# Barren County High School

## Course Catalog

507 Trojan Trail
Glasgow, KY 42141
270.651.6315 (phone)
270.651.9422 (fax)

**We are BC!**

# Barren County High School

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Glasgow, KY 42141
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**Principal**: Amy Irwin
**TA Principal**: Daryl Murphy
**Asst. Principal**: Robert Bauer
**Asst. Principal**: Letitia Hughes
**Asst. Principal**: Trina Rickard
**ATC Principal**: Ashley Burd

**Counselor**: Angie White - 12th grade
**Counselor**: Carrie Bunch - 11th grade
**Counselor**: April Harper - 10th grade
**Counselor**: Nicole Jones - 9th grade

Barren County High School lies in the heart of southcentral Kentucky and, along with the adjacent Trojan Academy, serves about 1,400 students in grades 9 through 12. Barren County High School is proud to offer four levels of distinction at graduation, including Highest Distinction, High Distinction, Distinction and Principal's Award. BCHS has an Early College Magnet program for students who desire to take advanced-level courses and offers students the opportunity to choose from more than two dozen career pathways to help ensure they are college and/or career ready by graduation. The school also provides a wide variety of AP and dual credit courses to help students earn college credit during high school.

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# Graduation Requirements

Students at Barren County High School are required to complete a minimum of twenty-two (22) credits in order to be eligible for graduation as well as Individual Learning Plan (ILP) updated & completed annually, Civics Exam (passing score 60 >), demonstrate competency in: Essential Workplace Skills & Technology, and Financial Literacy Instruction (beginning with the class of 2024). Pre-College Curriculum: two (2) credits in Foreign Language.

| **Minimum Graduation Requirements** | | |
|---|---|---|
| Subject | Credits | Courses |
| Language Arts | 4 | English I and II AND 2 additional English Language Arts credits aligned with the student's Individual Learning Plan (ILP)<br>Honors Requirements (choose one per year starting at grade 10): Adv. English II, Adv. English III, AP English Lang, AP English Lit, SKYCTC Eng 101<br>Credits include content strands of reading, writing, speaking, listening, observing, inquiry, conventions, analysis, and use of technology as a communication tool. |
| Social Studies | 3 | At least 1 course aligned with the student's ILP<br>Honors Requirements (choose one): Honors or AP US History<br>Credits to include strands of historical perspective, including U.S. History, Geography, Economics, Government and Civics, and Cultures and Societies. |
| Mathematics | 4 | Algebra I, Geometry, AND two additional Mathematics credits aligned with the student's ILP<br>Honors Requirements (choose one): Pre-Cal, Intro to College Algebra, AP Stats, AP Cal, AP Calc BC (online), Dual Credit (sr yr only).<br>An integrated, applied, interdisciplinary or technical/occupational course that prepares a student for a career path based on the student's Individual Learning Plan (ILP) may be substituted for a traditional Algebra I, Geometry, or Algebra II course on an individual student basis if the course meets the content standards. Pre-Algebra shall not be counted as one of the three (3) required mathematics credits, but may be counted as an elective. |
| Science | 3 | At least 1 course aligned with the student's ILP<br>Honors Requirements (choose one): WKU Chem 107/108, AP Bio, Forensics, Physics, Dual-Credit Adv. Animal Sci, Biomedical Sci, ATC Allied Health, Engineering Courses (PLTW and/or ATC), AP Computer Science.<br>Credit shall incorporate lab-based scientific investigation experiences and include the content strands of biological science, physical science, earth and space science, and unifying concepts. |
| Health | 1/2 | Credit to include the content strands of individual well-being, consumer decision, personal wellness, mental wellness, and community services. |
| Physical Education | 1/2 | Credit to include the content strands of personal wellness, psychomotor, and lifetime activity. |
| Visual and Performing Arts | 1 | History and appreciation of visual and performing arts or a performing arts course which incorporates such content. Credit to include the content strands of arts, dance, music, theater, and visual arts or a standards-based specialized arts course based on the student's Individual Learning Plan. |
| Electives | 6 | Academics and career interest standards-based learning experiences to include four (4) standards-based learning experiences in an academic or career interest based on the student's Individual Learning Plan; and demonstrated performance-based competency in technology. |
| **Total: 22 Credits** | | |

# Academic Recognition

Barren County High School graduates may earn various levels of distinction at graduation. Currently, BCHS graduates may earn one of four different levels of distinction.

### **Principal's Award** 3.5 GPA or above

- Students must maintain a minimum 3.5 GPA with no specific class requirements, just grade point average.

### **With Distinction--White Honors Sash** 3.5 GPA or above

- Students must maintain a minimum 3.5 GPA with class requirements which include all honors courses in math, English, and science, social studies (when offered) and an additional advanced science course and at least two classes in the same foreign language.

### **With High Distinction--Gold Honors Sash** 3.7 GPA or above

- Students must maintain a minimum 3.7 GPA with class requirements which include all honors courses in math, English, and science, social studies (when offered) and an additional advanced science course and at least two classes in the same foreign language.

