1 Unit

FTA Membership, Application

Only 18 senior students will be selected from those who sign up during spring enrollment. Selection is based on the above prerequisites in addition to three (3) teacher evaluations to be obtained from cadet teaching supervisor. Membership in FTA (Future Teachers of America) is required and dues must be paid before a cadet can begin teaching. Cadets must state a preference in teaching assignment, but the final decision will be made by the cadet teaching supervisor. They will be required to miss no more than four (4) days a semester (excluding medical/school excused absences) and their credit teaching grade can't fall below 70%, or the student will be dropped from the program at semester. Their grade will be based on attendance at meetings, daily journal entries, quarterly article reviews and semester lesson plans.

School transportation will not be provided. Cadets are expected to spend five days per week in the classroom with a supervising teacher. Daily attendance and keeping up grades are paramount to the success of the student as well as the program.

LIBRARY AIDE COURSE DESCRIPTION

LIBRARY AIDE

Course #: h0110

Practical Art

Grades: 11, 12

Prerequisite: GPA 2.5, Application

Credits: 1 Unit

Library Aides will be selected from those who apply during spring enrollments. Students will gain knowledge in the use of libraries and information technologies. Work experience under supervision introduces the student to demands of a regular job and how to execute these demands. Students will learn responsibility, accuracy, neatness, cooperativeness and problem solving. Library aides will help students locate information, answer questions, assist the librarian in circulating and keeping materials in order. Duties are assigned weekly and rotated for more interest and experience. Limit: 1 student/ hour.

STUDY SKILLS COURSE DESCRIPTION

STUDYSKILLS

Course #: h0130

Prerequisite: None

Grades: 9, 10, 11, 12

Credits: 0 Unit

Study Skills is a class focused on organization and work completion. This class is to be used to improve or maintain work from other classes. Students will be expected to keep an assignment list and stay current with their work/grades from other classes. The Study Skills teacher will monitor class work, grades and use of organization materials. 11th or 12th grade students in a Study Skills class may elect to be a teacher's aide with teacher approval; however, if the student has a D or F grade they will be placed back in the Study Skills class until the grade improves. Students may only take one Study Skills class each semester.

CASS CAREER COURSE DESCRIPTIONS

AUTOMOTIVE TECHNOLOGY

Practical Art

Prerequisite: Application

Course #: h9110

Grades: 11, 12

Credits: 3 Units

This program includes an introduction to automobile engine and chassis design, fuel systems, engine lubrication, automotive electricity, clutch, brake, transmission and wheel suspension systems, proper use of test electrical systems, tune-up procedures, cooling systems, and emissions systems, Instructor interview is required The interview with the instructor will include a short test of math, language and mechanical ability.

FIRE SCIENCE I & II

Practical Art

Prerequisite: Application

Course #: h9110

Grades: 11, 12

Credits: 3 Units

Students will learn entry skills as a firefighter for work in a fire department. Upon completing all required skills, student will then be able to take the State of Missouri certification exams for Firefighter I and II and Hazardous Materials Awareness and Operations. Firefighting will be taught in 2012-2013 and EMT in 2011-2012. Solid study skills are required, over 30 written exams and over 110 practical skills. Instructor interview is required for new students. An interview exam is given with math word problems, fire and medical questions.

CONSTRUCTION TRADES

Practical Art

Prerequisite: Application

Course #: h9110

Grades: 11, 12

Credits: 3 Units

Students in the building trades class construct a house each year. The course content includes planning for construction, building & installing floor, roof and wall layout and framing. In addition, students will learn installation of roofing components, interior trim, cabinet construction, installation and finishing drywall, exterior and interior finishes, and assembling and constructing stairs. General math and tape measure reading necessary. Interview with the instructor is required.

INFORMATION TECHNOLOGY

Practical Art

Prerequisite: Application, Alg 1, Phy Sci

Course #: h9110

Grades: 11, 12

Credits: 3 Units

This course gives you a jumpstart in the fast paced world of computers. Areas covered are: investigating computers, computer troubleshooting, network configuration and administration, computer programming, web page design and most important, A+ certification. You can also earn college credit through this program. Interview with the instructor is required.

