

FRANKLIN COUNTY HIGH SCHOOL COURSE CATALOG



2022-2023

**FRANKLIN COUNTY HIGH SCHOOL
1100 EAST MAIN STREET
FRANKFORT, KENTUCKY 40601
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<https://www.franklin.kyschools.us/fchs/home>

Administration

Interim PrincipalChris Tracy
Assistant Principal Jennifer Donnelly
Assistant Principal Dawn Kiser
Assistant PrincipalNick Sheridan

Guidance Assignments for the school year:

William Robbins - 9th-12th grade students whose last name begins with letters A-G
Morgan Wiley - 9th-12th grade students whose last name begins with letters H-O
Robin Lawhorn - 9th-12th grade students whose last name begins with letters P-Z

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FCHS COURSE CATALOG 2022-2023

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FRANKLIN COUNTY HIGH SCHOOL

FCHS Diploma

| | |
|---------------------------------|--------------------------------|
| 16 Core Credits | English - 4 Credits |
| | Math – 4 Credits |
| | Science - 3 Credits |
| | Social Studies - 3 Credits |
| | Health - ½ Credits |
| | Physical Education - ½ Credit |
| | Arts and Humanities – 1 Credit |
| 6 Career Cluster Credits | |
| 4 Electives in any content area | |
| TOTAL 26 UNITS | |

The following two pages are checksheets for graduation (Revised 02/2022).
Please refer to the appropriate checksheet for your graduation year.

FCHS GRADUATION REQUIREMENTS-Cohort 2023

Name _____

Cohort 2023

FCHS Diploma: 26 credits

English- 4 credits

- _____ English 1 (9)
- _____ English 2 (10)
- _____ English 3 or AP English Language (11)
- _____ English 4 or AP English Literature or DC English (12)

Math- 4 credits

- _____ Algebra 1
- _____ Geometry
- _____ _____
- _____ _____

Science- 3 credits

- _____ Integrated Science
- _____ Biology w/ Earth Space
- _____ _____

Social Studies- 3 credits

- _____ Global Studies or AP Human Geography
- _____ World History or AP European History
- _____ US History or AP U.S. History or DC U.S. History

Health and Physical Education- 1 credit

- _____ Health (1/2) _____ Physical Education (1/2)

Fine Arts- 1 credit

Electives

CTE Pathway: _____

| | | |
|--------------------------|-----|----|
| Civics Exam: | Yes | No |
| ACT Reading (20): | Yes | No |
| ACT Math (19): | Yes | No |
| ACT English (18): | Yes | No |

FCHS GRADUATION REQUIREMENTS- Cohort 2024 AND BEYOND

Name _____

Cohort 20_____

FCHS Diploma: 26 credits

English- 4 credits

- _____ English 1 (9)
- _____ English 2 (10)
- _____ English 3 or AP English Language (11)
- _____ English 4 or AP English Literature or DC English (12)

Math- 4 credits

- _____ Algebra 1
- _____ Geometry
- _____ _____
- _____ _____

Science- 3 credits

- _____ Integrated Science
- _____ Biology w/ Earth Space
- _____ ICP or Chemistry or Physics w/ Earth Space
- OR
- (Advanced Track)*
- _____ Biology w/ Earth Space
- _____ Chemistry w/ Earth Space
- _____ Physics w/ Earth Space

Social Studies- 3 credits

- _____ Global Studies or AP Human Geography
- _____ World History or AP European History
- _____ US History or AP US History or DC US History

Health and Physical Education- 1 credit

- _____ Health (1/2) _____ Physical Education (1/2)

Fine Arts- 1 credit

_____ _____

Electives

CTE Pathway: _____

| | | |
|--------------------------|-----|----|
| Civics Exam: | Yes | No |
| ACT Reading (20): | Yes | No |
| ACT Math (19): | Yes | No |
| ACT English (18): | Yes | No |

Dual Credit / Advanced Placement / Honors Course Contract Franklin County High School 2022-2023

College Board Advanced Placement and dual credit courses provide college level studies for high school students who desire and are ready to do college level work. These students demonstrate a strong curiosity about the subject and a willingness to complete challenging work. AP courses are taught using college level materials and strategies that will prepare students to take the College Board Advanced Placement examination in May. Because of the intensity of AP and dual credit college classes, students should expect the pace and academic rigor of AP and dual credit courses to be more stringent than regular classes at the same grade level.

Typically, successful Dual Credit, AP and Honors students are task-oriented students as well as proficient readers who are able to organize their time and who have parent/guardian support. Students who are overextended already with academics or extracurricular activities should seriously consider whether they have the necessary time to devote to a Dual Credit/AP/Honors class or classes and whether they can handle more than one advanced course during the same school year.

Dual Credit/AP/Honors Contractual Commitment

1. I understand that in Dual Credit/AP/Honors classes that I am expected to put forth my best effort to improve my intellectual growth, and the course work in those classes will be one of my highest priorities.
2. I understand that Dual Credit/AP/Honors courses are extremely rigorous and will help prepare me for college. I am aware that one or more hours of homework per class per day may be required, and I understand that my social life and extracurricular schedule may require adjustments in order to fulfill the class requirements.
3. I understand that I may be required to complete summer and vacation assignments prior to and during the course that will have a significant impact on my grade. Failure to complete these assignments on time will NOT constitute a valid reason to withdraw from the course. Students, who enroll in school after August 1, will receive the Summer Assignment (if assigned) on the day of registration and will have four weeks to complete and submit the work.
4. I understand that I am responsible for Dual Credit Class Registration fees and textbook. I understand that the focus of an AP class is to prepare for the spring AP exam. The exam fee is paid by those students who choose to take the exam, not by the high school. I am not required to take the exam, and the exam will not negatively impact my grade in the AP class, but if I pass the test, I may receive credit for one or more college courses and/or may be able to skip an introductory college course and take a higher level course, depending on the institution I attend.
5. **Withdrawal from a Dual Credit/AP/Honors course must occur within the first ten (10) school days of the course.** Approval for withdrawal from a Dual Credit/AP/Honors course must be obtained from the following: AP Coordinator/Counselor, teacher, parent, and principal. When a student drops a Dual Credit/AP/Honors, all grades earned in that course follows the student to the new course in which the student enrolls including the summer assignment if applicable.

I have read and understand the information in this contract. I agree to abide by the requirements. I would like to be enrolled in one or more Advanced Placement/Dual Credit/Honors courses.

Course(s) selected: _____

Student's Name

Student's Signature

Date

Parent's Name

Parent's Signature

Date

INDEPENDENT STUDY POLICY

- A syllabus designed collaboratively by the teacher and the student which shows what the student will know and do by the end of the course, including how that will be assessed.
- Requested course content must relate to the Kentucky Core Content/Program of Studies or the students' chosen career.
- Students are to be under the direct supervision of a person certified in the relevant content area.
- Student must complete a final exam or culminating project.
- One writing piece must be submitted to the students' working writing portfolio.
- AP students must take the AP exam to receive the additional quality point.
- Enrollment is limited to juniors and seniors who are on grade level and are in good academic standing.
- Students are limited to one independent study course per year, unless granted an exception by the principal.
- A conference, as arranged by the counseling office, will be held with the student, parent, teacher and a counselor to determine if an independent study course is appropriate.
- All independent study course applications must be submitted through the Guidance Department to the principal for approval. This application will contain a student letter of request outlining the reason for the request signed by the student and the parent/guardian and a course syllabus signed by the teacher offering the course.
- Requests for an independent study course must be submitted no later than 10 days from the beginning of the school year or semester.
- Teachers will be limited to conducting one independent study course per year unless approved by the principal.
- Grades are to be submitted in accordance with established grading periods

DUAL CREDIT OPTIONS

The complete list of Dual Credit Courses offered in-house is listed below. All classes are offered through Midway University unless otherwise noted. Please reference each section in this catalog to see specifics of each class. As dual credit courses are not required courses, please be advised that there are fees associated with these classes that may fall on the students (approximately a \$165 dual credit class fee and textbook fee ranging anywhere from \$50-\$150). Please take these fees in consideration and speak with your counselor and/or your teacher in each particular content area to make your decision. Students must have ACT composite score of 18 or 3.0 GPA/Teacher Recommendation to take dual credit courses. (ENG 101/102 also requires an 18 English subscore; MTH classes also requires an 18 Math subscore.)

AGR100: Contemporary Issues in Agriculture (MuSU)
AGR199: Animal Science (MuSU)
BIO 155/156: Biology
BIO 107/108: Human Anatomy & Physiology (KSU)
BIO 220: Medical Terminology (KSU)
CHEM 170/171: Chemistry
EDU 103: Introduction to Education
ENG 101: English Composition I
ENG 102: English Composition II
ENG 210: Intro to Literature
HIS 102: World Civilization

HIS 140/141: US History
MTH 135: Intermediate Math
MTH 139: Statistics
MTH 140: College Algebra
MTH 220: Calculus I
MUS 167: Music Appreciation
PSC 240: Physics I
PSY 180: Psychology
SOC 120: Sociology
SPA 101: Spanish I (KSU)
SPA 102: Spanish II (KSU)

ALTERNATIVE CREDIT OPTIONS

Additional accelerated courses are available through colleges and also on-line providers such as BAVEL. Any fee attached to such course work is the responsibility of the student. (Fees could range from \$200-\$900.) If you are planning to sign up for one of these options, please see your counselor to obtain an Alternate Credit Option form.

2022-2023 FCHS Career and Technical Education Pathways

| CTE Pathway | Pathway Description | Pathway Best Practice Courses |
|------------------------|--|---|
| Business | | |
| Retail Services | This pathway generally prepares individuals to perform operations associated with retail sales in a variety of settings. Includes instruction in over the counter and other direct sales operations in business settings, basic bookkeeping principles, customer services, team/staff leadership and supervision, floor management, and applicable technical skills. | <p>Required 2 credits from the following:</p> <ul style="list-style-type: none"> -Retail Operations Specialist -Retail Marketing Management <u>OR</u> Marketing Application <p>Choose 1-2 credits from the following:</p> <ul style="list-style-type: none"> -Principles of Entrepreneurship -Marketing Principles -Advertising and Promotion -Accounting and Finance Foundations <u>OR</u> Math Personal Finance -Marketing Education Co-op |
| Marketing | This pathway generally prepares individuals to undertake and manage the process of developing consumer audiences and moving products from producers to consumers. Includes instruction in buyer behavior and dynamics, principle of marketing research, demand analysis, cost-volume and profit relationships, pricing theory, marketing campaign and strategic planning, market segments, advertising methods, sales operations and management, consumer relations, retailing and applications to specific products and markets. | <p>Required 2 credits:</p> <ul style="list-style-type: none"> -Marketing Principles -Marketing Applications <p>Choose 2 credits from the following:</p> <ul style="list-style-type: none"> -Advertising and Promotion -Sports and Event Marketing -Retail Operations Specialist -Principles of Entrepreneurship -Accounting and Finance Foundations -Math Personal Finance -Marketing Education Co-op |
| E-Commerce | This pathway focuses on the creation, execution, transmission, and evaluation of commercial messages in various media intended to promote and sell products, services, and brands; and that prepares individuals to function as advertising assistants, technicians, and managers. Includes instruction in advertising theory; marketing strategy; advertising design and production methods; campaign methods and techniques; media management; related principles of business management; and applicable technical and equipment skills. | <p>Choose 2-3 credits from the following:</p> <ul style="list-style-type: none"> -Digital Literacy -Marketing Principles -Advertising and Promotion <p>Choose 1-2 credits from the following:</p> <ul style="list-style-type: none"> -Principles of Entrepreneurship -Marketing Applications -Retail Operations Specialist -Math Personal Finance |

| | | |
|---|--|---|
| | | <ul style="list-style-type: none"> -Marketing Education Co-op -Business Education Co-op |
| Financial Services | <p>This pathway prepares individuals to perform a wide variety of customer services in banks, insurance agencies, savings and loan companies, and related enterprises. Includes instruction in communications and public relations skills; business equipment operation; and technical skills applicable to the methods and operations of specific financial or insurance services.</p> | <p>Required 2 credits:</p> <ul style="list-style-type: none"> -Financial Services I -Accounting and Finance Foundations <p>Choose 2 credits from the following:</p> <ul style="list-style-type: none"> -Financial Services II -Math Personal Finance -Marketing Principles -Financial Analysis for Managers -Marketing Education Co-op -Business Education Co-op |
| Agriculture | | |
| Animal Science | <p>Animal Science develops basic knowledge and skills pertaining to animal identification, selection, nutrition, reproduction and genetics, health management, and marketing of farm and companion animals commonly produced in Kentucky. The latest production technologies, as well as biotechnological applications, will be included. Leadership development will be provided through the National FFA Organization. Each student will be expected to have a supervised agricultural experience program.</p> | <p>Required 1 credit:</p> <ul style="list-style-type: none"> -Principles of Agricultural Science and Technology <p>Choose 3 credits from the following:</p> <ul style="list-style-type: none"> -Animal Science -Equine Science -Veterinary Science <p>May Substitute for one of the three credits above:</p> <ul style="list-style-type: none"> -Food Science and Technology Agriculture -Agriculture Employability Skills -Agriculture Education Co-op |
| Environmental Science and Natural Resource Systems | <p>This pathway focuses on the studies and activities relating to the natural environment and its conservation, use, and improvement. The basic principles of environmental science and natural resource management are the foundational concepts of this pathway. Subjects addressed include air, soil, water, wildlife, plants, and sources of energy. Instruction related to using these resources economically as well as recreationally is also included.</p> | <p>Required 3 credits:</p> <ul style="list-style-type: none"> -Principles of Agricultural Science and Technology -Wildlife Resources -Introduction to Greenhouse and Crop Production <p>Choose 1 credit from the following:</p> <ul style="list-style-type: none"> -Agriculture Employability Skills -Agricultural Education Co-op -Greenhouse Technology |

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| Horticulture and Plant Science Systems | <p>This pathway focuses on the scientific principles that underlie the breeding, cultivation, and production of agricultural plants, and the production, processing, and distribution of agricultural plant products. Includes instruction in the plant sciences, crop cultivation and production, and agricultural and food products processing.</p> | <p>Required 1 credit: -Principles of Agricultural Science and Technology Choose 2-3 credits from the following: -Introduction to Greenhouse and Crop Production -Floriculture and Floral Design -Greenhouse Technology May Substitute for one of the three credits above: -Agriculture Employability Skills -Agricultural Education Co-op</p> |
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JROTC

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| Air Force JROTC | <p>This pathway introduces students to the theory and principles of aerospace science and leadership education. Air Force JROTC provides education in aviation history, the science of flight, cultural and world studies, exploration of space, and management principles. Air Force JROTC engages students in the practice of civic responsibility, communication skills, critical thinking skills, teamwork, health and wellness, financial literacy, and the exploration of career opportunities. Air Force JROTC provides STEM and leadership elective opportunities to reinforce curriculum learning outcomes. Programs are offered as adjuncts to regular high school instructional programs.</p> | <p>Required 3 credits: -Air Force JROTC 1 -Air Force JROTC 2 -Air Force JROTC 3 Choose one credit from the following: -Air Force JROTC 4 -Air Force JROTC Leadership</p> |
|------------------------|--|--|

Transportation

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|---|--|---|
| Automotive Maintenance and Light Repair Technician | <p>This is a program that prepares individuals to apply technical knowledge and skills to repair, service, and maintain all types of automobiles. It includes instruction in brake systems, electrical systems, engine performance, engine repair, suspension and steering, automatic and manual transmissions and drivetrains, and heating and air conditioning systems</p> | <p>Complete 4 credits from the following: -Auto I: AMLR-A -Auto II: AMLR-B -Auto III: AMLR-C -Auto IV: AMLR-D May enroll in the following credit senior year once Auto 1-3 credits have been earned and is enrolled in Auto IV: -Co-op Auto</p> |
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Manufacturing (Welding)

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| Welder Entry-Level | <p>An entry level welder demonstrates the ability to assist lead welders in the fabrication of steel and metal structures. Students must be adept at performing basic welding functions and calculating dimensions as well as operating power equipment, grinders and other related tools. Student must be proficient in reading and interpreting basic blueprints and following work procedure specifications (WPS).</p> | <p>Complete 4 credits from the following:</p> <ul style="list-style-type: none"> -Welding I: Oxy Fuel -Welding II: SMAW -Welding III: Maintenance -Welding IV: GMAW <p>May enroll in the following if student has completed 2 courses on the pathway and is enrolled in third course:</p> <ul style="list-style-type: none"> -Co-op Welding |
| Welding Engineer | <p>This pathway provides the opportunity to blend Career and Technical Education (CTE) courses with Engineering courses to help students apply technical skills along with Science, Technology, Engineering, and Math (STEM) skills to solve real-world problems. Welding Engineers design and develop metal components for products for the pipeline, automotive, boiler making, ship building, aircraft and mobile home industry. Welding Engineers must have knowledge of cutting processes and gas metal arc welding procedures for efficient development of these industrial processes.</p> | <p>Complete the following 6 credits:</p> <ul style="list-style-type: none"> -Engineering I -Engineering II -Welding I: Oxy Fuel -Welding II-SMAW -Welding IV- GMAW <p>May take the following course but not required for pathway:</p> <ul style="list-style-type: none"> -Welding III- Maintenance |
| <p>Construction (Carpentry)</p> | | |
| Residential Carpenter Assistant | <p>This pathway prepares individuals to apply technical knowledge and skills to layout, cut, fabricate, erect, install, and repair wooden structures and fixtures, using hand and power tools. The pathway includes instruction in technical mathematics, framing, construction materials and selection, job estimating, blueprint reading, foundations and roughing-in, finish carpentry techniques, and applicable codes and standards.</p> | <p>Complete 4 credits from the following:</p> <ul style="list-style-type: none"> -Carpentry I: Intro to construction technology -Carpentry II: Floor and Wall Framing -Carpentry III: Ceiling and Roof Framing -Carpentry IV: Exterior and Interior Finishing <p>May enroll in the following course if student has completed 2 courses on the pathway and is enrolled in third course:</p> <ul style="list-style-type: none"> -Carpentry Co-op |
| Construction Architectural Engineering | <p>This pathway provides the opportunity to blend Career and Technical Education (CTE) courses with engineering courses to help students apply technical skills along with Science, Technology, Engineering, and Math (STEM) skills to solve real-world problems. This pathway prepares individuals to apply engineering principles and technical skills in support of architects,</p> | <p>Complete the following 5 credits:</p> <ul style="list-style-type: none"> -Engineering I -Civil Engineering -Carpentry 1 -Carpentry 2 |

engineers and planners engaged in designing and developing buildings, urban complexes, and related systems. Includes instruction in design testing procedures, building site analysis, model building and computer graphics, structural systems testing, analysis of prototype mechanical and interior systems, report preparation, basic construction and structural design, architectural rendering, computer-aided drafting (CAD), layout and designs, architectural blueprint interpretation, building materials, and basic structural wiring diagramming.

-Carpentry 3

Health Science

Allied Health

This pathway is a general, introductory, undifferentiated, or joint pathway in health services occupations that prepares individuals for either entry into specialized training programs or for a variety of concentrations in the allied health area. Includes instruction in the basic sciences, research and clinical procedures, and aspects of the subject matter related to various health occupations.