### **With Highest Distinction--Black Honors Sash** 3.9-4.0 GPA

- Students must maintain a minimum 3.9 GPA and must meet or exceed former requirements for valedictorian/salutatorian which includes the class requirements for honor students with the addition of the successful completion of at least two Advanced Placement classes.

**Salutatorian**

- Student maintaining the 2nd highest numeric average and enrolled at Barren County High School for a minimum of four consecutive semesters and have the class requirements which include all honors courses beginning their sophomore year in math, English, and science; social studies (when offered); an additional advanced science course; at least two classes in the same foreign language; and at least two Advanced Placement classes.

**Valedictorian**

- Student maintaining the highest numeric average and enrolled at Barren County High School for a minimum of four consecutive semesters and have the class requirements which include all honors courses beginning their sophomore year in math, English, and science; social studies (when offered); an additional advanced science course; at least two classes in the same foreign language; and at least two Advanced Placement classes.

**Honor students must take all honors level classes beginning their sophomore year and an additional advanced level science course, a math course each year, and two levels of foreign language and have a 3.5+ GPA. 22 credits and 8 semesters are needed for graduation. 1 class=1 credit.

# Early College Magnet Program

Barren County High School students may apply for entry into our Early College Magnet School. This program is for students who are serious about their learning and desire to take their overall academic experience to a higher level. Magnet students receive additional recognition at graduation, including a Magnet diploma.

**Admission Requirements for Early College Magnet School:**

- 3.25 GPA minimum
    - Students must maintain this GPA over the course of his/her high school career to remain in the program
- Completion of honors-level courses in all applicable content areas
- Must take an advanced math course every year in high school
- Successful completion of a minimum of 4 Advanced Placement (AP) courses over the course of high school career (including completion of one course by the end of sophomore year)
    - Students may also take additional AP and/or Dual Credit courses

# Special Education

Special Education services are provided for students who have been found eligible through an evaluation process and have a current Individualized Education Plan (IEP). An IEP is developed through an Admissions and Release Committee (ARC) yearly to remain appropriate to what the student needs in regards to instruction, related services, least restrictive environment, transition, and supports in accordance with the Individuals with Disabilities Act (IDEA). All students wishing to receive a high school diploma must complete graduation requirements as previously set forth. Students who have been determined eligible for the Alternate Diploma Track through an ARC Committee will follow a modified graduation requirement checklist.

# Pathways

The Kentucky State Department of Education requires all high schools offer courses in career pathways. This policy ensures that students have the opportunity to be college and/or career ready upon graduation. In compliance with state policy, and to help prepare our students for a future beyond high school, all BCHS students will be placed in elective courses that are aligned with at least one College/Career Readiness Pathway.

BCHS students have access to pathway courses which are offered by instructors at the BCHS main campus, JROTC facility, and Innovation Zone. Our students may also enroll in vocational courses offered at the Area Technology Center (ATC).

| **Career Pathways** | |
|---|---|
| 1. Agriculture-Ag Power, Structural, Technical Systems<br>2. Agriculture- Animal Science Systems<br>3. Agriculture- Horticulture<br>4. Business- Accounting<br>5. Business- Marketing<br>6. Business- Administrative Support<br>7. Business- E-Commerce<br>8. Information Technology- Information Support Service (HS)<br>9. Family and Consumer Science- Child Care Services<br>10. Family and Consumer Science- Culinary<br>11. JROTC<br>12. PLTW- Biomedical Sciences<br>13. PLTW- Engineering<br>14. PLTW- Computer Science | 15. ATC- Allied Health<br>16. ATC- Pre-Nursing<br>17. ATC - Pharmacy Technician<br>18. ATC - Phlebotomy<br>19. ATC- Automotive Maintenance Light Repair Technology<br>20. ATC- Architectural Designer<br>21. ATC - Business Management<br>22. ATC- Industrial Electrician Assistant<br>23. ATC- Information Support & Services<br>24. ATC- Design Engineering<br>25. ATC- Welder Entry Level<br>26. ATC- Machinist Operator<br>27. ATC- Environmental Control System Technician |

# Course Descriptions

## Advanced Placement (AP) Courses

BCHS offers a wide variety of Advanced Placement (AP) courses. AP courses provide students with an opportunity to earn college credit while also fulfilling existing graduation requirements. These courses immerse students in a rigorous curriculum designed to foster mastery of content and critical thinking skills. AP students also develop study habits and time management routines that will prove invaluable when they transition to college.

Students taking AP courses have an opportunity to earn college credit. This credit is awarded to students who earn a qualifying score on the annual AP Exam for each course. These exams are designed by the College Board and are typically administered in May of each school year. The College Board does charge a fee for each AP Exam. However, students who qualify for free and/or reduced lunch are exempt from these AP exam fees.