HEALTH SERVICES ASSISTANT

Practical Art

Prerequisite: Application

Course #: h9110

Grades: 11, 12

Credits: 3 Units

Students in Health Services will learn anatomy, physiology, medical terminology and nursing skills. In addition, students select clinical rotations including radiology, laboratory, pharmacy, physical therapy, child care, veterinary care, dietary, dental offices or other areas of interest to shadow with health care professionals. May be a one year exploration of options available in the Health Care field. The two year option includes a semester-long internship in long-term care, resulting in acquiring certification as a Nurse's Aide. Interview with the instructor is required.

LIFE CAREERS HEALTH

Practical Art

Prerequisite: Application

Course #: h9110

Grades: 10, 11, 12

Credits: 3 Units

The Life Careers Health program is open to special needs students. The purpose of the program is to prepare the students to be self-sufficient, employable citizens. Course content includes basic nursing assistant skills, as well as related theory needed for certification as a nursing assistant. Second semester juniors and seniors select clinical rotations including radiology laboratory, pharmacy, physical therapy, child care, veterinary care, dietary, emergency room, dental offices, or other areas of interest. Sophomores cover entry level skills for a variety of careers. Emphasis is placed on study skills and career exploration.

SUMMIT TECHNOLOGY ACADEMY COURSE DESCRIPTIONS**DIGITAL ELECTRONICS PLWT**

Practical Art

Prerequisite: Application, Algebra 1 (B)

Course #: h9500

Grades: 11, 12

Credits: 1.5 Units

This is a course in applied logic that gives students the opportunity to learn how computers/logic circuits think and control the world around us. Computer simulation software is used to design and test digital circuitry prior to the actual construction of the circuits. Students will have the opportunity to learn everything from basic electronic circuit design, logic circuit design, all the way to and including programming and interfacing with microcontrollers, which includes robot applications. This course includes an optional ½ unit for an individual instructor approved project that the student completes on their own time. The student project will have weekly goals that must be met by the student. May be taken for dual credit.

COMPUTER INTEGRATED MANUFACTURING PLTW

Practical Art

Prerequisite: Application, GPA 2.0 Algebra 1 (B)

Course #: h9500

Grades: 11, 12

Credits: 1.5 Units

This course is designed to expose students to the fundamentals of computerized manufacturing technology. The course is built around several key concepts: Computer Modeling-using a three dimensional, solid modeling software package with mass property analysis. CNC Equipment-understanding the machine tools and its operating and programming aspects. CAM Software-converting computer generated geometry into a program to drive CNC machine tools. Robotics-using a robot for materials handling and assembly operations. Flexible Manufacturing Systems-working in teams to design manufacturing work-cells and table top factory simulations.

ENGINEERING DESIGN & DEVELOPMENT PLTW

Practical Art

Prerequisite: Application, GPA 2.0 Algebra 2 (B)

Course #: h9500

Grades: 12

Credits: 3 Units

This is a full year engineering research course in which students work on two major engineering projects as well as a research topic. Fall semester students work on an open-ended EDD problem in which they research, design, and devise a solution. During the second semester, students work in teams to research, design, and construct a solution to an open-ended engineering problem through the Lee's Summit Public Works Department. Students apply principles developed in the four preceding courses, learn advanced physics applications, and are guided by an engineering mentor. They must present progress reports, submit a final written report, and defend their solutions to a panel of outside reviewers at the end of the school year. May be taken for dual credit.

IT ESSENTIALS

Practical Art

Prerequisite: Application ,GPA 2.0 Algebra 1 (C),
keyboarding 30 wpm

Course #: h9500

Grades: 11 ,12

Credits: 1.5 Units

This course prepares students for careers as network technicians, as well, as help desk and customer service positions. It provides a basic overview of routing, remote access, addressing, monitoring, security and troubleshooting. It also familiarizes students with servers that provide email services, web space, and authenticated access. This course helps the student prepare for the Cisco Certified Entry Network Technician certification exam. May be taken for dual credit.