Required 3 credits:
 -Principles of Health Science
 -Emergency procedures for healthcare professionals (0.5 credit) **AND** Medical Terminology DC (0.5 credit OR 1 credit)
 -Allied Health Core Skills
Choose 1 credit from the following:
 -BIO 107/108 DC-Human Anatomy and Physiology
 -Allied Health Internship

Pre-Nursing

This pathway prepares individuals for admission to a professional program in nursing. This pathway focuses on caring for residents in a long-term care facility.

Required 3 credits:
 -Principles of Health Science
 -Emergency procedures for healthcare professionals (0.5 credit) **AND** Medical Terminology DC (0.5 credit OR 1 credit)
 -Medicaid Nurse Aide
Choose 1 credit from the following:
 -BIO 107/108 DC-Human Anatomy and Physiology
 -Nursing Co-op
 -Allied Health Internship

Emergency Medical Technician

This pathway prepares individuals, under the remote supervision of physicians, to recognize, assess, and manage medical emergencies in prehospital settings and to supervise ambulance personnel. Includes instruction in basic, intermediate, and advanced EMT procedures; emergency surgical procedures; medical triage; rescue operations; crisis scene management and personnel supervision; equipment operation and maintenance; patient stabilization, monitoring, and care; drug administration; identification and preliminary diagnosis of diseases and injuries; communication and computer operations; basic anatomy,

Required credits:
 -Principles of Health Science
 -Emergency procedures for healthcare professionals (0.5 credit) **AND** Medical Terminology DC (0.5 credit OR 1 credit)
 -Emergency Medical Technician (EMT) &

| | | |
|-------------------------|---|--|
| | physiology, pathology, and toxicology; and professional standards and regulations. | Emergency Medical Services (EMS) May take the following courses: -BIO 107/108 DC-Human Anatomy and Physiology -Allied Health Internship |
| Dental Assisting | This pathway prepares individuals to provide patient care, take dental radiographs (x-ray photographs), prepare patients and equipment for dental procedures, and discharge office administrative functions under the supervision of dentists and dental hygienists. It includes instruction in medical recordkeeping, general office duties, reception and patient intake, scheduling, equipment maintenance and sterilization, basic radiography, pre- and post-operative patient care and instruction, chairside assisting, taking tooth and mouth impressions, and supervised practice. | Required 3 credits: -Principles of Health Science -Emergency procedures for healthcare professionals (0.5 credit) AND Medical Terminology DC (0.5 credit) OR 1 credit) -Dental Assistant Internship Choose 1 credit from the following: -BIO 107/108 DC-Human Anatomy and Physiology -Allied Health Core Skills -Allied Health Internship |

Computer Science

| | | |
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| Web Development/ Administration | The Web Development/Administration pathway involves creating, designing, and producing interactive multimedia products and services. This will include development of digitally generated or computer-enhanced media, and the adherence to web standards, as used in business, training, communications and marketing. Organizations of all types and sizes use digital media, web pages, and websites to communicate with existing and potential customers, to track transactions, and to collaborate with colleagues. This pathway will prepare students to enter the workforce ready to participate as leaders in a broad range of careers and further their education. | Complete 3 credits: -Web Page Development (Level I) -Computer Hardware and Software Maintenance -Special Topics Web Development Choose at least 1 of the following credits: -Digital Literacy -Help Desk Operations -Computer Science Co-op |
| Information Support and Services | The Information Support and Services pathway focuses on the design of computing systems. The courses include instruction in the principles of computer hardware and software components, algorithms, databases, and telecommunications. | Complete the following 3 credits: -Digital Literacy -Computer Hardware and Software Maintenance -Help Desk Operations Choose 1 of the following: -Computer Science Co-op |

Engineering

| | | |
|--------------------------|--|--|
| Civil Engineering | This pathway generally prepares individuals to apply mathematical and scientific principles to the design, | Complete the following 4 credits: |
|--------------------------|--|--|

| | | |
|--------------------------------------|---|--|
| | <p>development and operational evaluation of structural, load bearing, material moving, transportation, water resource, and material control systems; and environmental safety measures. Civil engineers design, build, supervise, operate, and maintain construction projects and systems in the public and private sector, including roads, buildings, airports, tunnels, dams, bridges, and systems for water supply and sewage treatment.</p> | <ul style="list-style-type: none"> -Engineering I -Engineering II -Civil Engineering -Engineering Co-op |
| <p>Mechanical Engineering</p> | <p>This pathway prepares individuals to apply mathematical and scientific principles to the design, development and operational evaluation of physical systems used in manufacturing and end product systems for specific uses including machine tools, jigs and other manufacturing equipment; stationary power units and appliances; engines; self-propelled vehicles; housings and containers; hydraulic and electric systems for controlling movement; and the integration of computers and remote control with operating systems. Mechanical Engineers design, develop, build, and test mechanical and thermal sensors and devices including tools, engines, and machines.</p> | <p>Complete the following 4 credits:</p> <ul style="list-style-type: none"> -Engineering I -Engineering II -Mechanical Engineering -Engineering Co-op |

AGRICULTURE

COURSE TITLE: PRINCIPLES OF AGRI-SCIENCE AND TECHNOLOGY

COURSE NO: 030715

LEVELS: 9, 10

CREDIT: 1

This course provides instruction in the foundations of the various segments of the agricultural industry. Agricultural career opportunities will be emphasized. Animal science, plant and land science, and agricultural mechanics skills will be the focus of the curriculum. The selection and planning of a supervised agricultural experience program and related record keeping will be presented. Leadership development will be provided through FFA. Students will receive personal guidance and counseling with preparatory program selection. Each student will be expected to have an agricultural experience program.

COURSE TITLE: AGRICULTURE EMPLOYABILITY SKILLS

COURSE NO: 010121

LEVELS: 12

CREDIT: 1

Agriculture Employability Skills provides opportunities to develop skills in: job searching, preparing resumes, writing letters of application, job interview, attitude, communicating effectively, human relations and accepting responsibilities. Content may be enhanced with appropriate computer applications. Leadership Development will be provided through FFA. Each student will be expected to have a supervised agricultural experience program.

COURSE TITLE: ANIMAL SCIENCE

COURSE NO: 020501

LEVELS: 10, 11, 12

CREDIT: 1

Animal science develops basic knowledge and skills pertaining to livestock identification, selection, nutrition, reproduction and genetics, health management, and marketing of one or more species of farm animals. The latest biotechnological applications will be included. The content may be enhanced with appropriate computer applications. Leadership development will be provided through FFA. Each student will be expected to have a supervised agricultural experience program.

COURSE TITLE: FOOD SCIENCE AND TECHNOLOGY

COURSE NO: 010702

LEVELS: 10, 11, 12

CREDIT: 1

Discover the science behind your favorite foods. Food Technology introduces the issues of food production, nutrition, food chemistry and the development of food products in a global society. The government regulations regarding foods and the exploration of career opportunities will also be covered. Content may be enhanced with hands-on lab activities.

COURSE TITLE: EQUINE SCIENCE

COURSE NO: 020510

LEVELS: 10, 11, 12

CREDIT: 1

Equine science develops knowledge and skill pertaining to breed identification and selection, anatomy, physiology, nutrition, genetics and reproductive management, training principles, grooming, health disease, parasite control and sanitation practices. Content may be enhanced with appropriate computer applications. Leadership development will be provided through FFA. Each student will be expected to have an agricultural experience program.

COURSE TITLE: VETERINARY SCIENCE

COURSE NO: 020511

LEVELS: 10, 11, 12

CREDIT: 1

This course introduces students to the field of veterinary science. Major topics include veterinary terminology, safety, sanitation, anatomy/physiology, clinical exams, hospital procedures, parasitology, laboratory techniques, nutrition, diseases, office management, and animal management. Careers are also to be explored.

COURSE TITLE: FLORICULTURE AND FLORAL DESIGN

COURSE NO: 010621

LEVELS: 9, 10, 11, 12

CREDIT: 1

Floriculture and floral design provides instruction to develop floral design techniques using silk, dried, and fresh flowers. Students will learn operation and management techniques of a florist business as well as identification, production and cultural maintenance practices of plants used in floral design and interior landscaping. Content may be enhanced by utilizing appropriate technology. Leadership development will

be provided through FFA. **Starting in the 2019-2020 school year, this course will also fulfill the Fine Arts credit for graduation.**

COURSE TITLE: WILDLIFE RESOURCES

COURSE NO: 030611 **LEVELS:** 9, 10, 11, 12 **CREDIT:** 1

Develops an awareness of wildlife industry resources. The course includes: a study of ecology and ecosystems, wildlife habitat, population dynamics, management techniques that deal with wildlife in all areas and the regulations that effect the wildlife industry. Content may be enhanced with appropriate applied scientific laboratory activities and computer applications. Leadership development will be provided through FFA. Each student will be expected to have a supervised agricultural experience program.

COURSE TITLE: GREENHOUSE TECHNOLOGY

COURSE NO: 010641 **LEVELS:** 11, 12 **CREDIT:** 1

Greenhouse technology provides instruction in greenhouse structures and greenhouse environment regulations. Plant growth and development and propagation are included as well as production and maintenance of bedding and container produced plants. Fundamental principles of vegetable production and commercial production of vegetable crops may be included. Content may be enhanced with appropriate technology. Leadership development will be provided through FFA. Each student will be expected to have a supervised agricultural experience program.

COURSE TITLE: INTRODUCTION TO GREENHOUSE AND CROP PRODUCTION

COURSE NO: 010611 **LEVELS:** 10, 11, 12 **CREDIT:** 1

PREREQUISITE: Completion of Greenhouse Technology

Introduction to Greenhouse and Crop Production develops basic scientific knowledge and skills pertaining to management of soil and its effects on human and animal food and fiber production, the environment, and meeting basic needs of life. The relationship of soil to plant growth and horticulture will be emphasized. Plant anatomy, reproduction, growth, health, and current biotechnological advances will be included. Leadership development will be provided through FFA. Each student will be expected to have a supervised agricultural experience program.

COURSE TITLE: AGRICULTURE MATH

COURSE NO: 030708 **LEVELS:** 11, 12 **CREDIT:** 1

This course provides an introduction to agriculture math. Course material will include: number properties and operations, measurement, geometry, data analysis and probability, algebraic thinking, personal development, employee and employer responsibilities, records, files, purchasing materials, stocking, selling and business account procedures. Leadership development will be provided through FFA. Each student will be expected to have a supervised agricultural experience program.

COURSE TITLE: AGR199MSUDC - CONTEMPORARY ISSUES IN AGRICULTURE – DUAL CREDIT

COURSE NO: 030715DMSU **LEVELS:** 12 **CREDIT:** .5 **College:** 3 hours

PREREQUISITES: At least two credits of agriculture classes

FEES: ALL STUDENTS ARE REPSONSIBLE FOR THE DUAL CREDIT FEE AND TEXTBOOK.

AGR 199 is the introductory agriculture class at Murray State University that all college agriculture freshmen are strongly encouraged to take. This class covers all aspects of the issues that are currently facing American agriculture. AGR 199 is a dual credit class in which the students will earn a ½ credit here at FCHS (Ag Communications) and earn 3 hours of college credit at MSU. AGR 199 is class that is transferable to any other college or university in the state of Kentucky. Course class work involves tests, midterm and final tests, quizzes and papers.

COURSE TITLE: AGR100MSUDC- ANIMAL SCIENCE - DUAL CREDIT

COURSE NO: 020501DMSU **LEVELS:** 12 **CREDIT:** .5 **College:** 3 hours

PREREQUISITES: At least two credits of agriculture classes

FEES: ALL STUDENTS ARE REPSONSIBLE FOR THE DUAL CREDIT FEE AND TEXTBOOK.

AGR 100 is the introductory animal science class at Murray State. Any student who is interested in pursuing a career in small or large animal science, agriculture education, agriculture production, etc. is strongly encouraged to take this class while in college. AGR 100 is a dual credit class in which the students will earn a ½ credit here at FCHS (Advanced Animal Science) and earn 3 hours of college credit at MSU. AGR 100 is class that is transferable

to any other college or university in the state of Kentucky. Course class work involves tests, midterm and final tests, quizzes and papers.

COURSE TITLE: AGRICULTURE EDUCATION CO-OP

COURSE NO: SEE BELOW

LEVELS: 12

CREDIT(S): 1-3

1hr: 030790CO1

2hrs: 030790CO2

3hrs: 030790CO3

PREREQUISITES: At least two credits of agriculture classes and enrolled in 3rd. Teacher Approval.

BUSINESS & MARKETING EDUCATION

COURSE TITLE: ACCOUNTING AND FINANCE FOUNDATIONS

COURSE NO: 060122

LEVELS: 9, 10, 11, 12

CREDIT: 1

This course will provide an introduction to both areas of accounting and finance. Topics will include banking, credit, financial literacy, career exploration, spreadsheet usage, and technical writing. The accounting principles taught in this course are based on a double-entry system and include preparing bank reconciliations, payroll taxes, and financial statements. Detailed career exploration in the various fields of accounting will be available. Technical writing will be provided through IPAC business plan curriculum and exploration of case studies. Leadership development will be provided through DECA and competitive events.

COURSE TITLE: ADVERTISING AND PROMOTION

COURSE NO: 081511

LEVELS: 9, 10, 11, 12

CREDIT: 1

This course is designed to provide students with a realistic “hands on” application of techniques used in advertising and promotion of goods and services. Students use typical media software and media equipment while being exposed to all forms of media (including digital, print, internet, radio and television) methods, budgets and evaluations used by industry. Leadership development will be provided through DECA activities and competitive events.

COURSE TITLE: DIGITAL LITERACY

COURSE NO: 060112

LEVELS: 9, 10, 11, 12

CREDIT: 1

This course is designed to provide students with entry-level experience with practical applications through “hands on” instruction. The student will become familiar with the use of the computer as a tool for work, personal application, computer related careers, and computer technology. Course content will also include understanding of hardware, software, operating systems, and care/operations. Correct keyboarding techniques are applied. Leadership development will be provided through DECA activities and competitive events.

COURSE TITLE: PRINCIPLES OF ENTREPRENEURSHIP

COURSE NO: 080310

LEVELS: 9, 10, 11, 12

CREDIT: 1

SUGGESTED PREREQUISITE: Marketing Principles

Principles of Entrepreneurship (Standard) introduces students to a wide array of entrepreneurial concepts and skills, including the role of entrepreneurship in our economy, entrepreneurial discovery processes, ideation, and preliminary start-up venture planning. Students also develop an appreciation for marketing’s pivotal role in the development and success of a new business. They become acquainted with channel management, pricing, product/service management, and promotion. Students conduct thorough market planning for their ventures: selecting target markets; conducting market, SWOT, and competitive analyses; forecasting sales; setting marketing goals and objectives; selecting marketing metrics; and setting a marketing budget. The capstone activity in the course is the development of detailed marketing plans for students’ startup businesses. Throughout the course, students are presented ethical dilemmas and problem-solving situations for which they must apply academic and critical-thinking skills. Leadership development will be provided through DECA and competitive events.

COURSE TITLE: SPORTS AND EVENT MARKETING

COURSE NO: 081121

LEVELS: 9, 10, 11, 12

CREDIT: 1

This course is designed to provide training of skills necessary for positions in the Sports and Entertainment field and expose students to jobs at the mid-management, specialist, or supervisory level. Instruction includes marketing skills, skills and techniques of advertising and promotions, psychology of selling, and management associated with the marketing of leisure-time activities and events. Students in this course will be involved in hands-on learning experiences and integrated projects. Leadership development will be provided through DECA activities and competitive events. This class may be team taught between the physical education department and business department to include units on officiating, coaching and careers in the sports world.

COURSE TITLE: FINANCIAL SERVICES I

COURSE NO: 060311

LEVELS: 10, 11, 12

CREDIT: 1

PREREQUISITES: Business Credit and Instructor's Permission. (Application Process)

This course is an intensive study of economical and financial procedures and concepts. It also involves a student financial center that provides application of banking and financial concepts. The students develop and manage the financial center through our sponsor, Commonwealth Credit Union. Credit Union employees work as consultants with students on site. Students in this course will be involved in hands-on learning experiences and integrated projects. Leadership development will be provided through DECA and competitive events.

COURSE TITLE: FINANCIAL SERVICES II

COURSE NO: 060351

LEVELS: 11, 12

CREDIT: 1

PREREQUISITES: Financial Services I and Instructor's Permission.

This course is a continuation of FINANCIAL SERVICES I and is recommended for students pursuing a financial and banking career. Students will continue to learn and practice financial activities associated with the operation of a credit union. Students in this course will be involved in hands-on learning experiences and integrated projects. Leadership development will be provided through DECA and competitive events.

COURSE TITLE: FINANCIAL ANALYSIS FOR MANAGERS (FINANCIAL SERVICES III)

COURSE NO: 060399

LEVELS: 12

CREDIT: 1

PREREQUISITES: Financial Services I, II and Instructor's Permission.

This course is a continuation of FINANCIAL SERVICES I and II. It is recommended for students pursuing a financial and banking career. Students will continue to learn and practice financial activities associated with the operation of a credit union. Students in this course will be involved in hands-on learning experiences and integrated projects. Leadership development will be provided through DECA and competitive events

COURSE TITLE: MARKETING PRINCIPLES

COURSE NO: 080716

LEVELS: 9, 10, 11, 12

CREDIT: 1

This course will prepare students to work in the school store and prepare for DECA competitive events. This course provides a basic foundation for study in marketing. Students study economic functions at work in the marketplace, marketing functions including purchasing, pricing, and distribution functions. This course is based on the business and marketing core that includes communications skills, economics, financial analysis, and promotion. Both marketing and employment skills learned will improve and increase the chance of successful transition into the world of work. Students in this course will be involved in hands-on learning experiences and integrated projects. Leadership development will be provided through DECA activities and competitive events.

COURSE TITLE: RETAIL OPERATIONS SPECIALIST (School Store Year 1)

COURSE NO: 081411

LEVELS: 10, 11, 12

CREDIT: 1

PREREQUISITES: Instructor's Permission.

This course is designed to provide an overview of the marketing responsibilities of individuals employed in the retail industry. This course is based on the business and marketing core that includes communication skills, operations, distribution, marketing-information management, pricing, product/service management, promotion and selling. The Kentucky Occupational Retail Services Skill Standards are integrated into this course giving students the opportunity to receive Retail Skill Standards Certification. Students in this course will be involved in hands-on learning experiences and integrated projects such as operating the school store. Leadership development will be provided through DECA.

COURSE TITLE: RETAIL MARKETING MANAGEMENT (School Store – Year 2)

COURSE NO: 081431

LEVELS: 11, 12

CREDIT: 1

Prerequisites: Retail Marketing I; Instructor's Permission

This course is designed as a continuation of Retail Marketing and provides an in-depth study of merchandising techniques and management skills. This course is based on the business and marketing core that includes communication skills, economics, operations, professional development, promotion, selling,

distribution, and product/service management. Leadership development will be provided through DECA and competitive events.