## AP Courses Offered at BCHS

AP Biology
AP Calculus AB
AP Calculus BC (online)
AP Computer Science A
AP Computer Science Principles
AP English Language and Composition
AP English Literature and Composition
AP Studio Art- 2D Design
AP Studio Art- Drawing
AP U.S. Government and Politics
AP United States History
AP Research
AP Seminar
AP Statistics
AP World History

*A more detailed description of each course is available under the appropriate department. For example, more information regarding AP Biology can be found in the section for Science Courses.
**Further details about each AP course can be found on the College Board's website.
https://apcentral.collegeboard.org/

# AP Capstone

The College Board's AP Capstone is an innovative college-level program based on two courses—AP Seminar and AP Research—that complement and enhance discipline-specific AP courses. The program gives students a chance to practice core academic skills they need to complete college. The ability to think independently, write effectively, research, collaborate, and learn across disciplines is essential for success in college, career, and beyond.

Students who earn scores of 3 or higher in AP Seminar and AP Research and on four additional AP Exams of their choosing receive the AP Capstone Diploma™. This signifies their outstanding academic achievement and attainment of college-level academic and research skills. Students who earn scores of 3 or higher in both AP Seminar and AP Research but not on four additional AP Exams receive the AP Seminar and Research Certificate™.

## AP Seminar

**Grades: 10-12**

**Prerequisites: None**

AP Seminar is a foundational course that engages students in cross-curricular conversations that explore the complexities of academic and real-world topics and issues by analyzing divergent perspectives. Using an inquiry framework, students practice reading and analyzing articles, research studies, and foundational literary and philosophical texts; listening to and viewing speeches, broadcasts, and personal accounts, and experiencing artistic works and performances. Students learn to synthesize information from multiple sources, develop their own perspectives in research-based written essays, and design and deliver oral and visual presentations, both individually and as part of a team. Ultimately, the course aims to equip students with the power to analyze and evaluate information with accuracy and precision in order to craft and communicate evidence-based arguments. College credit is earned with a qualifying score on course projects combined with an AP exam.

## AP Research

**Grades: 11-12**

**Prerequisites: AP Seminar**

AP Research allows students to deeply explore an academic topic, problem, or issue of individual interest. Through this exploration, students design, plan, and conduct a year-long research based investigation to address a research question. In the AP Research course, students further their skills acquired in the AP Seminar course by understanding research methodology; employing ethical research practices; and accessing, analyzing, and synthesizing information as they address a research question. Students explore their skill development, document their processes, and curate the artifacts of the development of their scholarly work in a portfolio. The course culminates in an academic paper of approximately 4000-5000 words (accompanied by a performance or exhibition of product where applicable) and a presentation with an oral defense. College credit is earned with a qualifying score on the research project.

# Dual Credit Courses

In collaboration with post-secondary institutions such as Western Kentucky University, Murray State University, and Southcentral Kentucky Community and Technical College, Barren County High School is able to offer a variety of Dual Credit courses to meet the needs of students planning to pursue higher learning after graduation. In many cases, these courses fulfill high school graduation requirements while also providing students with the opportunity to earn college credit. College credit is awarded to students who earn a passing grade in the course.

## Dual Credit Courses Offered Through Western Kentucky University

*Dual Credit courses offered by WKU may vary from semester to semester. For example, some courses are only offered online and may only be offered during a certain semester of the year. Please see WKU's Dual Credit website for additional details on current course offerings.
https://www.wku.edu/dualcredit/

CHEM 105/106- Fundamentals of General Chemistry with Lab
CHEM 107/108- Fundamentals of Organic Chemistry with Lab
EDU 250- Intro to Teacher Education
HIST 101- World History I
MATH 116- College Algebra
MKT 220 - Basic Marketing Concepts
SOCL 100- Introductory Sociology
THEA 151- Theater Appreciation

## Dual Credit Courses Offered Through Murray State University

AGR 100- Animal Science
AGR 182- Introduction to Veterinary Science

## Dual Credit Courses Offered Through Southcentral Kentucky Community and Technical College (SKYCTC)

* BCHS and the ATC offer a wide range of SKYCTC Dual Credit courses, a selection of which are listed below. Please contact a guidance counselor for additional information regarding SKYCTC course offerings.

BIO 137/139- Human Anatomy and Physiology with Lab
CIT 105- Computer Literacy
CUL 100/101- Introduction to Culinary Arts
ENG 101- Writing 1

# Career and Technical Education Courses

## Agriculture

### AGR 100- Animal Science (Dual Credit- MSU)

**Grades: 11-12**

**Prerequisites: 3.0 GPA**

This is a basic course in animal science including the importance and place of livestock in agriculture; types, market classes and grades of beef, sheep, poultry and swine; origin and characteristics of breeds; and the judging of beef, sheep and swine.