NETWORKING ESSENTIALS

Practical Art

Prerequisite: Application ,GPA 2.0 Algebra 1 (C),
keyboarding 30 wpm

Course #: h9500

Grades: 11 ,12

Credits: 1.5 Units

This course familiarizes students with the equipment, applications, protocols, and design principles in enterprise networks. This course focuses on switched networks, IP telephone requirements, and security and introduces advance protocols. With IT Essentials, this course helps the student prepare for the Cisco Certified Network Associate certification exam. May be taken for dual credit.

NETWORK SECURITY

Practical Art

Prerequisite: Tch Appr

Course #: h9500

Grades: 12

Credits: 1.5 Units

This course teaches students the skills needed to obtain entry-level security specialist jobs. It provides a hands-on-introduction to network security. Instructors are encouraged to provide outside-the-classroom learning experiences. This course helps the student prepare for the Certified Cisco Network Associate Security certification exam. May be taken for dual credit.

INTERNSHIP IN NETWORK ADMINISTRATION

Practical Art

Prerequisite: Tch Appr

Course #: h9500

Grades: 12

Credits: 1.5 Units

This course provides students with an internship opportunity in the Information Technology field. Opportunities may be student obtained with instructor approval or through instructor placement or through instructor placement. Internships must be established before the beginning of the course. credit.

DIGITAL MEDIA TECHNOLOGY

Practical Art

Prerequisite: Application ,GPA 2.0 Algebra 1 (C),
1 credit Fine Arts

Course #: h9500

Grades: 11 ,12

Credits: 3 Units

The Entertainment Media Technology program at Summit Tech gives students an opportunity to explore and prepare for careers in the entertainment and media communications industries. Students will focus on audio production technologies including sound generation, studio recording and live sound reinforcement. They will work in teams to integrate music, graphics and video technologies in entrepreneurial projects for their schools and /or communities.

MEDICAL INTERVENTIONS/BIOMEDICAL INNOVATION

Practical Art

*Prerequisite: Application ,GPA 2.0 Anatomy/Physiology,
Chemistry*

Course #: h9500

Grades: 11,12

Credits: 3 Units

Medical Interventions: Students investigate the variety of interventions involved in the prevention, diagnosis and treatment of disease as they follow the lives of a fictitious family. The course is a How-To manual for maintaining overall health and homeostasis in the body as students explore how to prevent and fight infection, how to screen & evaluate the code in human DNA, how to prevent, diagnose and treat cancer, and how to prevail when the organs of the body begin to fail. Students are exposed to a wide range of interventions related to immunology, surgery, genetics, pharmacology, medical devices, & diagnostics. **Biomedical Innovation:** In the capstone course students design and conduct experiments related to the diagnosis, treatment, and prevention of disease or illness. They apply their knowledge and skills to solve problems related to Bio-Medical science. They may work with a mentor or advisor from a university, hospital, physician's office, or industry as they complete their work. Students are expected to present the results of their work to an adult audience, which may include representatives from the local healthcare or business community, or partnership team. May be taken for dual credit.

PRE-PROFESSIONAL NURSING

Practical Art

*Prerequisite: Application ,GPA 2.0 Algebra 1 (C),
Biology (C), Chemistry (C)*

Course #: h9500

Grades: 12

Credits: 3 Units

This course is designed to prepare senior students, who have identified nursing as a clear career goal for a collegiate registered nursing program. Students will learn through classroom instruction and practice in a clinical skills lab. Major units of study include nursing history and career exploration, pharmaceutical math, CPA/First Aid, nursing skills, and medical terminology. The course will introduce students to the nursing process, nursing documentation, effective communication skills, and medical ethics. Students will learn and use APA style in the production of a research paper. May be taken for dual credit.