COURSE TITLE: MARKETING APPLICATIONS (School Store – Year 3)

COURSE NO: 080717

LEVELS: 12

CREDIT: 1

Prerequisites: Retail Marketing I AND Retail Marketing Management; Instructor's Permission

This course is designed to enhance marketing skills developed in the marketing prerequisite course and to learn advanced marketing skills in such areas as advertising, customer service, supervision, and employee/employer relations for a wide range of marketing careers. This course is based on the business and marketing core that includes communication skills, emotional intelligence, economics, marketing, operations, promotion, marketing-information management and financial analysis. Students involved in this course will operate the school store ~ Flyer Connection. Students in this course may also wish to earn additional credit through marketing/retail on-the-job training (co-op). Students in this course will be involved in hands-on learning experiences and integrated projects. Leadership development will be provided through DECA and competitive events.

COURSE TITLE: BUSINESS EDUCATION CO-OP

COURSE NO: SEE BELOW

LEVEL: 12

CREDIT(S): 1-3

1hr: 060107CO1

2hrs: 060107CO2

3hrs: 060107CO3

Co-Op for students who are on track to be a completer in a Business Education pathway.

****MUST file application with Mr. McDonald by March 31. Students are selected through application process.***

COURSE TITLE: MARKETING EDUCATION CO-OP

COURSE NO: SEE BELOW

LEVEL: 12

CREDIT(S): 1-3

1hr: 080707CO1

2hrs: 080707CO2

3hrs: 080707CO3

Co-Op for students who are on track to be a completer in a Marketing pathway. Marketing Education pathways Financial Services and Marketing.

****MUST file application with Mr. McDonald by March 31. Students are selected through application process.***

COURSE TITLE: EXPERIENCE BASED WORK (WBL)

COURSE NO: SEE BELOW

LEVELS: 12

CREDIT: 1-3

1hr: 901005CO1

2hrs: 901005CO2

3hrs: 901005CO3

PREREQUISITE: PERMISSION OF INSTRUCTOR

A cooperative educational placement with a local business, school, or program which, when taken with a corresponding career cluster class, serves to further illustrate classroom goals. There will be an application process to enroll in this class. May or may not be a paid position.

ENGLISH

ENGLISH I COURSES:

ENGLISH I.....1 CREDIT

ENGLISH I HONORS.....1 CREDIT

ALL FRESHMEN MUST CHOOSE ONE OF THE ABOVE COURSES TO FULFILL THE ENGLISH I REQUIREMENT FOR GRADUATION.

COURSE TITLE: ENGLISH I

COURSE NO: 230107

LEVELS: 9

CREDIT: 1

English I students will read a variety of literature and nonfiction material that focuses on reaching a deeper understanding of ourselves and life's lessons through literature. An emphasis will be placed on analytical reading and writing skills. Sentence structure, paragraph development, basic grammar, and writing skills will be especially stressed through literary analysis and argument. English I includes vocabulary study based on the texts in each unit. In order to be successful in this class, students must participate in class and work to develop/strengthen their reading and writing skills.

COURSE TITLE: ENGLISH I HONORS

COURSE NO: 230107H

LEVELS: 9

CREDIT: 1

PREREQUISITES: SUCCESSFUL COMPLETION OF 8th GRADE ENGLISH

English I students will read a variety of literature and nonfiction material that focuses on reaching a deeper understanding of ourselves and life's lessons through literature. Students will develop discussion skills through activities like Socratic Seminar. An emphasis will be placed on analytical reading and writing skills. Sentence structure, paragraph development, basic grammar, and writing skills will be especially stressed through literary analysis and argument. English I Honors includes vocabulary study based on the texts in each unit. In order to be successful in this class, students must participate in class and work to develop/strengthen their reading and writing skills.

Honors English I students will be required to complete independent reading and writing projects outside of class. The Honors reading curriculum consists of reading more challenging texts. Students who enroll in Honors English I are on the path to take Advanced Placement English Language and/or Advanced Placement English Literature as upperclassmen so this class will begin the process of preparing a student to be successful on the AP exam.

ENGLISH II COURSES:

ENGLISH II.....1 CREDIT

ENGLISH II HONORS.....1 CREDIT

ALL SOPHOMORES MUST CHOOSE ONE OF THE ABOVE COURSES TO FULFILL THE ENGLISH II REQUIREMENT FOR GRADUATION.

COURSE TITLE: ENGLISH II

COURSE NO: 230110

LEVELS: 10

CREDIT: 1

This course features an emphasis on culture and its effects on the individual. Students will read a variety of genres and participate in close analysis of the text. Writing skills will focus on essay organization and structure with the integration of textual references and analysis/commentary. Grammar and vocabulary study will be part of the curriculum. Students will also participate in ACT preparation activities.

COURSE TITLE: ENGLISH II HONORS

PREREQUISITES: SUCCESSFUL COMPLETION OF ENGLISH I or ENGLISH I Honors

COURSE NO: 230110H

LEVELS: 10

CREDIT: 1

This course features an emphasis on culture and its effects on the individual. Students will read a variety of genres and participate in close analysis of the text. Writing skills will focus on essay organization and structure with the integration of textual references and analysis/commentary. Grammar and vocabulary study will be part of the curriculum. Students will also participate in ACT preparation activities.

Students will read at least one non-fiction work and will compose a small research paper with proper MLA citations. Honors English II students will be required to complete independent reading and writing projects throughout the

year and will have more writing assignments throughout the course of the year. Students will continue to prepare for the AP English Language and/or Literature class and exam.

ENGLISH III COURSES:

ENGLISH III.....1 CREDIT

AP ENGLISH III – Language & Composition.....1 CREDIT

ALL JUNIORS MUST CHOOSE ONE OF THE ABOVE COURSES TO FULFILL THE ENGLISH III REQUIREMENT FOR GRADUATION.

COURSE TITLE: ENGLISH III

COURSE NO: 230113

LEVELS: 11

CREDIT: 1

English III focuses on reading, responding to, and analyzing works of American literature from pre-Colonial to contemporary times, including poetry, short stories, novels, drama, and nonfiction. The literary works will provide opportunities for analytical writing responses, discussion, and creative projects. Students will review the grammar, usage, and mechanics skills assessed on standardized tests. Students will also study vocabulary in the context of their readings and will have a quiz each unit.

COURSE TITLE: AP ENGLISH III – LANGUAGE & COMPOSITION

COURSE NO: 230166

LEVELS: 11

CREDIT: 1

PREREQUISITES: SUCCESSFUL COMPLETION OF ENGLISH II or ENGLISH II Honors

FEES: ALL STUDENTS ARE ENCOURAGED TO TAKE THE AP EXAM. ESTIMATED COST OF THE AP EXAM IS \$100.

This course focuses on an in-depth study of rhetoric, argument, and developing a student’s analytical writing ability. The course explores American literature and nonfiction works. Students are also expected to complete independent reading and writing assignments outside of class. The course is modeled after a college level curriculum. Students should expect to do college level work and adhere to college level expectations. Students will be responsible for completing summer assignments consisting of reading and/or writing projects.

ENGLISH IV COURSES:

PRACTICAL ENGLISH IV.....1 CREDIT

ENGLISH IV.....1 CREDIT

AP ENGLISH IV – Literature and Composition.....1 CREDIT

ENG 101/102 - Dual Credit.....1 CREDIT

ENG 210 – Dual Credit.....1 CREDIT

ALL SENIORS MUST CHOOSE ONE OF THE ABOVE COURSES TO FULFILL THE ENGLISH GRADUATION REQUIREMENT.

COURSE TITLE: PRACTICAL ENGLISH IV

COURSE NO: 530400

LEVELS: 12

CREDIT: 1

Practical English IV is a course in which students explore the disciplinary literacies needed to become a professional in a technical or vocational line of work. Students will apply skills learned in their foundation English classes to practical applications in technology, construction, business and a variety of other occupations. Students will learn about creating a resume, cover letter, how to interview successfully, and develop “soft skills” like communication, teamwork and presentation, needed for the workforce. Students will read a variety of nonfiction texts and work on improving skills necessary to be ready to join the workforce or to attend a vocational/technical school after high school. Students will write in a variety of formats and modes common to the workplace: emails, memos, and problem analysis will be the focus. Practical English would give students who are interested in entering the workforce or technical school after high school graduation an advantage by being career ready.

COURSE TITLE: ENGLISH IV

COURSE NO: 230116

LEVELS: 12

CREDIT: 1

English IV analyzes and evaluates a variety of British and world literature texts. Writing skills will focus on developing research skills with the completion of a research paper, analysis/commentary in a variety of forms, as personal essay writing. Students will sometimes complete projects or writing tasks outside of class. Students will

learn new vocabulary from the course texts and be assessed on the terms. Students are expected to be active participants in their learning and complete assignments to develop their reading and writing skills.

COURSE TITLE: AP ENGLISH IV – LITERATURE & COMPOSITION

COURSE NO: 230167

LEVELS: 12

CREDIT: 1

PREREQUISITES: ENGLISH III or ENGLISH III AP

FEES: ALL STUDENTS ARE ENCOURAGED TO TAKE THE AP EXAM. ESTIMATED COST OF THE AP EXAM IS \$100.

Emphasis will be on comprehensive writing in conjunction with an in-depth study of various genres and time periods of literature. Reading material is considered college level and may be mature in content. Students are expected to complete independent reading and writing assignments outside of class. The course is modeled after a college level curriculum. Students should expect to do college level work and adhere to college level expectations. Students will be responsible for completing summer assignments consisting of reading and/or writing projects.

COURSE TITLE: ENG101MIDDC- ENG 101 COLLEGE WRITING I – DUAL CREDIT

COURSE NO:800015QCC3

LEVELS: 12

CREDIT: ½

PREREQUISITES: ENGLISH III or ENGLISH III AP AND has achieved an 18 or higher on the ACT English subscore as well as an 18 composite score on the ACT.

FEES: ALL STUDENTS ARE RESPONSIBLE FOR THE DUAL CREDIT FEE AND TEXTBOOK.

Introduction to university-level reading and writing practices: learning to compose for university audiences, to read challenging texts actively, to make interpretations and claims, and to collaborate with others. Must earn a “C” in order to receive college credit and to move on to English 102.

COURSE TITLE: ENG102MIDDC- ENG 102 COLLEGE WRITING II – DUAL CREDIT

COURSE NO:800015QCC4

LEVELS: 12

CREDIT: ½

PREREQUISITES: SUCCESSFUL completion of ENGLISH 101 from Fall Semester

A continuation of ENG 101, with a special focus on acquiring the skills and knowledge to write effective research papers across the curriculum. Completion with a grade of “C” or higher required to earn college credit.

COURSE TITLE: ENG210MIDDC- ENG 210 INTRO TO LITERATURE – DUAL CREDIT

COURSE NO: 800011WCC3

LEVELS: 12

CREDIT: 1

PREREQUISITES: ENGLISH III or ENGLISH III AP AND has achieved an 18 composite score on the ACT.

The AP English IV/Dual Credit ENG 210 class is a unique opportunity for students to earn three hours of college credit through Midway University and prepare to take the Advanced Placement English Literature exam in May and earn additional college credit with a qualifying score.

This class will include an in-depth study of a variety of fiction genres as well as provide students with many opportunities to hone their analytical writing skills. We will focus not only on understanding the work and the deeper meaning but also the writing style of the author. Students are expected to read the assigned material and come to class ready to work with the content. Students will have independent reading and writing projects as well as long term assignments connected to our different units of study. Students are responsible for paying the dual credit fee and the AP exam fee. There may be financial assistance available for students who need help paying for the exam. The hours earned at Midway University should transfer to most in state public institutions as long as the student earns at least a “C” in the course.

ENGLISH ELECTIVES

COURSE TITLE: READING DEVELOP/ENJOYMENT

COURSE NO: 231211

LEVELS: 9, 10, 11, 12

CREDIT: 1

A course designed to encourage students to read for pleasure and to become lifelong readers and learners. Students would not be able to read textbooks or other school-related workbooks. Students will complete a variety of assignments in and out of class.

COURSE TITLE: THEATRE BEGINNING C1 (DRAMA)

COURSE NO: 500513C3

LEVELS: 10, 11, 12

CREDIT: 1

This course is a dual-purpose class designed to teach the history of drama as well as the fundamentals of analysis and production of dramatic literature. It will introduce students to the theater by providing them with opportunities to read and analyze plays, perform individually and in scenes, learn about jobs in the theater, and write original scenes and monologues.

COURSE TITLE: MASS MEDIA COMMUNICATIONS (JOURNALISM & BROADCAST)

COURSE NO: 239101

LEVELS: 11, 12

CREDIT: 1

PREREQUISITES: PERMISSION OF INSTRUCTOR

This course is designed to teach the student an introduction to mass communication (journalism and broadcast journalism). Students study the importance of mass media in modern life at the local, national, and global levels. Students recognize the impact of mass media messages through news, entertainment, and persuasion on contemporary society. Students analyze and evaluate the history, governance, and ethical issues of mass media to gain a perspective of how influential mass communication has become. They use media literacy and communications skills to become writers, speakers, broadcasters, or media producers who address content issues and the impact of mass communication. Students will be in charge of producing the online school newspaper, as well as the daily school news broadcasting program.

COURSE TITLE: DIGITAL STORYTELLING

COURSE NO: 230515

LEVELS: 10, 11, 12

CREDIT: 1

In this class, students will read a variety of texts and view the corresponding films in order to analyze the two genres. Students will learn to view films as an art form and as a means of communication beyond their entertainment purpose. They are taught to “read” a film, analyzing its narrative structure, genre conventions, subtext, technical and artistic factors, and purpose. The course explores how character development, plot, narrative, symbols, and language are translated from literary texts to film, and considers the limitations of film adaptation. In addition, students examine how films often reflect the culture and times in which they are made, and conversely, how motion pictures sometimes help shape attitudes and values in society.

Digital Storytelling will enhance and broaden a student’s knowledge and understanding of film terms and techniques, the adaptation of literature to screenplays, genres of films, elements of symbolism, and literary themes in films.

Academically, students will develop and reinforce: 1) oral and written communication skills; 2) critical thinking skills; 3) an ability to write analytical essays and film critiques; 4) an ability to compare and contrast novels and stories to their film adaptations; and 6) the habit of viewing moving images critically rather than passively.

COURSE TITLE: LITERATURE OF GENRE

COURSE NO: 230140

LEVELS: 10, 11, 12

CREDIT: 1

The focus of this course is an in-depth study of a particular genre each year. The genre study for the 2022-2023 school year is dystopian fiction. In this class, students will improve their ability to understand and analyze motivations and techniques of writers in these genres. Students will explore the traditions of the dystopian novel and the reasons for renewed popularity in the 21st century. Students will analyze the role of literature as a means of reflecting and shaping thought and behavior. Students will learn about archetypes and popular symbolism in the genre. Students will read a variety of short stories, novels, and view dystopian films. Students are expected to analyze the works, participate in class discussions, and write both critical and personal responses to the texts and films.

FINE ARTS

CHORAL MUSIC

COURSE TITLE: BEGINNING MIXED CHORUS I

COURSE NO: 500925C1

LEVELS: 9, 10, 11, 12

CREDIT: 1

No audition is necessary to be in Beginning Mixed Chorus. This “come one, come all” choir is open to all voice types, along with upperclassmen also enrolled in auditioned ensembles. The course will consist of daily rehearsals, concerts, assessment events and will serve as preparatory class for audition opportunities should a student need/want. Musical repertoire will consist of music from early Baroque to Modern and will include several opportunities for male-only and female-only ensembles collaborative events held off-campus throughout the year.

COURSE TITLE: MIXED CHORUS II (ADVANCED TREBLE CHORALE)

COURSE NO: 500925C2

LEVELS: 9, 10, 11, 12

CREDIT: 1

This ensemble is open to any treble voice wanting to participate in an all-treble choral group. A voice check/voice placement audition will be required to sing in this ensemble. The course will consist of daily rehearsals, concerts, assessment events and will serve as an advanced SSAA ensemble with multiple divisi'd repertoire performed. Musical repertoire will consist of music from early Baroque to Modern and will include several opportunities for female-only choral ensemble collaborative events held off-campus throughout the year. See the director for more information. Auditions are held in April of the semester prior.

COURSE TITLE: ADVANCED MIXED CHORUS (CHORISTERS)

COURSE NO: 500925C3

LEVELS: 10, 11, 12

CREDIT: 1

PREREQUISITES: BY AUDITION ONLY

This ensemble is for advanced vocal musicians. Auditions will be held in the Spring Semester. Current members of the ensemble do not need to re-audition. We will study and perform a wide range of choral literature. There will be approximately six (6) required performances. See the director for more information. Space is limited.

COURSE TITLE: INDIVIDUAL VOCAL

COURSE NO: 500925C4

LEVEL: 10, 11, 12

CREDIT: 1

Prerequisite: ONE YEAR IN HIGH SCHOOL CHOIR BEFORE ENROLLING

This course will be designed to assist all vocalists in the school prepare for the state sanctioned KMEA Solo and Ensemble Festival held every March. Students will work on individual literature as well as ensemble preparation for a voice recital to be held at the end of the fall and spring semesters. Solo and Ensemble literature will be provided by the Vocal Instructor(s) and various keyboards will be used throughout the practice rooms, choral library and choral classroom. Daily rehearsals will be in the form of a master-class, where instruction will be demonstrated by various students and guest artists. When students have completed the course, they will have multiple pieces for auditions at the collegiate level, as well as KMEA sanctioned events and Governor School for the Arts.

COURSE TITLE: MUSIC PIANO 1

COURSE NO: 500922C1

LEVEL: 9, 10, 11, 12

CREDIT: 1

This class is designed with the beginning piano learner in mind. Classes will occur daily in the piano lab located in the choir room. Basic keyboarding skills, along with basic music theory, will be taught. Students will be provided with their own piano. Students will be asked to purchase a workbook and provide their own headphones with an adapter. The workbook may be purchased from the school for \$15. Alfred Piano Series will be the textbook that will accompany this class. A piano recital will take place at the end of each semester.

COURSE TITLE: MUSIC PIANO 2

COURSE NO: 500922C2

LEVEL: 10, 11, 12

CREDIT: 1

This class is an extension of our beginning piano course. Students should have successfully completed Piano 1, and must have at least an A/B cumulative grade from Piano 1. Exceptions to this course recommendation would be student having private piano instruction and with teacher recommendation. Students will be provided with their own piano. Students will be asked to purchase a workbook and provide their own headphones with an adapter. The

workbook may be purchased from the school for \$15. Alfred Piano Series will be the textbook that will accompany this class. A piano recital will take place at the end of each semester.

HUMANITIES

COURSE TITLE: ARTS AND HUMANITIES I

COURSE NO: 600160

LEVELS: 9, 10, 11, 12

CREDIT: 1

This course will explore the elements of art, music, dance, and theater through a study of terminology, literature, history, famous people, architecture, major world religions, and philosophies of various cultures and eras.

COURSE TITLE: AP ART HISTORY

COURSE NO: 500721

LEVELS: 10, 11, 12

CREDIT: 1

FEES: ALL STUDENTS ARE ENCOURAGED TO TAKE THE AP EXAM. ESTIMATED COST OF THE AP EXAM IS \$100.

PREREQUISITES: It is strongly encouraged that students taking this course have some background in history through classes like World History or European History AP.

This course offers the serious student the opportunity to explore, in depth, the history of art from ancient times to the present. Through readings, research, slides, videos, and museum visits, students will view significant artworks from around the world. Writing skills will be important in the description, analysis, and comparison of these works. Summer work is mandatory as part of this course.