### AGR 182- Introduction to Veterinary Science (Dual Credit- MSU)

**Grades: 11-12**

**Prerequisites: 3.0 GPA**

This course examines basic principles of veterinary science, including breeds, biology, veterinary tools, parasitology, office management, animal control, and basic clinical exam techniques for large and small animals. The purpose of this course is to provide students with an introduction to the basic principles of veterinary science. This requires students to understand the biology of both large and small breeds of animals, as well as specifics related to the area of veterinary medicine. This class will build a foundation for those high school students interested in the area of veterinary science while serving as a dual credit course to gain elective credit through Murray State University.

### Agribusiness and Farm Management

**Grades: 10-12**

**Prerequisites: None**

This course introduces the free enterprise system, the study of economic principles, risk management, business law, budgets, finance, recordkeeping, and careers in agribusiness. Basic skills will be developed to manage a farm or agribusiness. Material will include: managing production/inventory, equipment, credit and taxes, market analysis and developing a business/farm plan. 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 (SAE) program.

### Agriculture Construction Skills

**Grades: 10-12**

**Prerequisites: None**

A course that describes theories, principles, and the application of construction of agriculture-related projects. This includes principles of carpentry, electricity, plumbing, material selection, use and care of tools, safety, etc.

### Ag Sales and Marketing

**Grades: 10-12**

**Prerequisites: None**

This class focuses on basic sales and marketing strategies and techniques. Special emphasis in this class is on producing agricultural products/services and marketing them at the local, regional, and state levels. Associated with this class is the FFA Ag Sales Career Development Event - a team contest which students will have the opportunity to participate in.

### Ag Structure and Design

**Grades: 10-12**

**Prerequisites: None**

A course that describes theories, principles, the application of design and construction of agriculture structures. Includes principles of carpentry, electricity, plumbing, reading blueprints, use and care of tools, safety, etc.

### Animal Science

**Grades: 10-12**

**Prerequisites: None**

Animal Science develops basic knowledge and skills pertaining to livestock identification, selection, nutrition, reproduction and genetics, health management, and marketing of farm animals commonly produced in Kentucky. The latest production technologies, as well as, biotechnological applications will be included. Leadership development will be provided through FFA.

## Animal Technology

**Grades: 10-12**

**Prerequisites: None**

Animal Technology instruction concentrates on the advanced production practices and current biotechnological applications of one or more species of farm animals, based on the local community needs. Laboratory experiences will be used to emphasize concepts. Content may be enhanced by utilizing current industry accepted technology. Leadership development opportunities will be provided through components of the FFA Organization. Each student will be expected to have a planned supervised agricultural experience program.

## Floral Design

**Grades: 10-12**

**Prerequisites: None**

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. At various times throughout the semester, students will be given the hands-on opportunity to create actual floral arrangements. Leadership development will be provided through FFA. Each student will be expected to have a supervised agricultural experience program.

## Greenhouse Technology

**Grades: 10-12**

**Prerequisites: None**

The purpose of this class is to allow students to become knowledgeable of the components of plant science while actually working in the hands-on setting of the greenhouse. Students will experience the entire growing processes of plants in the greenhouse while also focusing on the business and marketing aspects of the industry.

## Plant and Land Science

**Grades: 10-12**

**Prerequisites: None**

Plant and Land Science develops basic scientific knowledge and skills pertaining to management of the land and its effects on food and fiber production, the environment, and the quality of life. The relationship of land to plant growth will be emphasized. Plant composition, growth, reproduction, and current biotechnological advances will be included. Leadership development will be provided through FFA.

## Principles of Ag Science and Technology

**Grades: 9**

**Prerequisites: None**

This class is designed to introduce students to the history of the agriculture industry, familiarize students with various aspects of the current agriculture industry, allow students to establish and maintain record keeping practices, and to promote student involvement in the FFA.

## Small Engine Repair

**Grades: 10-12**

**Prerequisites: None**

A course that describes theories, principles, and the application of operating, repairing, maintaining of power equipment and small engines. Includes welding, sales, marketing and safety.

# Allied Health Sciences

## Allied Health Core Skills

**Grades: 10-12**

**Prerequisites: Principles of Health Sciences, Medical Terminology, & Emergency Procedures**

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 and observations and clinical rotations. This course is designed for students not enrolled in the Medicaid Nurse Aide program and who have completed Principles of Health Science and Emergency Procedures.

## BIO 137- Human Anatomy and Physiology I (Dual Credit- SKYCTC)

**Grades: 12**

**Prerequisites: 3.0 GPA**

The interrelationship of structure and function of each body system will be presented in two semesters. The first semester will include basic chemistry, cell

structure, cell physiology, metabolism, tissues, and integumentary, skeletal, muscular, and nervous systems

## BIO 139- Human Anatomy and Physiology II (Dual Credit- SKYCTC)

**Grades: 12**

**Prerequisites: 3.0 GPA and BIO 137 (SKYCTC)**

The second semester continues the study of the interrelationships of organ systems, including the endocrine,reproductive, cardiovascular, lymphatic, digestive, respiratory, and urinary systems.