COURSE TITLE: MUSIC HISTORY ROCK & ROLL C1

COURSE NO: 500912C1

LEVELS: 11, 12

CREDIT: 1

A social and cultural history of the U. S. as seen through the music from the 1950's through 2000. It will be a project driven class that will require a cooperative teamwork approach.

COURSE TITLE: MUS167MIDDC- MUSIC APPRECIATION – DUAL CREDIT

COURSE NO: 800031AHC4

LEVELS: 12

CREDIT: 1

FEES: ALL STUDENTS ARE RESPONSIBLE FOR THE DUAL CREDIT FEE AND TEXTBOOK.

This course, entitled Music Appreciation, is designed to render an understanding of, and familiarity with, the place of music in civilization, both in Western culture and globally. This course stresses listening in the structural, functional and historical context of music from the Middle Ages into the twentieth and twenty-first centuries. This course is not designed as a conventional music history course, nor does it follow traditional methods of study including chronological, geographical, cultural, or variety (genre) studies. This course also includes many references to world music. The development of the chief forms of the art of music and musical expression is emphasized.

INSTRUMENTAL MUSIC

COURSE TITLE: SYMPHONIC BAND

COURSE NO: 500917

LEVELS: 9, 10, 11, 12

CREDIT: 1

PREREQUISITES: AUDITION AND/OR PERMISSION OF INSTRUCTOR

Symphonic Band is the premiere instrumental ensemble at FCHS and requires significant skill based on previous music instruction. Members of this class combine with the Concert Band to form the Flyer Marching Band. The Flyer Band is co-curricular, meaning that its members must enroll in a band class as well as participate fully in the after-school aspects of the program, including band camp, after-school rehearsals and performances. All after-school rehearsals and performances are graded. The Flyer Band gives multiple concerts each year and supports the school and community by performing at athletic events, parades and school functions.

COURSE TITLE: GENERAL/CONCERT BAND

COURSE NO: 500913

LEVELS: 9, 10, 11, 12

CREDIT: 1

PREREQUISITES: AUDITION AND/OR PERMISSION OF INSTRUCTOR

Concert Band is an advanced performance-based instrumental music class that requires previous music instruction as well as a demonstrated proficiency on a wind or percussion instrument. Members of this class combine with the Symphonic Band to form the Flyer Marching Band. The Flyer Band is co-curricular, meaning that its members

must enroll in a band class as well as participate fully in the after-school aspects of the program, including band camp, after-school rehearsals and performances. All after-school rehearsals and performances are graded. The Flyer Band gives multiple concerts each year and supports the school and community by performing at athletic events, parades and school functions.

COURSE TITLE: MUSIC JAZZ ENSEMBLE I

COURSE NO: 500920C1

LEVELS: 9, 10, 11, 12

CREDIT: 1

PREREQUISITES: AUDITION AND/OR PERMISSION OF INSTRUCTOR

This course focuses on the development of skills students will need to possess to function in jazz band. It is open to members of the Flyer Band who play saxophone, trumpet, trombone, piano, bass, drum set, and guitar. All after-school rehearsals and performances are graded. The Jazz Band gives multiple concerts each year and supports the school and community by performing at many different functions.

COURSE TITLE: INDIVIDUAL INSTRUMENTAL STUDY I

COURSE NO: 500921C1

LEVELS: 9, 10, 11, 12

CREDIT: 1

PREREQUISITES: PERMISSION OF INSTRUCTOR

This course will be designed to assist instrumentalists in the further development of their performance skills. Students enrolled in this course will study repertoire for their individual instruments as well as small group chamber works. There will be regular recitals given by the members of this course. All students in this course are required to participate in KMEA Solo and Ensemble Festival held every February. Students in this class will also be encouraged to audition for various regional, state, and national honors ensembles. Students enrolled should also be a member of the FCHS Concert or Symphonic Bands.

VISUAL ARTS

COURSE TITLE: VISUAL ART I (ART I)

COURSE NO: 500711C1

LEVELS: 9, 10, 11, 12

CREDIT: 1

SUPPLIES: Pencils, a sketchbook, a set of colored pencils, and 2 calligraphy pens.

This course provides instruction in the basic art areas that emphasize design, drawing, painting, calligraphy, paper mache, and collage. Visual art careers, art history, appreciation, evaluation, and aesthetics will be incorporated into studio instruction. This class is the combination of both Basic Drawing and Painting with a few extra units of study.

COURSE TITLE: VISUAL ART II (ART II)

COURSE NO: 500711C2

LEVELS: 10, 11, 12

CREDIT: 1

PREREQUISITES: Any Visual Art Class

SUPPLIES: Pencils, a sketchbook, and a set of colored pencils.

This course will provide in-depth studio instruction in areas of: design, drawing, painting, perspective, printmaking, and sculpture. Art history (with an emphasis on Modern Art), appreciation, and evaluation will be incorporated in the studio instruction.

COURSE TITLE: VISUAL ART III (ART III)

COURSE NO: 500711C3

LEVELS: 10, 11, 12

CREDIT: 1

PREREQUISITES: ART II and credit in any other Visual Art Class

SUPPLIES: Pencils, a sketchbook, and a set of colored pencils

This studio course provides in depth instruction in figure drawing, painting, sculpting, color theory, and art history. The course is designed for the serious art student who wants to experiment with advanced techniques and may want to develop works for a college entry portfolio. This course is combining what was Art III and Art IV.

COURSE TITLE: AP 2-D ART AND DESIGN

COURSE NO: 500722

LEVELS: 10, 11, 12

CREDIT: 1

FEES: ALL STUDENTS ARE ENCOURAGED TO TAKE THE AP EXAM. ESTIMATED COST OF THE AP EXAM IS \$100.

PREREQUISITES: It is strongly encouraged that students taking this course have some background in art obtained from either Visual Art I or Basic Drawing for 2-D Portfolios.

This course is designed to guide serious art students in the development of a portfolio in 2-D Design. Through studio practice, application of design concepts, and informed decision-making, students will assemble a body of artwork that demonstrates a high level of quality and growth over time of content, technique, and process. Students will develop mastery in concept, composition, and execution. Students will address three components in their portfolios: Quality, Concentration, and Breadth. Students will submit this body of work to the College Board for grading and possible college credit. Summer assignments are required as part of this course.

COURSE TITLE: SCULPTURE

COURSE NO: 500713

LEVELS: 9, 10, 11, 12

CREDIT: 1

SUPPLIES: Pencils and a sketchbook

This course will provide students with the opportunity to learn to express their ideas in three-dimensional form, thus creating an awareness of form and space. A variety of sculpture media for both additive and subtractive methods will be explored. Students will use sculptural materials that lend themselves to modeling, construction, carving, or chiseling. Various media will include, cardboard, metal, plaster, clay, paper mache, paper, and textiles.

COURSE TITLE: CERAMICS I

COURSE NO: 500212C1

LEVELS: 9, 10, 11, 12

CREDIT: 1

SUPPLIES: A set of clay tools and a sketchpad.

This course is designed to introduce the student to the medium of clay and the methods of clay construction, involving development of skills in forming and finishing. Emphasis will be placed on hand-forming methods of pinch, coil, and slab techniques. Students will be introduced to wheel-formed pottery and throwing techniques. Glaze techniques, kiln loading, firing, and basic concepts of three-dimensional design will be included. Students will address aesthetics of form, visual thinking, and the history of ceramics.

COURSE TITLE: CERAMICS II

COURSE NO: 500212C2

LEVELS: 10, 11, 12

CREDIT: 1

SUPPLIES: A set of clay tools and a sketchpad.

PREREQUISITES: Ceramics 1

This course will provide in-depth studio instruction in areas of clay and the methods of clay construction, involving development of skills in forming and finishing. Emphasis will be placed on hand-forming methods of sculpting faces, figures and wall mounts. Students will be introduced to wheel-formed pottery and throwing techniques. Glaze techniques, kiln loading, firing, and basic concepts of three-dimensional design will be included.

COURSE TITLE: CERAMICS III

COURSE NO: 500212C3

LEVELS: 11, 12

CREDIT: 1

SUPPLIES: A set of clay tools and a sketchpad.

PREREQUISITES: Ceramics I & II

This course will provide advanced exploration of hand building and wheel throwing techniques. Emphasis on developing proficiency in clay use, surface applications, and kiln firings. Emphasis is on continuing development of personal expression, aesthetic, glazing techniques using the art form of sculpting ceramics. Safety issues continue to be addressed.

FOREIGN LANGUAGE

COURSE TITLE: FRENCH I HONORS

COURSE NO: 160408H

LEVELS: 9, 10, 11, 12

CREDIT: 1

This class is intended for 9th graders who plan to study French for all four years of high school and plan to prepare for the Advanced Placement Exam or for students who have excelled in other languages (Latin, French). This is a course with high academic standards. Pronunciation, communication skills, and grammar will be emphasized during this course. This course will also include the culture, history, and geography of French speaking people. Students must be willing to study and practice the language orally and will be held accountable for mastering French on a first year level.

COURSE TITLE: FRENCH II HONORS

COURSE NO: 160409H

LEVELS: 10, 11, 12

CREDIT: 1

PREREQUISITES: FRENCH I

This course is for students who excelled in French I. The scope and sequence of this class will be in greater detail and will be more varied than that of the regular French II class. A detailed grammar study, with special emphasis on vocabulary, reading, and listening, is included. French history, geography, and culture are studied.

COURSE TITLE: FRENCH III HONORS

COURSE NO: 160410H

LEVELS: 10, 11, 12

CREDIT: 1

PREREQUISITES: FRENCH II

The focus of this course is preparation for French IV Honors. It includes a review of basic grammar, with emphasis on special structures. An emphasis is also placed on composition and conversation. Some reading selections are studied. Vocabulary is advanced and oral work is emphasized.

COURSE TITLE: FRENCH IV HONORS

COURSE NO: 160411H

LEVELS: 12

CREDIT: 1

This course is a continuation of French III. The focus will be on speaking, reading, and grammar at higher levels of learning. It is designed for students planning to take French in college but do not plan to take the French AP Exam.

COURSE TITLE: AP FRENCH LANGUAGE & CULTURE

COURSE NO: 160430

LEVELS: 12

CREDIT: 1

PREREQUISITES: FRENCH III

FEES ALL STUDENTS ARE ENCOURAGED TO TAKE THE AP EXAM. ESTIMATED COST OF THE AP EXAM IS \$100.

This is an intense study in preparation for the Advanced Placement exam in May. French literature and history are studied. There is an in-depth study of listening, speaking, reading, and writing compositions in French.

COURSE TITLE: SPANISH I

COURSE NO: 161108

LEVELS: 9, 10, 11, 12

CREDIT: 1

This course provides practice in hearing, speaking, reading, and writing simple Spanish with basic fundamentals of grammar usage which progress toward complex structure forms. A small degree of fluency is attained. The cultural aspects of Spain and Spanish America are studied.

COURSE TITLE: SPANISH I HONORS

COURSE NO: 161108H

LEVELS: 9

CREDIT: 1

This class is intended for 9th graders who plan to study Spanish for all four years of high school and plan to prepare for the Advanced Placement Exam or for students who have excelled in other languages (Latin, French). This is a course with high academic standards. Pronunciation, communication skills, and grammar will be emphasized during this course. This course will also include the culture, history, and geography of Spanish speaking people. Students must be willing to study and practice the language orally and will be held accountable for mastering Spanish on a first year level.

COURSE TITLE: SPANISH II

COURSE NO: 161109

LEVELS: 9, 10, 11, 12

CREDIT: 1

PREREQUISITES: successful completion of SPANISH I

This course is a continuation of Spanish I. It includes further speaking, reading, writing skills, and more complex grammar studies. Students gain better understanding of South American and Spanish people through the study of culture and history.

COURSE TITLE: SPANISH II HONORS

COURSE NO: 161109H

LEVELS: 9, 10, 11, 12

CREDIT: 1

PREREQUISITES: SPANISH I

This course is for students who excelled in Spanish I. The class description is the same as Spanish II except the class will have more in-depth study of the language.

COURSE TITLE: SPANISH III HONORS

COURSE NO: 161110H

LEVELS: 10, 11, 12

CREDIT: 1

PREREQUISITES: Minimum of a B in SPANISH II or a passing grade on a placement test.

This course provides preparation for advanced placement. It includes a review of basic grammar. An emphasis is placed on composition and conversation. There are some reading selections required

COURSE TITLE: AP SPANISH LANGUAGE

COURSE NO: 161130

LEVELS: 12

CREDIT: 1

PREREQUISITES: SPANISH III/TEACHER RECOMMENDATION

FEES: ALL STUDENTS ARE ENCOURAGED TO TAKE THE AP EXAM. ESTIMATED COST OF THE AP EXAM IS \$100.

This is an intense study in preparation for the Advanced Placement Exam in May. It is an in-depth study of language usage orally, aurally, and written.

COURSE TITLE: SPA101KSUDC - SPANISH 101 – DUAL CREDIT

COURSE NO:80033WLC1

LEVELS: 10-12

CREDIT: 1

PREREQUISITES: Completion of Spanish I and II with a B or better is recommended and an unweighted cumulative GPA of at least a 2.5

FEES: ALL STUDENTS ARE RESPONSIBLE FOR THE DUAL CREDIT FEE AND TEXTBOOK.

Elementary Spanish I. An introductory Spanish course with emphasis on elementary grammar, vocabulary building, reading and listening comprehension. Not for students with prior background in Spanish.

COURSE TITLE: SPA102KSUDC- SPANISH 102 – DUAL CREDIT

COURSE NO: 800033WLC2

LEVELS: 11-12

CREDIT: 1

PREREQUISITES: Spanish 101 Dual Credit and unweighted cumulative GPA of at least a 2.5

FEES: ALL STUDENTS ARE RESPONSIBLE FOR THE DUAL CREDIT FEE AND TEXTBOOK.

Continuation of SPA 101 with greater emphasis on pronunciation and oral expression. Conducted in both Spanish and English. Student must earn a "C" or better to earn dual credit.

HEALTH & PHYSICAL EDUCATION

Students are allowed to sign up for only one (1) physical education class during the initial class scheduling. After every student has had a chance to sign up for at least one (1) P.E. class, any additional openings could be added to a student's schedule at a later date.

COURSE TITLE: INTEGRATED HEALTH AND PHYSICAL EDUCATION

COURSE NO: 340290

LEVELS: 9, 10, 11, 12

CREDIT: 1

Health Component- The purpose of this section of the course is to provide the students with practical knowledge that will help them keep physically fit and mentally healthy throughout their lives. The course will place emphasis on decision-making skills as they relate to nutrition, stress, fitness, and substance abuse. Human behavior along with emotions and human relations (such as family, peers, dating, and marriage) will be addressed. Other topics will include AIDS, personal hygiene, human heredity, various systems of the body, and basic fundamentals of first aid. This course is a state requirement toward graduation.

Physical Education Component- The purpose of this section of this course is to teach students various fitness concepts for them to use now and in their adult lives. This course will also expose the students to several options of team and individual sports that can be used to pursue lifetime fitness. Through the activities in the course the students will also learn the physical, mental/emotional, and social benefits of sports and physical activities.

COURSE TITLE: PHYSICAL EDUCATION II

COURSE NO: 340219C2

LEVELS: 10,11,12

CREDIT: 1

PREREQUISITES: PE I

Course will include skills in activity, rules, attitudes, participation, and improvement.

COURSE TITLE: PHYSICAL EDUCATION III-IV

COURSE NO: 340219C3, 340219C4

LEVELS: 11, 12

CREDIT: 1

PREREQUISITES: PE II

Courses included high level of skills, study of history of certain sports, and officiating.

COURSE TITLE: FITNESS AND CONDITIONING: WEIGHTS

COURSE NO: 340214

LEVELS: 10, 11, 12

CREDIT: 1

Course will include rigorous training to enhance character development, physical conditioning and positive attitude development. Emphasis will be placed on agility training and weight training for physical education activities, as well as, nutrition and body building chemistry.

COURSE TITLE: FITNESS AND CONDITIONING: NUTRITION

COURSE NO: 340214C2

LEVELS: 10, 11, 12

CREDIT: 1

This course is designed to teach students healthy ways to lose weight and gain weight. Students will also have the opportunity to set fitness and weight loss/gain goals as well as have time to work on these goals during class time. This course will have access to the gym and the weight room. This course will also have a nutrition component. Students will learn how to create a diet that is still healthy but can help reach their weight loss/gain goals. Students will also be keeping a food log to analyze their diets. All weight or BMI information will be personal information that the student can keep to themselves if they wish to do so.

COURSE TITLE: AEROBICS DANCE/YOGA

COURSE NO: 340215

LEVELS: 10, 11, 12

CREDIT: 1

This course offers a variety of aerobic activities, some weight training and weight management. It also offers the students the opportunity to design their own exercise tape.

MATHEMATICS

State requirements are for all students to have credits in Algebra I, Geometry, and Algebra II and a fourth math elective. Seniors, by law, must also be enrolled in a math class. All mathematics courses at FCHS make appropriate use of calculators and computers. Students will be provided with classroom opportunities to use scientific calculators as well as calculators with fractions and graphing capabilities. Upon enrolling in their first math course, students are encouraged to purchase scientific calculators.

COURSE TITLE: ALGEBRA I

COURSE NO: 270304

LEVELS: 9, 10

CREDIT: 1

SUPPLIES: Scientific Calculator

A first year college preparatory course. Algebra skills are taught and explained through integration with topics from other branches of math.

COURSE TITLE: ALGEBRA I HONORS

COURSE NO: 270304H

LEVELS: 9

CREDIT: 1

SUPPLIES: Scientific Calculator

A first year college preparatory course for students who are proficient in basic mathematics and have mastered pre-algebra skills. Algebra skills are taught and explained through integration with topics from other branches of math. This course is designed to prepare students who intend to enroll in advanced Mathematics courses.

COURSE TITLE: GEOMETRY

COURSE NO: 270401

LEVELS: 10, 11, 12

CREDIT: 1

PREREQUISITES: ALGEBRA I

SUPPLIES: Scientific Calculator

A second year college preparatory course, this is a study of plane and solid figures, line and angle relationships, congruent and similar figures, circles, constructions, trigonometry, and inductive and deductive reasoning. Emphasis is placed on developing thinking skills. Topics from other branches of mathematics are integrated throughout the course.

COURSE TITLE: GEOMETRY HONORS

COURSE NO: 270401H

LEVEL: 9, 10, 11

CREDIT: 1

PREREQUISITE: ALGEBRA I or ALGEBRA I Honors

SUPPLIES: Scientific Calculator

A second year college preparatory course, this is a study of plane and solid figures, line and angle relationships, congruent and similar figures, circles, constructions, trigonometry, and inductive and deductive reasoning. Emphasis is placed on developing thinking skills. Topics from other branches of mathematics are integrated throughout the course. This course is designed to prepare students who intend to enroll in advanced Mathematics courses.

COURSE TITLE: TECHNICAL MATHEMATICS

COURSE NO: 270643

LEVELS: 11,12

CREDIT: 1

PREREQUISITES: Successful completion of Algebra I and Geometry

SUPPLIES: TI-83/84 PLUS

This course will focus on the applications of mathematics from algebra one, geometry, and trigonometry. This will include standards that have been covered and add to them as well. Topics to be covered include (but are not limited to) unit conversions, variation, measurement of geometric figures, and solving triangles using trigonometry. This course places an emphasis on numerous applications.