## Body Structures and Functions

**Grades: 9-12**

**Prerequisites: None**

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 (including anatomy and physiology) are included. Laboratory activities should be a part of the course when appropriate.

## Emergency Procedures

**Grades: 9-12**

**Prerequisites: None**

This course is intended to combine all existing courses in the Health Science Cluster to include foundational emergency skills for all Health Science Career Pathway students. This course will include certifications in: Cardiopulmonary Resuscitation for the Healthcare Provider; AED; bloodborne pathogen; first aid; and emergency care as outlined by an approved first aid/CPR/Bloodborne Pathogen certifying agency as put forth by the American Heart Association, National Safety Council or American Red Cross.

## Medical Laboratory Aide (Phlebotomist)

**Grades: 11-12**

**Prerequisites: Minimum of 2 prior Allied Health classes**

The internship provides supervised on-the-job work experience related to the students' education objectives in the area of Medical Laboratory Aide/Phlebotomist. 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).

## Medical Terminology (Dual Credit--SKYCTC)

**Grades: 10-12**

**Prerequisites: None**

An intense study of the medical language used in all health career major areas. Pronunciation, spelling and application rules of medical terminology are included.

## Medical Nurse Aide

**Grades: 11-12**

**Prerequisites: Minimum of two prior Allied Health classes & teacher approval**

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 or licensed practical nurse. State Registry is available upon successful completion of state written and performance examination. Prior to offering this course, the instructor and health science program must be approved for meeting state requirements set by the Cabinet for Health and Family Services.

## Pharmacy Technician

**Grades: 11-12**

**Prerequisites: Minimum of 2 prior Allied Health classes**

Students learn the fundamentals of pharmaceutical dispensing and are prepared to take the ExCPT (Exam for the Certification of Pharmacy Technician exam delivered by the National Healthcareer Association (NHA). Program topics include dosage forms, routes of administration, measurements and calculations, infection control, medication safety, prescription reading, and pharmacology. Students

have the opportunity to participate in work-based learning to supplement the course at local pharmacies.
*This course is also offered in the Biomedical Project Lead The Way program.

### Principles of Health Science

**Grades: 9-12**
**Prerequisites: None**
Orientation and foundation for occupations and functions across the health care cluster. Includes broad health care core standards which specify the knowledge and skills that the vast majority of healthcare workers should have. Prerequisite to additional courses in the Health Science Program.

## Automotive Technology

### Automotive Service Technology Section A

**Grades: 10-12**
**Prerequisites: None**
These courses present the theory, component identification, operation, diagnosis, and the service and repair of Engines, Brake Systems, Electrical/Electronic Systems, Suspension and Steering Systems, Automatic and Manual Transmission/Transaxles, 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.

### Automotive Service Technology Section B

**Grades: 10-12**
**Prerequisites: Automotive Service Technology Section A**
See Description for Automotive Service Technology Section A

### Automotive Service Technology Section C

**Grades: 10-12**
**Prerequisites: Automotive Service Technology Section A, B**
See Description for Automotive Service Technology Section A

### Automotive Service Technology Section D

**Grades: 10-12**
**Prerequisites: Automotive Service Technology Section A, B, C**
See Description for Automotive Service Technology Section A.

## Business, Management, and Administration

### Accounting and Financial Foundations (Accounting I)

**Grades: 10-12**
**Prerequisites: None**
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 business plan curriculum and exploration of case studies. Leadership development will be provided through FBLA.

### Advanced Accounting

**Grades: 10-12**
**Prerequisites: Accounting I**
This course uses an integrated approach to teach accounting. Students first learn how businesses plan for and evaluate their operating, financing, and investing decisions and then how accounting systems gather and provide data to internal and external decision makers. This year-long course covers all the learning objectives of a traditional college level financial accounting course, plus those from a managerial accounting course. Topics include an introduction to accounting, accounting information systems, time value of money, and accounting for merchandising firms, sales and receivables, fixed assets, debt and equity. Other topics include

statement of cash flows, financial ratios, cost-volume profit analysis and variance analysis. Leadership development will be provided through FBLA.

## Business ED Internship/Co-op

**Grades: 11-12**

**Prerequisites: Successfully complete three courses in a business pathway and have teacher approval.**

Capstone course. Internship/co-op 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/co-op experience is one who is participating in an experience that lasts a semester or longer and has an established employee-employer relationship. A non-paid internship affects those students who participate on a short-term basis (semester or less).

## Business and Marketing Essentials (Business Principles)

**Grades: 10-12**

**Prerequisites: None**

This course establishes basic foundations for further study in business and marketing courses and provides essential information for making financial and economic decisions. Students learn about the fundamentals of the American free enterprise system and world economies; application of sound money management for personal and family finances; credit management; consumer rights and responsibilities; forms of business ownership; risk and insurance; and the importance of international trade. Leadership development will be provided through FBLA.

## CIT 105- Introduction to Computers (Dual Credit- SKYCTC)

**Grades: 10-12**

**Prerequisites: 3.0 GPA**

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.

## Digital Literacy

**Grades: 9-12**

**Prerequisites: None**

Students will use a computer and application software including word processing, presentation, database, spreadsheet, internet, and email to prepare elementary documents and reports. The impact of computers on society and ethical issues are presented. Leadership development will be provided through FBLA (Future Business Leaders of America).

## Introduction to Management

**Grades: 10-12**

**Prerequisites: None**

## MKT 220- Basic Marketing Concepts (Dual Credit- WKU)

**Grades: 10-12**

**Prerequisite: Marketing Principles, 3.0 GPA**

Introduction to the functional activities of marketing including product, distribution, promotion, and pricing decisions; the importance of a consumer orientation; and strategic marketing planning including implementation and control marketing activities. This course is dual credit through WKU. Students should verify it will be accepted at the college of choice.

## Marketing Applications (Advanced Marketing)

**Grades: 10-12**

**Prerequisites: Marketing Principles**

Furthers student understanding and skills in the various marketing functions. Students coordinate channel management with other marketing activities, discuss the nature of marketing plans, generate product ideas, coordinate activities in the promotional mix, and demonstrate specialized sales processes and techniques. Economic and financial concepts are also stressed throughout the course. Current technology will be used to acquire information and to complete the projects. Throughout the course, students are presented problem- solving situations for which they must apply academic and critical-thinking

skills. Formal reflection is an on-going component of the course along with four projects. Leadership development will be provided through FBLA (Future Business Leaders of America).

### Marketing Internship/Co-op

**Grades: 11-12**

**Prerequisites: Successfully complete three courses in a business pathway and have teacher approval.**

Capstone course. Internship/co-op 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/co-op experience is one who is participating in an experience that lasts a semester or longer and has an established employee-employer relationship. A non-paid internship affects those students who participate on a short-term basis (semester or less).

### Marketing Principles (Principles of Marketing)

**Grades: 9-12**

**Prerequisites: None**

This course provides a basic foundation for further 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 communication 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. Leadership development will be provided through FBLA activities and competitive events.

### Personal Finance

**Grades: 10-12**

**Prerequisites: None**

The goal of the Personal Finance course is to help students to become financially responsible, conscientious members of society. To that end, this course develops student understanding and skills in areas such as money management, budgeting, financial goal attainment, the wise use of credit, insurance, investments, and consumer rights and responsibilities. Throughout the course, students also examine contemporary, real-world ethical dilemmas that individuals commonly encounter when managing their personal finances. Leadership development will be provided through FBLA (Future Business Leaders of America).

### Principles of Entrepreneurship

**Grades: 10-12**

**Prerequisites: None**

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 FBLA (Future Business Leaders of America).

## Carpentry

### Co-Op (Carpentry)

**Grades: 11-12**

**Prerequisites: Industry certified**

Cooperative Education for CTE courses provide supervised work site experience related to the student's identified career pathway. A student must be enrolled in an approved capstone course during the same school year that the co-op experience is completed. Students who participate receive a salary for these experiences, in accordance with local, state and federal minimum wage requirements.

### Ceiling and Roof Framing

**Grades: 9-12**

**Prerequisites: Intro to Construction, Site Layout and Foundations, and Floor and Wall Framing**
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.

## Construction Forms

**Grades: 10-12**
**Prerequisites: Intro to Construction, Site Layout and Foundations, Ceiling and Roof Framing, Floor and Wall Framing, and Exterior and Interior Finish**
This course will introduce the student to heavy and commercial construction. The student will receive information about rigging, mall forms, vertical piers and columns, grade curb forms, horizontal beam forms, above-grade slab systems, fireproof encasement forms, stair forms, bridge and bridge deck forms.

## Construction Prints

**Grades: 10-12**
**Prerequisites: Intro to Construction, Site Layout and Foundations, Ceiling and Roof Framing, Floor and Wall Framing, Exterior and Interior Finish, and Construction Forms**
This course will provide a series of lectures, demonstrations, and practice exercises in the study of symbols, views, sections, details, and material lists found on architectural working drawings, building materials and specifications lists, and construction dimensioning systems and charts/schedules.

## Exterior and Interior Finish

**Grades: 9-12**
**Prerequisites: Intro to Construction Technology, Site Layout and Foundations, Floor and Wall Framing, Ceiling and Roof Framing**
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, 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.

## Industrial Safety

**Grades: 9-12**
**Prerequisites: Intro to Construction, Site Layout and Foundations, Ceiling and Roof Framing, Floor and Wall Framing, Exterior and Interior Finish, and Construction Forms**
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.

## Intro to Construction Technology

**Grades: 9-12**
**Prerequisites: None**
This course is broad-based with emphasis on all phases of the construction process, including safety; legal and permitting requirements; site selection; excavation; foundation; utilities; framing and structural components; interior and exterior finishing. Topics also include: Tool and equipment selection, safety and use; preventive maintenance; materials inventory, waste management and prevention.