COURSE TITLE: PROBABILITY AND STATISTICS

COURSE NO: 270602

LEVELS: 10,11,12

CREDIT: 1

PREREQUISITES: Successful completion of Algebra I and Geometry

SUPPLIES: TI-83/84 PLUS

It provides students with an introduction to important topics in statistics by focusing on the statistical thinking behind data collection and analysis. It helps students be more discerning consumers of statistics, teaching them to

interpret the numbers in surveys, election polls, and medical studies. Topics include sampling, surveys, experimental design, organizing data, distributions, probability, and inference. Emphasis is on applications of statistical concepts.

COURSE TITLE: DISCRETE MATHEMATICS

COURSE NO: 270611

LEVELS: 11, 12

CREDIT: 1

PREREQUISITES: ALGEBRA I and GEOMETRY

SUPPLIES: TI-36X Pro Calculator

This course is designed for students who have completed courses containing all the required high school Kentucky Academic Standards for Mathematics and are interested in a future in business or computer applications. This course will address such topics as studying a collection of objects, using patterns to prove a statement, solving problems using diagrams that involve points and lines, probabilities, and other topics as deemed appropriate.

COURSE TITLE: FINITE MATHEMATICS

COURSE NO: 270612

LEVELS: 11, 12

CREDIT: 1

PREREQUISITES: ALGEBRA I and GEOMETRY

SUPPLIES: TI-36X Pro Calculator

This course is designed for students who have completed courses containing all the required high school Kentucky Academic Standards for Mathematics. This course will include modeling situations involving linear systems using matrices, linear inequalities systems (programming), data analysis, probability, and finance applications.

COURSE TITLE: ALGEBRA II

COURSE NO: 270311

LEVELS: 10,11,12

CREDIT: 1

PREREQUISITES: Geometry

SUPPLIES: Scientific Calculator or TI-83/84 PLUS

Our third college preparatory course, this course reinforces and expands the skills learned in Algebra I. Topics covered include complex numbers, quadratic equations, graphs of functions, and trigonometry.

COURSE TITLE: ALGEBRA II HONORS

COURSE NO: 270311H

LEVELS: 10, 11

CREDIT: 1

PREREQUISITES: GEOMETRY or GEOMETRY Honors

SUPPLIES: TI-83/84 PLUS or N-spire graphing calculator

This is an accelerated algebra course. Topics covered include those listed in Algebra II but they will be covered in more depth. Students will be expected to work through algebra problems both with and without a calculator. This course is designed to prepare students who intend to enroll in advanced Mathematics courses.

COURSE TITLE: PRE-CALCULUS

COURSE NO: 270501

LEVELS: 11,12

CREDIT: 1

PREREQUISITES: Algebra II or Algebra II Honors

SUPPLIES: TI-83/84 PLUS or N-spire graphing calculator

A fourth college preparatory course, this course includes topics from trigonometry and analytic geometry. Emphasis is placed on the study of functions and their graphs. Students who plan to take Calculus in high school or in college should take this course.

COURSE TITLE: MTH220MIDD- CALCULUS I – DUAL CREDIT

COURSE NO: 800021QRC13

LEVELS: 12

CREDIT: 1

PREREQUISITES: PRE-CALCULUS and ACT Math Subscore of a 19, as well as an 18 ACT composite score.

SUPPLIES: TI-83/84 PLUS or N-spire graphing calculator

FEES: ALL STUDENTS ARE RESPONSIBLE FOR THE DUAL CREDIT FEE AND TEXTBOOK.

Calculus I is a standard introductory calculus course. Limits and continuity; differentiation; applications of derivatives in a variety of situations; definite and indefinite integration; application of integrals in a variety of situations; derivatives and integrals of certain transcendental functions. This is a course in elementary functions and introductory calculus covering differential and integral topics including polynomial functions this course parallels (and in fact should replace) first semester college calculus and follows the curriculum established by the College Board. Students will be prepped to take the AP exam and are encouraged to do so. Students must earn a "C" or better to earn college credit.

COURSE TITLE: AP CALCULUS BC**COURSE NO:** 270514**LEVELS:** 12**CREDIT:** 1**PREREQUISITES:** PRE-CALCULUS and Teacher Recommendation**SUPPLIES:** TI-83/84 PLUS or N-spire graphing calculator**FEES:** STUDENTS ARE ENCOURAGED TO TAKE THE AP EXAM, ESTIMATED COST IS \$100.

Calculus BC is an extension of Calculus AB rather than an enhancement. Additional concepts covered in Calculus BC are: parametric, polar and vector equations and their derivatives; numerical solutions of differential equations using Euler's method; L'Hospital's rule; applications of integrals; improper integrals; concepts of series, Taylor series, and series of constants. This course parallels (and in fact should replace) first and second semester college calculus and follows the curriculum established by the College Board.

COURSE TITLE: MATH PERSONAL FINANCE**COURSE NO:** 080719**LEVELS:** 11, 12**CREDIT:** 1

This course is designed to provide students with the knowledge and skills to manage one's financial resources effectively for lifetime financial security. Topics include economics, money in the economy, budgeting, credit, consumer rights, investments and financial/retirement planning.

COURSE TITLE: ADVANCED TOPICS IN MATHEMATICS**COURSE NO:** 270621**LEVELS:** 11, 12**CREDIT:** 1**PREREQUISITE:** Algebra II**SUPPLIES:** TI-83/84 PLUS graphing calculator

This course is a combination of topics from Algebra and Geometry. A special emphasis is placed on collecting and analyzing data, matrices, statistics, and probability.

COURSE TITLE: MTH135MIDDC- MTH 135 INTERMEDIATE MATH – DUAL CREDIT**COURSE NO:** 800021QRC7**LEVELS:** 11, 12**CREDIT:** 1**PREREQUISITE:** Algebra II; Composite ACT score of 18

MAT 135 is to prepare students for MAT 140 College Algebra. Topics include solving linear equations with one variable; equations of straight lines in the two-dimensional Cartesian plane; solving systems of linear equations in two or three variables; laws of exponents; factorization of polynomials; manipulating rational and radical expressions.

COURSE TITLE: MTH140MIDDC- MTH 140 COLLEGE ALGEBRA – DUAL CREDIT**COURSE NO:** 800021QRC11**LEVELS:** 12**CREDIT:** 1**PREREQUISITES:** GEOMETRY and Algebra II or Algebra II Honors; ACT Math Subscore of a 19 and a composite ACT score of 18.**SUPPLIES:** TI-83/84 PLUS or N-spire graphing calculator**FEES:** ALL STUDENTS ARE RESPONSIBLE FOR THE DUAL CREDIT FEE AND TEXTBOOK.

This is a standard university Algebra course. Topics include: linear equations and inequalities; complex numbers; quadratic equations; equations of a straight line; finding the implicit domains of functions; the algebra and composition of functions; inverse functions; quadratic functions and their graphs; exponential and logarithmic functions; solving systems of linear equations in several variables. Students must earn a "C" or better to earn college credit.

COURSE TITLE: MTH 139 INTRO TO QUANTITATIVE ANALYSIS – DUAL CREDIT**(MTH139MIDDC)****COURSE NO:** 800021QRC8**LEVELS:** 11, 12**CREDIT:** 1**PREREQUISITES:** Algebra II and a ACT Math subscore of a 19 and a composite score of 18**SUPPLIES:** TI-83/84 PLUS or N-spire graphing calculator**FEES:** ALL STUDENTS ARE RESPONSIBLE FOR THE DUAL CREDIT FEE AND TEXTBOOK.

Introduction to using statistical techniques to model and solve real-world business problems. Topics include: Data-based techniques of graphical display, grouping of data, measures of central tendency and dispersion, probability of concepts and distributions, sampling statistical estimation, hypothesis

testing, and time series analysis. Curriculum for this course follows the AP Statistics curriculum set by the College Board and is designed to prepare students for the AP Statistics exam in May. Students must earn a "C" or better to earn college credit.

SCIENCE

When choosing science course work, it is important to look at the big picture and plan accordingly--how much do you want to learn, how hard are you willing to work, how do your science courses mesh with your other classes in other subject areas, what are your long-term goals? When these decisions have been made and the course work successfully completed, you will be prepared to take the next step after high school, either to post secondary education (as in college or technical school) or as a contributing member of the work-force.

COURSE TITLE: INTEGRATED SCIENCE I (A & B)

COURSE NO: 303091

LEVELS: 9, 10, 11, 12

CREDIT: 1

This is a lab-based introductory course that includes the standards listed within the topics of Structure and Properties of Matter, Chemical Reactions, Structure and Function, Interdependent Relationships in Ecosystems, History of Earth and Earth's Systems. These topics provide the foundational concepts needed for successive science courses to build upon. Students will learn these core ideas within these topics through the use of science and engineering practices and crosscutting concepts as they investigate the natural world and develop solutions to problems.

COURSE TITLE: INTEGRATED SCIENCE I (A & B) HONORS

COURSE NO: 303091H

LEVELS: 9, 10, 11, 12

CREDIT: 1

This is a lab-based introductory course that includes the standards listed within the topics of Structure and Properties of Matter, Chemical Reactions, Structure and Function, Interdependent Relationships in Ecosystems, History of Earth and Earth's Systems. These topics provide the foundational concepts needed for successive science courses to build upon. Students will learn these core ideas within these topics through the use of science and engineering practices and crosscutting concepts as they investigate the natural world and develop solutions to problems. The honors section of Integrated Science will be more involved and move at a faster pace than the regular class. Completion of Algebra I with a B or better is recommended for this course.

COURSE TITLE: BIOLOGY WITH EARTH/SPACE SCIENCE

COURSE NO: 302698

LEVELS: 9, 10, 11, 12

CREDIT: 1

PREREQUISITES: SUCCESSFUL COMPLETION OF INTEGRATED SCIENCE OR QUALIFYING MAP SCORES FROM MIDDLE SCHOOL

Students develop a conceptual understanding of Biology and Earth/Space Science. They experience biology and Earth/space science concepts, as outlined in the Kentucky Academic Standards for Science, such as structure and function of cells; molecular basis of heredity; biological change; changes in the Earth system; interdependence of organisms; matter, energy and organization in living systems; and the behavior of organisms. Students will learn these core ideas through the use of the science and engineering practices and crosscutting concepts. The science and engineering practices are the skills students will use as they investigate the natural world, and develop solutions to problems. The crosscutting concepts are conceptual ways of thinking that cross the domains of science.

COURSE TITLE: BIOLOGY WITH EARTH/SPACE SCIENCE HONORS

COURSE NO: 302698H

LEVELS: 9, 10, 11, 12

CREDIT: 1

PREREQUISITES: SUCCESSFUL COMPLETION OF INTEGRATED SCIENCE OR QUALIFYING MAP SCORES FROM MIDDLE SCHOOL

Students develop a conceptual understanding of Biology and Earth/Space Science. They experience biology and Earth/space science concepts, as outlined in the Kentucky Academic Standards for Science, such as structure and function of cells; molecular basis of heredity; biological change; changes in the Earth system; interdependence of organisms; matter, energy and organization in living systems; and the behavior of organisms. Students will learn these core ideas through the use of the science and engineering practices and crosscutting concepts. The science and engineering practices are the skills students will use as they investigate the natural world, and develop solutions to problems. The crosscutting concepts are conceptual ways of thinking that cross the domains of science.

COURSE TITLE: PHYSICS WITH EARTH/SPACE SCIENCE

COURSE NO: 304898

LEVELS: 10, 11, 12

CREDIT: 1

Students develop a conceptual understanding of physics and Earth/space science content, as outlined in the Kentucky Academic Standards for Science, through the use of the science and engineering practices. They experience physics and Earth/space science concepts such as motions and forces, conservation of energy and the increase in disorder, interactions of energy and matter, and energy in the Earth system. Students will learn these core

ideas through the use of the science and engineering practices and crosscutting concepts. The science and engineering practices are skills students will use as they investigate the natural world and develop solutions to problems. The crosscutting concepts are conceptual ways of thinking that cross the domains of science.

COURSE TITLE: PHYSICS WITH EARTH/SPACE SCIENCE HONORS

COURSE NO: 304898H

LEVELS: 10, 11, 12

CREDIT: 1

PREREQUISITES: TEACHER RECOMMENDATION

Students develop a conceptual understanding of physics and Earth/space science content, as outlined in the Kentucky Academic Standards for Science, through the use of the science and engineering practices. They experience physics and Earth/space science concepts such as motions and forces, conservation of energy and the increase in disorder, interactions of energy and matter, and energy in the Earth system. Students will learn these core ideas through the use of the science and engineering practices and crosscutting concepts. The science and engineering practices are skills students will use as they investigate the natural world and develop solutions to problems. The crosscutting concepts are conceptual ways of thinking that cross the domains of science.

COURSE TITLE: CHEMISTRY WITH EARTH/SPACE SCIENCE

COURSE NO: 304598

LEVELS: 10, 11, 12

CREDIT: 1

PREREQUISITES: ALGEBRA I, INTEGRATED SCIENCE I Parts 1& 2

SUPPLIES: SAFETY GOGGLES

Students develop a conceptual understanding of Chemistry and Earth/Space Science, as outlined in the Kentucky Academic Standards for Science, through the use of the science and engineering practices. They experience chemistry and Earth/space science concepts such as the structure of atoms, structure and properties of matter, chemical reactions, geochemical cycles, and formation and ongoing changes of the universe. The use of the science practices describes the behaviors students will engage in as they investigate the natural world. Students will learn these core ideas within these topics through the use of the science and engineering practices and crosscutting concepts. The science and engineering practices are skills students will use as they investigate the natural world and develop solutions to problems. The crosscutting concepts are conceptual ways of thinking that cross the domains of science.

COURSE TITLE: CHEMISTRY WITH EARTH/SPACE SCIENCE HONORS

COURSE NO: 304598H

LEVELS: 10, 11, 12

CREDIT: 1

PREREQUISITES: TEACHER RECOMMENDATION

SUPPLIES: SAFETY GOGGLES

Students develop a conceptual understanding of Chemistry and Earth/Space Science, as outlined in the Kentucky Academic Standards for Science, through the use of the science and engineering practices. They experience chemistry and Earth/space science concepts such as the structure of atoms, structure and properties of matter, chemical reactions, geochemical cycles, and formation and ongoing changes of the universe. The use of the science practices describes the behaviors students will engage in as they investigate the natural world. Students will learn these core ideas within these topics through the use of the science and engineering practices and crosscutting concepts. The science and engineering practices are skills students will use as they investigate the natural world and develop solutions to problems. The crosscutting concepts are conceptual ways of thinking that cross the domains of science.

COURSE TITLE: INTRO TO CHEMISTRY AND PHYSICS

COURSE NO: 304058

LEVELS: 10, 11, 12

CREDIT: 1

SUPPLIES: SAFETY GOGGLES

This course serves as an introduction which integrates the basic concepts of chemistry and physics as outlined in the Kentucky Academic Standards for Science. Students learn how the physical and chemical properties of matter can be explained and predicted in terms of atomic and molecular structures and forces. They also learn how balanced and unbalanced forces influence the behavior of objects. Students will learn these core ideas within these topics through the use of the science and engineering practices and crosscutting concepts. The science and engineering practices are skills students will use as they investigate the natural world and develop solutions to problems. The crosscutting concepts are conceptual ways of thinking that cross the domains of science.

SCIENCE ELECTIVES

COURSE TITLE: ASTRONOMY I

COURSE NO: 304612

LEVELS: 11, 12

CREDIT: 1

PREREQUISITES: ANY SCIENCE COURSE

Astronomy is a study of the many components, which make up our universe including how these components interact and influence each other. Special emphasis is placed on the history of astronomy, tools of the astronomer, structure of interactions within our solar system, deep-space objects, and laws which govern the motion of bodies in space as well as the production and distribution of mass and energy. The telescope, spectroscope, models, demonstrations, and other appropriate techniques will be utilized to augment the text and lectures.

COURSE TITLE: ASTROBIOLOGY

COURSE NO: 303010

LEVELS: 11, 12

CREDIT: 1

PREREQUISITES: BIOLOGY

This is an inquiry-based course designed around the scientific study of life in the universe--its origin, evolution, distribution and future. This multidisciplinary course brings together the physical and biological sciences to address some of the most fundamental questions of the natural world: How do living systems emerge? How do habitable worlds form and how do they evolve? Does life exist on worlds other than Earth and what forms may they take?

COURSE TITLE: FORENSIC SCIENCE

COURSE NO: 302616

LEVELS: 11, 12

CREDIT: 1

PREREQUISITES: INTEGRATED SCIENCE AND BIOLOGY

Forensic Science is an introductory course, where students will have the opportunity to look at different scenarios and use the scientific method for analytical purposes. The students will be given different problems/situations and will have to develop their own hypothesis, collect data, analyze the data, perform experiments, and develop conclusions. This class will incorporate several branches of science such as biology, chemistry, physics, anatomy and physiology, as well as many others. This class will focus on ways to use the scientific method and available technology to solve forensic investigations. We will also focus on research, case studies, as well as possible careers in this ever-growing field of science.

COURSE TITLE: AP BIOLOGY

COURSE NO: 302646

LEVELS: 11, 12

CREDIT: 1

PREREQUISITES: BIOLOGY I

FEES: ALL STUDENTS ARE ENCOURAGED TO TAKE THE AP EXAM. ESTIMATED COST OF THE AP EXAM IS \$100.

The AP Biology course is a challenging year long biology course designed to be the equivalent of a two-semester first year college course. Maturity, motivation, study habits, invested time and effort, and reading and writing abilities will contribute greatly to individual student success in this course. This course is designed to prepare students for the college level Advanced Placement Biology Examination and is based on the curriculum established by the College Board. Students will be expected to participate in 12 laboratory exercises comparable to a first year college level Biology course. The labs include inquiry based labs which may also incorporate computerized data acquisition and analysis. This class requires learning at an accelerated pace due to the amount and complexity of the required material. Material will be covered through daily class lectures, in-class activities, homework assignments, discussions, laboratories, and independent projects and readings. **Students enrolling in the Advanced Placement Biology course should have a strong foundation in biology and chemistry.**

COURSE TITLE: BIO155MIDDC AND BIO156MIDDC- BIO 155 AND 156 BIOLOGY – DUAL

CREDIT

COURSE NO:

LEVELS: 11, 12

CREDIT: 2

BIO155 (class) - 800041NSC1

BIO156 (lab) - 800041NSC2

*These are 2 separate courses (2 class periods).

FEES: ALL STUDENTS ARE RESPONSIBLE FOR THE DUAL CREDIT FEE AND TEXTBOOK.

This is an introductory lecture and lab course to the science of life which offers an overview of biological principles, cell structure and function, genetics, evolution, ecology, a survey of the domains and kingdoms of living organisms, and the importance of biology to human society. Lab activities include scientific methods, microscope use, homeostasis, genetics, evolution, and a survey of plants and animals. This course will prep students to take the Biology II AP exam if the student chooses to do so. This course is designed for the non-science major. Students must earn a "C" or better to earn college credit.