## Floor and Wall Framing

**Grades: 9-12**
**Prerequisites: Intro to Construction and Site Layout and Foundations**
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.

## Site Layout and Foundations

**Grades: 9-12**
**Prerequisites: Intro to Construction**
Students will prepare materials, calculate the cost for a building site, and lay out a site with a transit, locating property lines and corners. Students calculate the amount of concrete needed for footing and foundation walls and construct different types of foundations and forms.

# Computer Aided Drafting (CAD)

## Architectural Design

**Grades: 10-12**

**Prerequisites: Intro to CAD**

Combines the elements and fundamentals of architectural design with the theory and application of presentation techniques. Deals with site selection, use of materials in design, spatial relationships, and aesthetics. Traditional and contemporary design, designers, processes, and historical milestones are explored. Board and computer techniques are used in illustrating interiors of student designs.

## CAD 100- Introduction to CAD (Dual Credit- SKYCTC)

**Grades: 10-12**

**Prerequisites: 3.0 GPA**

Applies fundamental principles and capabilities of CAD, basic drafting conventions, and operations. Provides an in-depth study of computer aided drafting commands, terminology, command utilization, and skill development.

## Engineering Graphics

**Grades: 10-12**

**Prerequisites: Intro to CAD**

This is an in-depth study of advanced industrial dimensioning principles, tolerances, fits, and ANSI standards. The shape and geometric characteristics of parts will be explored through geometric tolerancing. The student will also study the basic fundamentals of precision measurement and its application in the industrial setting.

## Industrial Drafting Processes

**Grades: 10-12**

**Prerequisites: Intro to CAD**

Explores weldment design, welding symbols, welding processes, and fabrication techniques, tool and die, and jig and fixture drawings. Design specifications, pattern drawings, casting, forming processes, and mechanical drawing principles in relation to the manufacturing industry. Screw-thread design and related fastening concepts as they relate to manufactured items and construction.

## Design Engineering

**Grades: 10-12**

**Prerequisites: Intro to CAD**

Provides a practical approach to architectural drafting. An introduction to board and computer aided drafting as it relates to residential and commercial architecture, specifications, and structural systems including wood, masonry, concrete, and steel.

## Introduction to Computer Aided Drafting

**Grades: 10-12**

**Prerequisites: None**

This combined lecture and lab course is designed to introduce the student to the terminology, capabilities, and various applications of interactive computer graphics. It involves hands-on use with a graphic design workstation and the application of the fundamentals of computer assisted drafting. This course emphasizes skill development of basic computer drafting commands, techniques exploration, and in depth study of command utilization as they apply to industrial applications.

## Mechanical Design

**Grades: 10-12**

**Prerequisites: Intro to CAD**

Explores the design process involved in the development of mechanical working drawings and the design principles in various manufacturing disciplines; gear drawing and design, and cam and follower drawing and design. Design principles, mechanical adaptation, and their drawing practices. Mechanical assemblies, machine design, power transmission, bearings, and seals in assemblies. Shop processes involved in these mechanical designs.

## Parametric Modeling

**Grades: 10-12**

**Prerequisites: Intro to CAD**

Introduces Parametric Modeling and Design of a CAD workstation in exploring the techniques associated with drafting and design using Parametric modeling software. Introduces creation of parametric models and explores associative function and flexibility of concurrent part design.

## Special Programs (CAD)

**Grades: 10-12**

**Prerequisites: Intro to CAD**

Students will expand their portfolio of CAD drawings and related work specific to the occupational opportunities in specific geographical locations. Assignments and curriculum will vary as determined by the program instructor.

## Computer Sciences/Information Technology

**Introduction to Computer Science**
**Grades: 9-12**
**Prerequisites: None**
Introduction to Computer Science should be the first course taken in the computer science pathway. Using the Python 3 programming language, Intro teaches the foundations of computer science and basic programming, with an emphasis on helping students develop logical thinking and problem solving skills. Once students complete this course, they will have learned material equivalent to a semester college introductory course in Computer Science as well as have the ability to program using Python 3. Though there are no prerequisites for this course, students should have a solid grasp of basic Algebra principles and be able to work effectively and efficiently with a computer.

**Web Development**
**Grades: 9-12**
**Prerequisites: None**
The Web Development Capstone Course is intended to teach students the fundamentals of web development in a project-based learning environment. Students will be taught the basic elements of web development, such as web hosting, file organization, and incorporating Javascript into HTML files. As well, students will collaboratively and independently design, develop, and implement functional and responsive web pages using these foundational skills. Though there are no prerequisites for this course, students should have a solid grasp of basic Algebra principles and be able to work effectively and efficiently with a computer.