COURSE TITLE: PHYSICS II

COURSE NO: 304821C2

LEVELS: 11,12

CREDIT: 1

PREREQUISITES: PHYSICS I/ PERMISSION OF INSTRUCTOR

Physics II is a lab-oriented course in which students investigate concepts such as motion, forces, energy, waves, light, electricity, magnetism, fluids, and modern physics using modern technology for data collection and analysis. Students in physics II will expand and refine their physics I-level understanding of these concepts.

COURSE TITLE: AP PHYSICS C: MECHANICS

COURSE NO: 304825

LEVELS: 12

CREDIT: 1

PREREQUISITES: PHYSICS I

CO-REQUISITE FOR AP: CALCULUS (AB or BC or DUAL CREDIT)

FEES: ALL STUDENTS ARE ENCOURAGED TO TAKE THE AP EXAM. ESTIMATED COST OF THE AP EXAM IS \$100.

Physics C: Mechanics provides instruction in each of the following six content areas: kinematics; Newton's laws of motion; work, energy and power; systems of particles and linear momentum; circular motion and rotation; and oscillations and gravitation. It should be noted that although fewer topics are covered in Physics C, they are covered in greater depth and with greater analytical and mathematical sophistication, including calculus applications.

COURSE TITLE: PSC 240 – PHYSICS I – DUAL CREDIT (PSC240MIDDC)

COURSE NO: 800021QRC15

LEVELS: 11, 12

CREDIT: 1

FEES: ALL STUDENTS ARE RESPONSIBLE FOR THE DUAL CREDIT FEE AND TEXTBOOK.

Course is the first of a two-semester sequence in general physics, including mechanics, heat, thermodynamics, sound and wave motion. Students must earn a "C" or better to earn college credit.

COURSE TITLE: AP CHEMISTRY/AP CHEMISTRY LAB

COURSE NO: 304526

LEVELS: 11, 12

CREDIT: 2

PREREQUISITES: CHEMISTRY I

FEES: PURCHASE OF SAFETY GOGGLES IS REQUIRED

FEES: ALL STUDENTS ARE ENCOURAGED TO TAKE THE AP EXAM. ESTIMATED COST OF THE AP EXAM IS \$100.

This course is comparable to a freshman level college chemistry course. It includes a study of the principles of chemistry and their applications to inorganic chemistry. The emphasis is on stoichiometry, structure, physical principles, and the reactivity of inorganic compounds. Labs for the course are often the same as the labs in freshman level college chemistry courses are included where appropriate for the high school setting.

COURSE TITLE: CHEM170MIDDC & CHEM171MIDDC- CHEM 170 AND 171 CHEMISTRY – DUAL CREDIT

COURSE NO: SEE BELOW

LEVELS: 11, 12

CREDIT: 2

CHEM170 (class) - 800041NSC6

CHEM171 (lab) - 800041NSC7

*These are 2 separate courses (2 class periods).

PREREQUISITES: CHEMISTRY I

FEES: PURCHASE OF SAFETY GOGGLES IS REQUIRED

FEES: ALL STUDENTS ARE RESPONSIBLE FOR THE DUAL CREDIT FEE AND TEXTBOOK.

This course is the systematic study of the principles of chemistry. Topics include chemical measurement, elements, compounds, reactions, stoichiometry, thermochemistry, gas, liquids, solids,

atomic structure, bonding, and descriptive chemistry of important elements and compounds. The class will also follow the AP College Board curriculum for preparation of the AP Chemistry II test, if student so chooses to take. Students must earn a “C” or better to earn college credit.

COURSE TITLE: AP ENVIRONMENTAL SCIENCE

COURSE NO: 304622

LEVELS: 11, 12

CREDIT: 1

PREREQUISITES: BIOLOGY I

FEES: ALL STUDENTS ARE ENCOURAGED TO TAKE THE AP EXAM. ESTIMATED COST OF THE AP EXAM IS \$100.

The AP Environmental Science course is a challenging year-long science course designed to be the equivalent of a one-semester first year college course. Maturity, motivation, study habits, invested time and effort, and reading and writing abilities will contribute greatly to individual student success in this course. This course is designed to prepare students for the college level Advanced Placement Environmental Science Examination and is based on the curriculum established by the College Board. This course will examine the interrelationships of the natural world and the human influence on the environment. Students will specifically examine concepts concerning energy resources and consumption, pollution, biodiversity, and global climate change. This class requires learning at an accelerated pace due to the amount and complexity of the required material. **Students enrolling in the Advanced Placement Environmental Science course should have a strong foundation in biology.**

SOCIAL STUDIES

COURSE TITLE: GLOBAL STUDIES

COURSE NO: 451038

LEVELS: 9

CREDIT: 1

This course will incorporate 3 strands of Social Studies Curriculum, Geography, Economics and Government. Successful completion of this course meets the Freshmen Level Social Studies requirement for graduation. The first semester will be spent discussing and investigating the structure and operation of our national government, the meaning and practice of democracy, power relationships, civil rights and liberties, and the American method of conducting elections. During the second semester, students will transition into Economics where classes will study macroeconomics and microeconomics with an emphasis in entrepreneurship. Students will end the year with a section of geography in which they will analyze cultures and issues around the world. They will also be asked to gain a global perspective on the balance of politics and economics around the world.

COURSE TITLE: AP HUMAN GEOGRAPHY

COURSE NO: 450712

LEVELS: 9, 10, 11 & 12

CREDIT: 1

PREREQUISITES: PERMISSION FROM 8TH GRADE TEACHER

FEES: ALL STUDENTS ARE ENCOURAGED TO TAKE THE AP EXAM. ESTIMATED COST OF THE AP EXAM IS \$100.

AP Human Geography will provide students with the knowledge and skills that will enhance their understanding of geography by utilizing geographic processes to systematically study and understand spatial patterns in their community, the nation, and the world. The course will focus on issues related to population, culture, politics, economics, and the environment from a geographical perspective. Utilizing new technologies such as Geographic Information System (GIS) and basic statistical skills, students will be able to analyze and interpret geographic data. The course will prepare students to take the AP Human Geography exam and give them the opportunity to earn college credit in geography. This course is an acceptable replacement for Global Studies or may be taken as an elective.

COURSE TITLE: WORLD HISTORY (1300 TO PRESENT)

COURSE NO: 450835

LEVELS: 10

CREDIT: 1

World History provides instruction to students in the social, political, and economic history of our world from the Renaissance to the present, with a focus on western civilizations. The objective of the course is for students to learn how the events, ideas, and people of the past contributed to the development of our contemporary world. Students will encounter and learn to practice the use of primary source analysis, critical thinking, reading, and writing to learn the discipline of history and improve their skills as students. Successful completion of this course meets the Sophomore Level Social Studies requirement for graduation.

COURSE TITLE: AP EUROPEAN HISTORY

COURSE NO: 450844

LEVELS: 10, 11 & 12

CREDIT: 1

PREREQUISITES: GLOBAL STUDIES or AP HUMAN GEOGRAPHY

FEES: ALL STUDENTS ARE ENCOURAGED TO TAKE THE AP EXAM. ESTIMATED COST OF THE AP EXAM IS \$100.

Advanced Placement European History is a college level survey course of the social, political, and economic history of Europe from 1450 to present. This course is an excellent introduction to the AP program, and provides all students with the necessary practice in reading, writing, and study skills necessary for college success. Students should expect a fast pace, daily reading assignments, and regular essay assignments. The objective of this course is to develop (a) an understanding of some of the principal themes in modern European History; (b) an ability to analyze historical evidence and historical interpretation; and (c) an ability to express historical understanding in writing. Students may obtain college credit if their score on the AP European History Exam in May meets the criteria for this credit at their select college or university. Successful completion of this Social Studies elective course meets the World History requirement for graduation.

COURSE TITLE: US HISTORY (RECONSTRUCTION TO PRESENT)

COURSE NO: 450812

LEVELS: 11

CREDIT: 1

This is an applied course designed for students who need a general understanding and appreciation for the history of the United States. The course will be designed to assist students in becoming an effective U.S. citizen by studying

the development, growth, and progress of the United States. Major emphasis will be on post-Reconstruction events with primary attention given to 20th century U.S. History and the shaping of current geo-political trends today. Successful completion of this course meets the Junior Level Social Studies requirement for graduation.

COURSE TITLE: HIS140MIDDC AND HIS141MIDDC - HIS 140 AND 141 US HISTORY– DUAL CREDIT

COURSE NO: SEE BELOW

LEVELS: 11, 12

CREDIT: 1

HIS140- 800051SSC9

HIS141- 800051SSC10

PREREQUISITES: WORLD HISTORY or AP EUROPEAN HISTORY

FEES: ALL STUDENTS ARE RESPONSIBLE FOR THE DUAL CREDIT FEE AND TEXTBOOK.

This course, in the fall, is a general survey of the development of the American nation from the discovery of the new world to the end of the Civil War. The course encompasses the nation's constitutional, political, economic, and social development. Spring semester is a general survey of the development of the American nation since 1865. The course emphasizes Reconstruction, American influence in the world, and changing race relations and sex role relations in American society. Students must earn a "C" or better to earn college credit.

COURSE TITLE: AP US HISTORY

COURSE NO: 450814

LEVELS: 11

CREDIT: 1

PREREQUISITES: WORLD HISTORY or AP EUROPEAN HISTORY

FEES: ESTIMATED COST OF THE AP EXAM IS \$100 and students must register for the exam in the Fall semester. Late registration for the exam will cost an additional \$40. Failure to show up and take the exam will also cost \$40 to send the untaken exam back to the College Board.

This course is a survey course of US History and covers everything from the Columbian Period to the Clinton Administration. This course is a college level class and students who are enrolled in the class are expected to view it in that manner. The course requires extensive reading, writing, and frequent assessments. Students enrolled in the class should be capable to handle the responsibilities that come with being in an AP level class.

Students in this course will be required to complete a summer reading assignment and complete three essays as well. Students will be required to submit the essays to instructor over the summer break and will take a test during the first week of school over the summer reading. The summer essays and summer reading test will count as a grade and will be reflected in the first nine weeks grading. If a student decides to transfer from the APUSH class to another US History class, those grades will transfer to the new class.

Students may obtain college credit if their score on the AP U.S. History Exam in May meets the criteria for this credit at their selected college or university. (for most colleges and universities this is a 3 or higher) This class is a Social Studies elective. If students have any questions or concerns, they may meet with instructor. Successful completion of this class will meet the U.S. History requirement for graduation.

SOCIAL STUDIES ELECTIVES

COURSE TITLE: AP US GOVERNMENT

COURSE NO: 451030

LEVELS: 11 & 12

CREDIT: 1

FEES: ALL STUDENTS ARE ENCOURAGED TO TAKE THE AP EXAM. ESTIMATED COST OF THE AP EXAM IS \$100.

PREREQUISITES: PERMISSION/RECOMMENDATION FROM US HISTORY & ENGLISH TEACHERS

AP U.S. Government and Politics is a pre-college-level introduction course that not only helps students understand the U.S. Constitution and the American political system, but will also help them become informed citizens who are willing to preserve, protect, and defend the rights and liberties at the core of our nation's charter. This course offers students the opportunity to see how individuals and their ideas can shape the world in which they live; it invites them to explore central questions of liberty and justice in practice. Five Big Idea Topics for the class include: Constitutional Democracy, Civil Liberties, Civil Rights, American Political Culture and Beliefs, Political Participation, and Interaction among Branches. Students are also responsible for current event assignments designed to enhance their competition skills. The class will focus on the general skills of research, writing, public speaking, team work, and analytical thinking. This course will be especially useful and interesting for those considering a future in law, politics, and government. Summer work may be required.

COURSE TITLE: GOVERNMENT & CIVICS**COURSE NO:** 451031**LEVELS:** 10, 11, & 12**CREDIT:** 1

The Civics course provides students with a detailed study of the philosophical thinking that influenced the founders of the United States, the development of the U.S. Constitution, the powers and responsibilities of each branch of government. Additional coursework focuses on racial identity, segregation, Plessy v. Fergusson, Jim Crow Laws, De jure vs. De facto segregation, Brown v. Board of Education the Civil Rights Act of 1964, and the Voting Rights Act of 1965. Students investigate the issues of democratic government and analyze the consequences of democratic governments and the decisions made by governments that infringe upon individual freedoms and rights. Contemporary examples of national as well as global real life issues will help demonstrate many of the concepts defined in class. These examples include, but are not limited to, voting rights, flag burning, gun control, abortion, women's rights, death penalty, and health care. This class meets the requirements for government for students who took AP Human Geography.

COURSE TITLE: PSYCHOLOGY**COURSE NO:** 459901**LEVELS:** 11 & 12**CREDIT:** 1

Psychology is an introduction to the scientific study of behavior. The course is designed to examine the behavior of human beings and lower animals in an attempt to better understand human behavior and help each student obtain a comprehension of self and the relationship with others. Emphasis will be placed on an understanding of the basic principles in areas such as personality, learning, consciousness, memory, human development and mental dysfunction. Contemporary issues and research in the field of psychology will be integrated into the course throughout.

COURSE TITLE: AP PSYCHOLOGY**COURSE NO:** 459902**LEVELS:** 12**CREDIT:** 1**PREREQUISITE:** Psychology**FEES: ALL STUDENTS ARE ENCOURAGED TO TAKE THE AP EXAM. ESTIMATED COST FOR AP EXAM IS \$100.**

Psychology AP is a challenging and rigorous course which will provide exposure to vast areas of Psychology including, but not limited to areas recommended by the College Board. High level reading skills and a willingness to verbally participate in discussions of higher order thinking is critical to success in this course. The method of study in the course includes lecture/discussion, analytical writing, case study methods integrated with outside reading, project based activities and integrated clinical experience exposure designed to enhance the learning. This class is a Social Studies elective designed for the student who possesses the motivation and maturity level necessary to investigate the content material of the discipline. If students have any questions or concerns, they may meet with instructor.

COURSE TITLE: PSY180MIDDC - PSY 180 - PSYCHOLOGY – DUAL CREDIT**COURSE NO:** 800051SSC14**LEVELS:** 12**CREDIT:** 1**FEES: ALL STUDENTS ARE RESPONSIBLE FOR THE DUAL CREDIT FEE AND TEXTBOOK.**

This course is designed as an introduction to major concepts and principles in the field of psychology and does not assume prior background in the discipline. This course will survey the range of major topics studied by psychologists, including neuroscience, lifespan development, social interaction, personality, cognition, learning and mental health issues. Emphasis is placed on practical illustrations and on integrating aspects of these sub-areas into a coherent understanding of human behavior. Student must earn a "C" or better to receive dual credit.

COURSE TITLE: SOC120MIDDC - SOC 120 – PRINCIPLES OF SOCIOLOGY – DUAL CREDIT**COURSE NO:** 800051SSC17**LEVELS:** 11 & 12**CREDIT:** 1**FEES: ALL STUDENTS ARE RESPONSIBLE FOR THE DUAL CREDIT FEE AND TEXTBOOK.**

This course is an introduction to the elements and concepts of culture, groups, collective behavior, institutions and social change. Contemporary social issues are explored. Student must earn a "C" or better to receive dual credit.

COURSE TITLE: MINORITY/AFRICAN AMERICAN STUDIES**COURSE NO:** 450877**LEVELS:** 10, 11 & 12**CREDIT:** 1

This course is designed to offer students the opportunity to explore the impact in which women and minority groups

have had on World History. This course focuses on women's issues from antiquity to the modern day, with emphasis on gender roles and the power struggles between the sexes. This course also looks at the impact minorities had on the creation of America, as well as the struggle of minority groups across the world.

COURSE TITLE: CONTEMPORARY US HISTORY- COLD WAR C1 (FORMERLY HISTORY IN FILM: THE COLD WAR)

COURSE NO:450878

LEVELS: 11 &12

CREDIT:1

PREREQUISITES: GLOBAL STUDIES, AND WORLD HISTORY OR AP EUROPEAN HISTORY, AND U.S. HISTORY OR AP U.S. HISTORY.

This course will focus on the causes and effects of the Cold War on both American and World History. The course will allow students to gain more insight into the era of the Cold War due to limited coverage of the topic in regular U.S. and World History courses. The course will focus on five themes of the Cold War: From Allies to Enemies, The Cold War at home, Spy vs. Spy, Pawns of War, and The Cold War Thaws. Students will be using both primary source readings and selected films and documentaries of the time period to gain insight into the content

COURSE TITLE: PHILOSOPHY

COURSE NO: 451121C2

LEVELS: 10, 11 & 12

CREDIT: 1

This course is designed to introduce the various disciplines of philosophy and to encourage basic philosophic thought. Through *extensive* reading and discussion, students will seek to answer philosophic questions such as, "What is the nature of reality?" "What is knowledge?" More importantly, philosophy promotes self-reflection, reasoning, collaboration, and the ability to logically and intelligently discuss and analyze various arguments and propositions.

COURSE TITLE: MODERN WH- CURRENT EVENT C1

COURSE NO: 450837C1

LEVELS: 10, 11 & 12

CREDIT: 1

The course will focus on U.S. and international current event topics as well as contemporary social issues around the globe. The course will follow two strands: Students will follow current day-to-day domestic and international news events. At the same time, the class will study current event units such as immigration, global warming & other environmental issues, child soldiers, the Israeli-Palestinian conflict. Students will develop critical thinking, oratory, and writing skills as they learn to evaluate the actions of parties involved and critically discuss the implications of events on today's world.

AIR FORCE JUNIOR RESERVE OFFICER TRAINING CORPS (JROTC)

This program is to build better citizens for America. More specifically, the program is designed to educate and train high school cadets in citizenship; promote community service; instill responsibility, character and self-discipline; lay the foundation for a life-time wellness perspective; and provide instruction in air and space fundamentals. The course is divided into three focus areas Leadership Education/Drill (LE), Aerospace Science (AS) and Wellness. Cadets are issued a uniform at no cost to the student and are required to wear various combinations of uniforms periodically as directed by the Senior Aerospace Science Instructor.

Note the successful completion of a full year of AFJROTC I meets the PE requirement for graduation. A 1/2 credit of Health is required in addition to JROTC to meet the state Health requirement. This requirement can be met through APEX online. Please contact your guidance counselor to set this up. Students that successfully complete the sequence of courses within an approved AFJROTC program will receive a Certificate of Training and are recommended for promotion within a branch of the military. The Kentucky office of Career and Technical Education (OCTE) recognizes the military as a viable career pathway. The military career pathway is recognized within the Government and Public Safety Career Cluster. Thus, AFJROTC will be included in the college and career readiness accountability model. In order to achieve career ready status, a student must be a senior preparatory student enrolled in the AFJROTC career pathway. The student must pass the ASVAB (50th percentile or higher) or WorkKeys (Silver Certificate: 4 or above on the Applied Math, Locating Information, and Reading for Information) assessments in addition to achieving the Certificate of Training.

COURSE TITLE: AFJROTC-1

COURSE NO: 580134

LEVELS: 9, 10, 11, 12

CREDIT: 1

Aerospace Science I: Milestones in Aviation History

Milestones in Aviation History is designed to acquaint the student with significant developments of flight and the role of airpower in history. This is a review of the development of flight from ancient legions to the Persian Gulf Wars and beyond. Students will examine the roles of aviation in US history.

Leadership Education I: Traditions, Wellness, & Foundations of Citizenship

This section introduces cadets to the AFJROTC program providing a basis for progression through the rest of the AFJROTC program while instilling elements of good citizenship. It contains sections on cadet and Air Force organizational structure; uniform wear; customs, courtesies, and other military traditions; health and wellness; fitness; individual self-control; and citizenship. Basic drill is an integrated part of Leadership Education.

Wellness Program

The Wellness/Physical Fitness program is an integral part of the Air Force Junior ROTC program and incorporates the Cadet Health and Wellness Program (CHWP). The CHWP is an exercise program focused on individual base line improvements based on age and gender. The goal of the CHWP is to motivate JROTC cadets to lead active, healthy lifestyles beyond program requirements and into their adult lives.

COURSE TITLE: AFJROTC-II

COURSE NO: 580135

LEVELS: 10, 11, 12

CREDIT: 1

PREREQUISITES: SUCCESSFUL COMPLETION OF AFJROTC-I

Aerospace Science II: The Science of Flight

The second year course is designed to acquaint the student with the aerospace environment, the human requirements of flight, principles of aircraft flight, and principles of navigation. The course begins with a discussion of the atmosphere and weather. Students develop an understanding of the environment and how the environment affects flight. Discussions include the forces of lift, drag, thrust, and weight. Students also learn basic navigation including map reading, course plotting, and the effects of wind. The portion on the Human Requirements of Flight is a survey course on human physiology. Discussed here are the human circulatory system, the effects of acceleration and deceleration, and protective equipment.

Leadership Education II: Communication, Awareness and Leadership

This leadership course stresses communications skills and cadet corps activities. Information is provided on communicating effectively, understanding groups and teams, preparing for leadership, solving conflicts and

problems, and personal development. Written reports and speeches compliment the academic materials. Cadet corps activities include holding positions of greater responsibility in the planning and execution of corps projects.

Wellness Program

The Wellness/Physical Fitness program is an integral part of the Air Force Junior ROTC program and incorporates the Cadet Health and Wellness Program (CHWP). The CHWP is an exercise program focused on individual base line improvements based on age and gender. The goal of the CHWP is to motivate JROTC cadets to lead active, healthy lifestyles beyond program requirements and into their adult lives.

COURSE TITLE: AFJROTC III

COURSE NO: 580136

LEVELS: 11, 12

CREDIT: 1

PREREQUISITES: SUCCESSFUL COMPLETION OF AFJROTC-II

Aerospace Science III: Exploring Space: The Higher Frontier

Exploring Space begins with the study of the space environment from the earliest days of interest in astronomy and early ideas of the heavens, through the Renaissance, and on into modern astronomy. It provides an in-depth study of the Earth, sun, stars, moon, and Solar System, including the terrestrial and the outer planets. It discusses issues critical to travel in the upper atmosphere – such as orbits and trajectories – unmanned satellites and space probes. It investigates the importance of entering space and discusses manned and unmanned missions, focusing on concepts surrounding spaceflight, space vehicles, launch systems, and safety.

Leadership Education III: Life Skills and Career Opportunities

This course will help students decide which path to take after high school. Information on how to apply for admission to college or to a vocational or technical school is included. Information on how to begin the job search is available to students who decide not to go to college or vocational school. Instruction is provided about financial planning and how to save, invest, and spend money wisely, as well as how not to get caught in the credit trap. Students are informed about real life issues such as understanding contracts, leases, wills, warranties, legal notices, and personal bills. Citizen responsibilities such as registering to vote, jury duty, and draft registration are also discussed. There is also information on how to prepare a résumé and the importance of good interviewing skills. If students are interested in a career in the military, with the federal government, or an aerospace career, information is also provided for them.

Wellness Program

The Wellness/Physical Fitness program is an integral part of the Air Force Junior ROTC program and incorporates the Cadet Health and Wellness Program (CHWP). The CHWP is an exercise program focused on individual base line improvements based on age and gender. The goal of the CHWP is to motivate JROTC cadets to lead active, healthy lifestyles beyond program requirements and into their adult lives.

COURSE TITLE: AFJROTC IV

COURSE NO: 580137

LEVELS: 12

CREDIT: 1

PREREQUISITES: SUCCESSFUL COMPLETION OF AFJROTC-III

Aerospace Science IV: Cultural Studies: An Introduction to Global Awareness

Cultural Studies: An Introduction to Global Awareness is a customized course about the world's cultures. The course is specifically created for the US Army, Marine Corps, Navy, and Air Force Junior ROTC programs. It is designed to introduce students to the study of world affairs, regional studies, and cultural awareness. It delves into history, geography, religions, languages, culture, political systems, economics, social issues, environmental concerns, and human rights. It looks at major events and significant figures that have shaped each region.

Leadership Education IV: Principles of Management

This course provides exposure to the fundamentals of management. The text contains many leadership topics that will benefit students as well as provide them with some of the necessary skills needed to put into practice what they have learned during their time in AFJROTC. This course, coupled with what cadets have already learned during their time in AFJROTC, will equip them with the qualities needed to serve in leadership positions within the corps. Throughout the text are many ethical dilemmas, case studies, and role play activities built into the lessons. These activities are based on real life experiences and will allow students the opportunity to practice what they learn by getting involved in discussions and expressing their opinions.

Wellness Program

The Wellness/Physical Fitness program is an integral part of the Air Force Junior ROTC program and incorporates the Cadet Health and Wellness Program (CHWP). The CHWP is an exercise program focused on individual base line improvements based on age and gender. The goal of the CHWP is to motivate JROTC cadets to lead active, healthy lifestyles beyond program requirements and into their adult lives.

COURSE TITLE: AFJROTC DRILL

COURSE NO: See below

LEVELS: 10, 11, 12

CREDIT: 1

YEAR 1 - 580138C1

YEAR 2 - 580138C2

YEAR 3 – 580138C3

PREREQUISITES: 1. SUCCESSFUL COMPLETION OF AFJROTC-I
2. CURRENTLY IN ENROLLED IN AFJROTC II, III, OR IV
3. PERMISSION OF THE SENIOR AEROSPACE SCIENCE INSTRUCTOR.

Cadets will develop drill skills to enable them to complete in JROTC competition events and to develop skills so they may instruct cadets in regular AFJROTC classes. Cadets will be required to learn advanced drill sequences for both armed and unarmed drill. Cadets must be available to travel to drill competitions and willing to participate as required in co-curricular drill practices. This will require some after school practice sessions.

SPECIAL PROGRAMS

COURSE TITLE: YEARBOOK I AND II

COURSE NO: SEE BELOW

LEVELS: 11, 12

CREDIT: 1

YEARBOOK 1: 239141C1

YEARBOOK 2: 239141C2

PREREQUISITES: PERMISSION OF INSTRUCTOR

This class is designed to produce the yearbook at FCHS. Time spent after school and in the summer selling ADS, which fund the Yearbook program, is required and counts toward the 1st 9 week grade. There are also out-of-class assignments, such as photo ops for school events that are required and must be performed for a grade. All aspects of the yearbook will be covered. (May be repeated with instructor's approval.)

COURSE TITLE: OFFICE/STAFF AIDE (LIBRARYAIDE)

COURSE NO: 909020

LEVELS: 11, 12

CREDIT: 1

PREREQUISITES: PERMISSION OF INSTRUCTOR

This course is designed for students to get real world experience helping in a classroom/library/office setting. Students requesting this class are also required to fill out the Aide Form to indicate areas of interest for placement. Due to the independent nature of the course, students will be screened by administration before being placed. The front office, library, and STEP room positions will be filled first. Teachers are limited to one aide per year unless the numbers justify receiving an additional student helper.

COURSE TITLE: EDU103MIDDC- EDU 103: INTRODUCTION TO EDUCATION – DUAL CREDIT

COURSE NO: 331032DMID

LEVELS: 12

CREDIT: 1

FEES: ALL STUDENTS ARE RESPONSIBLE FOR THE DUAL CREDIT FEE AND TEXTBOOK.

This course is an introduction to teaching. The role of education in contemporary society, the history of education, and the nature of teaching is explored. Students must earn a "C" or better to earn college credit.

COURSE TITLE: PEER TUTORING (COMMUNITY HANDS)

COURSE NO: SEE BELOW

LEVELS: 10, 11, 12

CREDIT: 1

PEER TUTORING (C1- YEAR 1) – 906010C1

PEER TUTORING (C2- YEAR 2 – 906010C2

PEER TUTORING (C3- YEAR 3) – 906010C3

PREREQUISITES: PERMISSION OF INSTRUCTOR

Community Hands is a peer tutoring program designed for juniors and seniors. Peer tutors will be working with students with moderate mental and physical disabilities. Tutors will learn about career opportunities, current laws dealing with students with disabilities, and various instructional strategies and techniques and leadership skills. Tutors are encouraged to attend one community based instruction field trip per month to help model appropriate behavior and skills in the community.

COURSE TITLE: STLP

COURSE NO: 904030

LEVELS: 9, 10, 11, 12

CREDIT: 1

PREREQUISITE: PERMISSION OF INSTRUCTOR

(Career Pathway: Information and Support Services—Course Sequence #4)

Student Technology Leadership Program (STLP™) uses project-based learning principals to empower student learning and achievement through the utilization (and creation) of technology-based solutions for school and community needs. Students in STLP may be responsible for maintaining current technology programs at the school. They may also assist district technicians with technology integration and troubleshooting on an as-needed basis. STLP students may also attend the Fall Showcase competition in the Fall and the State STLP competition in the Spring.

COURSE TITLE: HELP DESK OPERATIONS

COURSE NO: 110102

LEVELS: FC – 9, 10, 11, 12

CREDIT: 1

PREREQUISITES: INCOMING 9th GRADERS MUST HAVE A RECOMMENDATION FROM THE MIDDLE SCHOOL STC OR SCHOOL TECHNICIAN.

This class introduces a variety of tools and techniques to provide user support in help desk operations. Students learn the ins and outs of repairing chromebooks and other devices and will also be involved in helping troubleshoot a variety of issues for staff and students.

COURSE NO: 110102

LEVELS: CTC – 11, 12

CREDIT: 1

PREREQUISITES: COMPLETION OF 2 COURSES IN THE PATHWAY, “C” AVERAGE IN PATHWAY CLASSES, AND GOOD, REGULAR ATTENDANCE, AND INSTRUCTOR PERMISSION.

This class introduces a variety of tools and techniques to provide user support in help desk operations. Students explore service skills, troubleshooting problems, needs analysis, facilities management, and other topics to end user support. Students will be officially interning with the local school district solving network, hardware and software issues at the Career and Technical Center. Students will design and produce signage (posters, decals, banners, etc.) for the local school district and community.

COURSE TITLE: STUDY SKILLS/MASTERY PREP COURSE

COURSE NO: 904010C5

LEVELS: 11, 12

CREDIT: 1

This course helps to prepare students for ACT-like assessments in the areas of English, math, reading, and science. Students will rotate to each area for 9 weeks and use the Mastery Prep course materials.

COURSE TITLE: JAG (YEAR 1 & 2)

COURSE NO: SEE BELOW

LEVELS: 10, 11, 12

CREDIT: 1

JAG (YEAR 1) - 320107

JAGC2 (YEAR 2) – 320107C2

JAG KY is an affiliate of Jobs for America's Graduates (JAG), www.jag.org, a national non-profit organization dedicated to reconnecting students academically by helping them overcome barriers to graduation and helping them transition into postsecondary education, the workforce or the military after graduation.

JAG's competency-based curriculum educates students in areas of career development, job attainment and retention, leadership, financial literacy and numerous other life skills, all of which enhance a student's employability and likelihood of success upon graduation.

CTC OFFERINGS

AUTOMOTIVE TECHNOLOGY

COURSE TITLE: AUTO I: AMLR- SECTION A

COURSE NO: 470507 **LEVELS:** 9, 10, 11, 12 **CREDIT:** 1

This course involves the operational theory and application of hydraulic and anti-lock brake systems; disc and drum brakes are discussed and worked on in the laboratory. Modern technology in automobiles is resulting in a more safe experience for the driver and passengers by making the car smarter about dangers that are approaching. The braking system is not to be taken lightly when considering how to stop a massive amount of weight and cargo quickly. Additionally, this course focuses on the theory and principles relating to automotive electrical/electronic components. With thirty (30) plus computers on any given car today, it is essential for the technician of today and tomorrow to have a thorough understanding of computer technology and the electrical system it depends upon to function properly.

COURSE TITLE: AUTO II: AMLR- SECTION B

COURSE NO: 470509 **LEVELS:** 10, 11, 12 **CREDIT:** 1

PREREQUISITE: COMPLETION OF AUTO I

This year long course covers two (2) areas within the maintenance light repair curriculum. They are Engine Performance along with EP Lab and Engine Repair along with ER Lab. These courses present the theory, component identification, operation, diagnosis, and the service and repair of Engines, and Engine Performance Systems. In all areas, appropriate theory, safety, and support instruction will be taught and required for performing each task. The instruction will also include identification and use of appropriate tools and testing/measurement equipment required to accomplish certain tasks. The student will also locate and use current reference and training materials from accepted industry publications and resources, and write industry standard work orders.

This course also presents the comprehensive diagnostics of on-board computer control systems. The problem solving process, including flow chart reading, will be presented. Maximizing the performance of the engine considers fuel efficiency as well as the horsepower it is able to produce. Understanding the control systems and how to make the vehicle perform at greater efficiency will be one of the many targets for this course.

COURSE TITLE: AUTO III: AMLR- SECTION C

COURSE NO: 470511 **LEVELS:** 10, 11, 12 **CREDIT:** 1

PREREQUISITE: COMPLETION OF AUTO II

These courses introduce the student to the principles, theories, and concepts of Automotive Technology, and include instruction in Suspension and Steering Systems and Automatic and Manual Transmission. In all areas, appropriate theory, safety, and support instruction will be taught and required for performing each task, including proper care and cleaning of customers' vehicles. The instruction will also include identification and use of appropriate tools and testing/measurement equipment required to accomplish certain tasks. The student will also receive the necessary training to locate and use current reference and training materials from accepted industry publications and resources, and demonstrate the ability to write work orders. This course also involves the study of the operating principles of rear and front wheel drive automatic transmissions and transaxles, and the testing and diagnostic process. This course also involves an in-depth study of principles of operation, construction, and service of manual transmissions and related drivetrain components (differentials, clutches, u-joints, rear wheel drive and 4-wheel drive).

COURSE TITLE: AUTO IV: AMLR-SECTION D

COURSE NO: 470513 **LEVELS:** 11, 12 **CREDIT:** 1

PREREQUISITE: COMPLETION OF AUTO III

These courses introduce the student to the principles, theories, and concepts of Automotive Technology, and include instruction in A/C Climate Control . In all areas, appropriate theory, safety, and support instruction will be taught and required for performing each task, including proper care and cleaning of customers' vehicles. The instruction will also include identification and use of appropriate tools and testing/measurement equipment required to accomplish certain tasks. The student will also receive the necessary training to locate and use current reference and

training materials from accepted industry publications and resources, and demonstrate the ability to write work orders.

COURSE TITLE: CO-OP AUTO

COURSE NO: SEE BELOW

LEVELS: 12

CREDIT: 1-3

1hr: 470501CO1

2hrs: 470501CO2

3hrs: 470501CO3

PREREQUISITES: Must have completed two courses on the pathway and be enrolled in the third course, have a “C” average on the pathway, and have good regular attendance (not considered truant).

Cooperative Education I (480541) provides supervised on-the-job work experience related to the students' educational objectives. To be enrolled in the Cooperative Education course, 705 KAR 4:041. Cooperative Program Standards must be followed. The pathway teacher and director for CTE must approve all students to be enrolled in the cooperative education program. Students who participate receive a salary for these experiences, in accordance with local, state and federal minimum wage requirements according to the Work Based Learning Guide.

CONSTRUCTION/CARPENTRY

COURSE TITLE: CARPENTRY 1 – INTRODUCTION TO CONSTRUCTION TECHNOLOGY

COURSE NO: 460201

LEVELS: 9, 10, 11, 12

CREDIT: 1

This course is the introduction to the construction carpentry industry. The class will emphasize safe and proper methods of operating hand tools, portable power tools, and stationary power tools in the construction industry. As a part of every carpentry class, Industrial Safety (460301) will be incorporated due to the nature of the courses. This course provides practical training in industrial safety. The students are taught to observe general safety rules and regulations, to apply work site and shop safety rules, and to apply OSHA regulations. Students are expected to obtain certification in first aid and cardiopulmonary resuscitation.

*DUAL CREDIT OPTION FOR THIS COURSE:

CAR126 CARPENTRY I

COURSE NO: 460201DBCTC

COURSE TITLE: CARPENTRY II – FLOOR AND WALL FRAMING

COURSE NO: 460212

LEVELS: 10, 11, 12

CREDIT: 1

PREREQUISITES: Completion of Carpentry I

The student will practice floor framing, layout, and construction of floor frames. Cutting and installing floor and wall framing members according to plans and specifications will also be practiced. As a part of every carpentry class, Industrial Safety (460301) will be incorporated due to the nature of the courses. This course provides practical training in industrial safety. The students are taught to observe general safety rules and regulations, to apply work site and shop safety rules, and to apply OSHA regulations. Students are expected to obtain certification in first aid and cardiopulmonary resuscitation.

*DUAL CREDIT OPTION FOR THIS COURSE:

CAR140 CARPENTRY II

COURSE NO: 460212DBCTC

COURSE TITLE: CARPENTRY III – CEILING AND ROOF FRAMING

COURSE NO: 460213

LEVELS: 10, 11, 12

CREDIT: 1

PREREQUISITES: Completion of CARPENTRY I AND II

This course covers roof types and combinations of roof types used in the construction industry. The emphasis of this course is on layout, cutting and installing ceiling joists, rafters, roof decking, and roof coverings. As a part of every carpentry class, Industrial Safety (460301) will be incorporated due to the nature of the courses. This course provides practical training in industrial safety. The students are taught to observe general safety rules and

regulations, to apply work site and shop safety rules, and to apply OSHA regulations. Students are expected to obtain certification in first aid and cardiopulmonary resuscitation.

*DUAL CREDIT OPTION FOR THIS COURSE:

CAR190 CARPENTRY III

COURSE NO: 460213DBCTC

COURSE TITLE: CARPENTRY IV – EXTERIOR and INTERIOR FINISHING

COURSE NO: 460219

LEVELS: 11, 12

CREDIT: 1

PREREQUISITES: Completion of CARPENTRY I, II, AND III

This course presents basic concepts of building trim, gypsum wallboard, paneling, base, ceiling and wall molding with instruction on acoustical ceilings and insulation, wood floors, tile, inlaid adhesive and tools of the flooring trade. This course will continue to refine the techniques and skills taught in the previous carpentry courses. In this course, cost control, speed, and precision are emphasized. In addition, students will demonstrate the skills associated with the exterior finishing of a house.

*DUAL CREDIT OPTION FOR THIS COURSE:

CAR196 CARPENTRY IV

COURSE NO: 460219DBCTC

COURSE TITLE: CO-OP CARPENTRY

COURSE NO: SEE BELOW

LEVELS: 12

CREDIT: 1-3

1hr: 460242CO1

2hrs: 460242CO2

3hrs: 460242CO3

PREREQUISITES: Must have completed two courses on the pathway and be enrolled in the third course, have a “C” average on the pathway, and have good regular attendance (not considered truant).

Cooperative Education I (480541) provides supervised on-the-job work experience related to the students' educational objectives. To be enrolled in the Cooperative Education course, 705 KAR 4:041. Cooperative Program Standards must be followed. The pathway teacher and director for CTE must approve all students to be enrolled in the cooperative education program. Students who participate receive a salary for these experiences, in accordance with local, state and federal minimum wage requirements according to the Work Based Learning Guide

COMPUTER SCIENCE

***COURSE TITLE: DIGITAL LITERACY**

COURSE NO: 060112

LEVELS: 9, 10, 11, 12

CREDIT: 1

(This course is given at the high school)

Introduces students to the main components of computer literacy including Computer Fundamentals, Key Applications and Living Online. Provides an introduction to the computer and the convergence of technology as used in today's global environment. Introduces topics including computer hardware and software, file management, the Internet, e-mail, the social web, green computing, security and computer ethics. Presents basic use of application, programming, systems and utility software. Basic keyboarding skills are strongly recommended.

COURSE TITLE: WEB PAGE DEVELOPMENT

COURSE NO: 110801

LEVELS: 9, 10, 11, 12

CREDIT: 1

Web Page Design using HTML will be introduced. Creating web documents using a simple text editor will be the main focus. How to use a simple web editor will also be covered. Features such as layout, tables, images, forms, frames and the incorporation of sound and video will be explored. Developing site specifications and methods to increase the appeal and effectiveness of web sites are included. How to prepare web documents appropriate for use in business and professional web sites will be covered. Also, this course introduces CSS and emphasizes W3C web design and accessibility standards. In addition to the coding of a webpage, students will be introduced to the visual

and artistic components of web design. The students will learn how to use programs such as Photoshop and Illustrator to format and design backgrounds, buttons, images, etc. to enhance their pages. Students will also be exposed to some videography and photography which will also enhance the web sites.

***DUAL CREDIT OFFERED FOR THIS COURSE**

COURSE NAME: IMD133BCTCDC

COURSE NUMBER: 110801DBCTC

COURSE TITLE: SPECIAL TOPICS WEB DEVELOPMENT

COURSE NO: 110852

LEVELS: 11, 12

CREDIT: 1

This course introduces students to the trends, theory and methods of digital media for traditional print and electronic publication, including pixel-based and vector graphics, principles of media design, and conceptualization and translation of ideas into visual form.

COURSE TITLE: COMPUTER HARDWARE and SOFTWARE MAINTENANCE

COURSE NO: 110101

LEVELS: 9, 10, 11, 12

CREDIT: 1

Focuses on the design of computing systems, including instruction in the principles of computer hardware and software components, algorithms, data basis, telecommunications, etc. Includes the knowledge to identify and explain PC components, setup a basic PC workstation, conduct basic software installation, identify compatibility issues and recognize/prevent basic security risks and also gives knowledge in the areas of Green IT and preventative maintenance of computers.

COURSE TITLE: HELP DESK OPERATIONS

COURSE NO: 110102

LEVELS: 11, 12

CREDIT: 1

PREREQUISITES: COMPLETION OF 2 COURSES IN THE PATHWAY, "C" AVERAGE IN PATHWAY CLASSES, AND INSTRUCTOR PERMISSION.

This class introduces a variety of tools and techniques to provide user support in help desk operations. Students explore service skills, troubleshooting problems, needs analysis, facilities management, and other topics to end user support. Students will be officially interning with the local school district solving network, hardware and software issues at the Career and Technical Center. Students will design and produce signage (posters, decals, banners, etc.) for the local school district and community.

COURSE TITLE: COMP SCI CO-OP (COMPUTER SCIENCE CO-OP)

COURSE NO: SEE BELOW

LEVELS: 12

CREDIT: 1-3

1hr: 110918CO1

2hrs: 110918CO2

3hrs: 110918CO3

PREREQUISITES: Must have completed two courses on the pathway and be enrolled in the third course, have a "C" average on the pathway, and have good regular attendance (not considered truant).

Cooperative Education I (480541) provides supervised on-the-job work experience related to the students' educational objectives. To be enrolled in the Cooperative Education course, 705 KAR 4:041. Cooperative Program Standards must be followed. The pathway teacher and director for CTE must approve all students to be enrolled in the cooperative education program. Students who participate receive a salary for these experiences, in accordance with local, state and federal minimum wage requirements according to the Work Based Learning Guide.

HEALTH SCIENCE

COURSE TITLE: EMERGENCY PROCEDURES FOR HEALTHCARE PROFESSIONALS

COURSE NO: 170141

LEVELS: 9, 10, 11, 12

CREDIT: 1

This course will focus on potential emergency situations. It is designed to promote an understanding of standard precautions necessary for personal and professional health maintenance and infection control. Upon successful completion of the course, the student will demonstrate the necessary skills in First Aid and Cardiopulmonary

Resuscitation (CPR) and will be given the opportunity to take the completion examination as outlined by the sponsoring agency.

COURSE TITLE: PRINCIPLES OF HEALTH SCIENCE

COURSE NO: 170111

LEVELS: 10, 11, 12

CREDIT: 1

PREREQUISITE: EMERGENCY PROCEDURES

Principles of Health Science is an orientation and foundation for occupations and functions in any health care profession. The course includes broad healthcare core standards that specify the knowledge and skills needed by the vast majority of healthcare workers. The course focuses on exploring health career options, history of health care, ethical and legal responsibilities, leadership development, safety concepts, health care systems and processes and basic health care industry skills. Guest speakers and field trips will be utilized for enhancing the curriculum.

COURSE TITLE: BIO220KSUDC- MEDICAL TERMINOLOGY – DUAL CREDIT

COURSE NO: 170131DKSU

LEVELS: 10, 11, 12

CREDIT: 1

A course designed to develop a working knowledge of language in all health science major areas. Students acquire word-building skills by learning prefixes, suffixes, roots and abbreviations. Students will learn correct pronunciation, spelling and application rules. By relating terms to body systems, students identify proper use of words in a medical environment. Knowledge of medical terminology enhances the student's ability to successfully secure employment or pursue advanced education in health care.

COURSE TITLE: BIO107KSUDC & BIO108KSUDC- HUMAN ANATOMY AND PHYSIOLOGY (BIO107/108) – DUAL CREDIT

COURSE NO:

LEVELS: 11, 12

CREDIT: 1

BIO107- 170167DKS7

BIO108-170167DKS8

This course is designed to provide knowledge of the structure and function of the human body with an emphasis on normalcy. The interactions of all body systems in maintaining homeostasis will promote an understanding of the basic human needs necessary for health maintenance. Academic knowledge from life science core content as it relates to the human body will be included. Laboratory activities are required.

COURSE TITLE: MEDICAID NURSE AIDE

COURSE NO: 170631

LEVELS: 11, 12

CREDIT: 1

PREREQUISITE: One credit in Pre-Nursing Pathway earned.

An instructional program that prepares individuals to perform routine nursing related services to patients in hospitals or long-term care facilities, under the training and supervision of an approved registered nurse. State certification is available upon successful completion of state written and performance examination. Students final grade must be 70% or higher and will be based on four pre-certification test scores and successful completion of clinical practicum. Students must be competent in procedures to participate in clinical practicum experiences. Failure to complete the clinical practicum experience will result in a failing grade for the course.

***DUAL CREDIT OFFERED FOR THIS COURSE**

COURSE NAME: NAA100DCBCTC

COURSE NUMBER: 170631DBCTC

COURSE TITLE: ALLIED HEALTH CORE SKILLS

COURSE NO: 170501

LEVELS: 12

CREDIT: 1

PREREQUISITE: EMERGENCY PROCEDURES, PRINCIPLES OF HEALTH SCIENCE, AND MEDICAL TERMINOLOGY

Allied Health Core Skills is designed to provide knowledge, concepts and psychomotor skills necessary for gainful employment as an entry-level health care worker. Assisting students in selecting a career major, classroom instruction and educational objectives are combined with learning experiences, observations, and a work-based learning opportunity such as internship, shadowing, or clinical rotation. This course is designed for students not enrolled in the Medicaid Nurse Aide program.

COURSE TITLE: EMERGENCY MEDICAL TECHNICIAN (EMT) & EMERGENCY MEDICAL SERVICES (EMS)

COURSE NO: 461022A, 461023B

LEVEL: 12

CREDIT: 1

Prerequisite: Instructor Permission Required OR Student has passed a min of 2 Health Science courses.

This basic Emergency Medical Technician Course covers all knowledge aspects of trauma care as outlined by national standards, created by federal guidelines, considered to be the responsibilities of ambulance operations. Training involves typical anatomy and physiology; patient assessment; care for respiratory and cardiac emergencies; control of bleeding; application of dressing and bandages; treatment for traumatic shock; care for fractures, dislocation, sprains and strains; medical emergencies; emergency childbirth; burns and heat emergencies; environmental emergencies; principles of vehicle rescue; transportation of patients and general operations of ambulance systems. Students will also have the opportunity to become a Kentucky certified First Responder by KBEMS in providing pre-hospital care for both medical and trauma emergencies. Emergency Medical Responders (EMRs) have a higher level of skill than those trained in basic first aid. First Responders can support Emergency Medical Technicians and Paramedics by providing basic medical care for soft tissue and bone injuries and assisting in childbirth. They are also trained in packaging and transporting patients.

KBEMS Policy Requirements: Proof of age 16 or greater (Birth Certificate, State Issued Photo ID, Driver's License). Clean criminal background check, and transcripts with graduation date if less than 18 years old or verification that student is enrolled in high school with a Grade Point Average (GPA) greater than 2.0.

***DUAL CREDIT OFFERED FOR EMS**

COURSE NAME: FRS2061BCTCDC

COURSE NUMBER: 461023DBCTC

COURSE TITLE: INTERNSHIP: ALLIED HEALTH

COURSE NO: SEE BELOW

LEVELS: 12

CREDIT: 1-3

1hr: 170550CO1

2hrs: 170550CO2

3hrs: 170550CO3

PREREQUISITES: Must have completed two courses on the pathway and be enrolled in the third course, have a "C" average on the pathway, and have good regular attendance (not considered truant).

Cooperative Education I (480541) provides supervised on-the-job work experience related to the students' educational objectives. To be enrolled in the Cooperative Education course, 705 KAR 4:041. Cooperative Program Standards must be followed. The pathway teacher and director for CTE must approve all students to be enrolled in the cooperative education program. Students who participate receive a salary for these experiences, in accordance with local, state and federal minimum wage requirements according to the Work Based Learning Guide.

COURSE TITLE: INTERNSHIP: DENTAL ASSISTING

COURSE NO: SEE BELOW

LEVELS: 12

CREDIT: 1-3

1hr: 170552CO1

2hrs: 170552CO2

3hrs: 170552CO3

This internship provides supervised on-the-job work experience related to the students' education objectives in the area of Dental Assisting. Students participating in internship for CTE courses provide supervised work-site experience for high school students who are enrolled in a capstone course associated with their identified career pathway. Internship experiences consist of a combination of classroom instruction and field experiences. A student receiving pay for an intern experience is one who is participating in an experience that lasts a trimester/semester or longer and has an established employee-employer relationship. A non-paid internship affects those students who participate on a short-term basis (trimester/semester or less).

COURSE TITLE: CO-OP NURSING

COURSE NO: SEE BELOW

LEVELS: 12

CREDIT: 1-3

1hr: 170601CO1

2hrs: 170601CO2

3hrs: 170601CO3

PREREQUISITES: Must have completed three courses on the pathway, have a “C” average on the pathway, and have good regular attendance (not considered truant).

Cooperative Education I (480541) provides supervised on-the-job work experience related to the students' educational objectives. To be enrolled in the Cooperative Education course, 705 KAR 4:041. Cooperative Program Standards must be followed. The pathway teacher and director for CTE must approve all students to be enrolled in the cooperative education program. Students who participate receive a salary for these experiences, in accordance with local, state and federal minimum wage requirements according to the Work Based Learning Guide.

MANUFACTURING/WELDING

COURSE TITLE: WELDING I: OXY FUEL

COURSE NO: 480523

LEVELS: 9, 10, 11

CREDIT: 1

This course covers both Oxy-fuel Systems (480523 and Basic Welding (480503) sections under the welding curriculum. The description for each course is provided for clarification of what will be covered during the year.

Oxy-fuel Systems This curriculum provides a working knowledge of: oxy-fuel identification, set-up, inspection, and maintenance; consumable identification, selection and care; principles of operation; and effects of variables for manual and mechanized oxy-fuel cutting, welding, brazing principles and practice, and metallurgy. Shop safety and equipment use are also covered.

Basic Welding Introduction to welding, cutting processes, and related equipment. Basic setup, operation, and related safety are applied. Student will be able to practice welding safety throughout the curriculum along with gaining a full understanding of how to set up and operate a cutting torch and the basic stick welder.

COURSE TITLE: WELDING II: SMAW

COURSE NO: 480521

LEVELS: 10, 11, 12

CREDIT: 1

PREREQUISITES: Completion of Welding I

Blueprint Reading for Welding Provides a study of occupationally specific prints for welders. Advanced study of multi-view drawings, assembly drawings, datum dimensions, numerical control drawings, sheet metal prints, castings and forgings, instrumentation and control charts and diagrams, working drawings, geometric dimensioning and tolerance and use of reference materials and books are included. Occupational specifics including welding drawings, symbols, joint types, grooves, pipe welding symbols, testing symbols, and specification interpretations are stressed.

Shielded Metal Arc Welding Teaches students the identification, inspection, and maintenance of SMAW electrodes; principles of SMAW; the effects of variables on the SMAW process to weld plate and pipe; and metallurgy.

COURSE TITLE: WELDING III: MAINTENANCE

PREREQUISITES: Completion of Welding II

COURSE NO: 470328

LEVELS: 10, 11, 12

CREDIT: 1

Students will gain a working knowledge of certification encountered in welding. The student will start with developing a WPS, qualify the WPS, and qualify personnel. Documents used in welding certification are developed and used.

COURSE TITLE: WELDING IV: GMAW

COURSE NO: 480522

LEVELS: 11, 12

CREDIT: 1

PREREQUISITES: Completion of Welding III

Gas Tungsten Arc Welding Identification, inspection, and maintenance of GTAW machines; identification, selection and storage of GTAW electrodes; principles of GTAW; the effects of variables on the GTAW process; and metallurgy. This course also teaches the theory and application of Plasma Arc Cutting.

SMAW Groove Welds with Backing Lab Provides experiences in which students acquire the manipulative skills to do groove welds in all positions with backing. This lab experience will result in the student testing for the American Welding Society certification that is industry recognized across the nation.

SMAW Open Groove Lab Designed to build upon SMAW Plate Lab I and II. Offers the student the opportunity to advance skills in the practical aspects of v-butt plate welding using SMAW. This lab experience will result in the student testing for the American Welding Society certification that is industry recognized across the nation.

COURSE TITLE: CO-OP WELDING

COURSE NO: SEE BELOW

LEVELS: 12

CREDIT: 1-3

1hr: 480514CO1

2hrs: 480514CO2

3hrs: 480514CO3

PREREQUISITES: Must have completed two courses on the pathway and be enrolled in the third course, have a "C" average on the pathway, and have good regular attendance (not considered truant).

Cooperative Education I (480541) provides supervised on-the-job work experience related to the students' educational objectives. To be enrolled in the Cooperative Education course, 705 KAR 4:041. Cooperative Program Standards must be followed. The pathway teacher and director for CTE must approve all students to be enrolled in the cooperative education program. Students who participate receive a salary for these experiences, in accordance with local, state and federal minimum wage requirements according to the Work Based Learning Guide.

ENGINEERING

COURSE TITLE: ENGINEERING I

COURSE NO: 210221

LEVELS: 9, 10, 11, 12

CREDIT: 1

PREREQUISITE: ON GRADE LEVEL FOR MATH.

This course provides instruction and experiences that develop foundational skills in engineering processes. Students gain skills in problem-solving by using a design development process. Models of product solutions are created, analyzed, and communicated using solid modeling computer design software.

COURSE TITLE: ENGINEERING II

COURSE NO: 210222

LEVEL: 10, 11, 12

CREDIT: 1

PREREQUISITE: SUCCESSFUL COMPLETION OF ENGINEERING I

This course promotes a conceptual understanding of the engineering/engineering technology field. Exploring various technology systems and manufacturing processes help students learn how engineers and technicians use math, science and technology in an engineering problem solving process to benefit people. The course also addresses concerns about social and political consequences of technological change.

COURSE TITLE: CIVIL ENGINEERING

COURSE NO: 210223

LEVEL: 11, 12

CREDITS: 1

PREREQUISITE: SUCCESSFUL COMPLETION OF ENGINEERING I AND ENGINEERING II

This course provides an overview of the fields of Civil Engineering and Architecture, while emphasizing the interrelationship and dependence of both fields on each other. Students use state-of-the-art software to solve real-world problems and communicate solutions to hands-on projects and activities. This course covers topics such as: The Roles of Civil Engineers and Architects, Project Planning, Site Planning, Building Design, and Project Documentation and Presentation.

COURSE TITLE: MECHANICAL ENGINEERING

COURSE NO: 210118

LEVELS: 11, 12

CREDITS: 1

PREREQUISITE: SUCCESSFUL COMPLETION OF ENGINEERING I AND ENGINEERING II

This course builds on computer solid modeling skills developed in the Introduction to Engineering Design Course. Students use CAD software to design and develop a product and use CNC equipment to produce a mock-up or prototype. Fundamental concepts of computer integrated manufacturing (CIM) such as concurrent engineering, robotics, and cellular manufacturing are applied during the product development process.

COURSE TITLE: CO-OP ENGINEERING

COURSE NO: SEE BELOW

LEVELS: 12

CREDIT: 1-3

1hr: 210330CO1

2hrs: 210330CO2

3hrs: 210330CO3

PREREQUISITES: Must have completed two courses on the pathway and be enrolled in the third course, have a "C" average on the pathway, and have good regular attendance (not considered truant).

Cooperative Education I (480541) provides supervised on-the-job work experience related to the students' educational objectives. To be enrolled in the Cooperative Education course, 705 KAR 4:041. Cooperative Program Standards must be followed. The pathway teacher and director for CTE must approve all students to be enrolled in the cooperative education program. Students who participate receive a salary for these experiences, in accordance with local, state and federal minimum wage requirements according to the Work Based Learning Guide.

COURSE TITLE: ENGINEERING CAPSTONE

COURSE NO: 210110

LEVELS: 12

CREDIT: 1

Engineering scope, content, and professional practices are presented through practical applications in this capstone course. Students in engineering teams apply technology, Kentucky Academic Standards, and skills to solve engineering design problems and create innovative designs. Students research, develop, test and analyze engineering designs using criteria such as design effectiveness, public safety, human factors and ethics. Participation in Kentucky Technology Student Association will greatly enhance instruction. One option is UK's College of Engineering Transition to Engineering course. This course introduces students to creativity that is inherent in how engineers and computer scientists approach innovation, design, and problem solving. Students are introduced to general engineering content, tools of the trade, and ethical implications of creative engineering endeavors. Students will engage in a hands-on project with an emphasis on problems and techniques common across various engineering domains with a focus on coding.