### AP Computer Science Principles

**Grades:10-12**
**Prerequisites: Introduction to Computer Science**
The AP Computer Science Principles course is designed to be equivalent to a first- semester introductory college computing course. In this course, students will develop computational thinking skills vital for success across all disciplines, such as using computational tools to analyze and study data and working with large data sets to analyze, visualize, and draw conclusions from trends. The course engages students in the creative aspects of the field by allowing them to develop computational artifacts based on their interests. Students will also develop effective communication and collaboration skills by working individually and collaboratively to solve problems, and will discuss and write about the impacts these solutions could have on their community, society, and the world. College credit is earned with a qualifying score on an AP exam.

**AP Computer Science A**
**Grades: 10-12**
**Prerequisites: Algebra, AP Computer Science Principles**
AP Computer Science A introduces students to computer science through programming. Fundamental topics in this course include the design of solutions to problems, the use of data structures to organize large sets of data, the development and implementation of algorithms to process data and discover new information, the analysis of potential solutions, and the ethical and social implications of computing systems. The course emphasizes object-oriented programming and design using the Java programming language. AP Computer Science A is equivalent to a first-semester, college-level course in computer science. It is recommended that a student in the AP Computer Science A course has successfully completed a first-year high school algebra course with a strong foundation of basic linear functions, composition of functions, and problem-solving strategies that require multiple approaches and collaborative efforts. In addition, students should be able to use a Cartesian (x, y) coordinate system to represent points on a plane. It is important that students and their advisers understand that any significant computer science course builds upon a foundation of mathematical reasoning that should be acquired before attempting such a course.

**BC Skills Apprenticeship (2-3 credits)**
**Grades: 11-12**
**Prerequisites: Algebra, Instructor Approval, Completed Application & Interview**

BC Skills Development Academy is the capstone to the computer science pathway. This semester-long deep dive into web and software development is designed in collaboration with industry partners to prepare BCHS students to immediately enter either the workforce as a software developer or higher education with a very specific, relevant set of skills. The curriculum is designed to traverse pathways by providing students with modern skills that can highlight their professional passion, thus, students from all pathways are accepted into the program. The BC Skills curriculum is accredited by the United States Department of Labor, and the program is nationally recognized and awarded as a leader in preparing the next generation of innovators.

**App Development with SWIFT**
**Grades: 11-12**
**Prerequisites: Algebra, Instructor Approval, AP AP Computer Science A**
In the App Development with Swift course, students will learn to code and design fully functional apps, gaining critical job skills in software development and information technology. The curriculum is designed by Apple engineers and educators and uses Swift, one of the world's most popular programming languages. **This course is an independent study and prerequisites as well as instructor approval are required.**

## Computer Hardware/Software Maintenance

**Grades: 9-12**
**Prerequisites: None**
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.

## Computer Literacy

**Grades: 9-12**
**Prerequisites: None**
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.

## Help Desk Operations (IT)

**Grades: 9-12**
**Prerequisites: Interview, teacher approval**
Introduces a variety of tools and techniques to provide user support in help desk operations. Explores help desk concepts, customer service skills, troubleshooting problems, writing for end users, help desk operations and software, needs, analysis, facilities management, and other topics related to end user support.

## Informational Technology Intern

**Grades: 11-12**
**Prerequisites: Industry Certification**
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 semester or longer and has an established employee-employer relationship. A non-paid internship affects those students who participate on a short-term basis (semester or less).

## Internet Technologies

**Grades: 10-12**
**Prerequisites: None**
Provides students with a study of traditional and emerging Internet technologies. Covers topics including Internet fundamentals, Internet applications, Internet delivery systems, and Internet client/server computing. Provides hands-on experience and some programming in an Internet environment.

## Management of Support Services

**Grades: 11-12**

**Prerequisites: Help Desk Operations**
Digitally organizing the information technology milestone achieved by the student that is reflective of their industry certification readiness, understanding the cost of doing business, and preparation of technical and behavioral job interviews. Focuses on employability skills to include: a professional digital portfolio that emphasizes critical milestones that focus on entry level information technology employability skills.

### Network Fundamentals/Cisco I

**Grades: 9-12**
**Prerequisites: None**
Introduces the architecture, structure, functions, components, and models of the Internet and other computer networks. Provides the opportunity to build simple LAN topologies by applying principles of cabling; performing basic configurations of network devices, including routers and switches; and implementing IP addressing schemes.

### Routing Protocols and Concepts/Cisco 2

**Grades: 10-12**
**Prerequisites: Network Fundamentals/Cisco 1**
Provides students with the skills necessary to understand and apply concepts related to networking hardware. Covers TCP/IP concepts such as IP addressing and subnetting, router configuration, routed and routing protocols. Completes one of a series of four courses that helps prepare students for the Cisco Certified Network Associate (CCNA) certification exam.

## Diesel

### Inspection, Maintenance & Minor Repair A

**Grades: 10-12**
**Prerequisites: None**
These Courses introduce the student to the tasks/standards included in the Inspection, Maintenance, and Minor Repair. The tasks included in the Inspection, Maintenance and Minor Repair option are entry-level technician inspection tasks designed to introduce the student to correct procedures and practices of vehicle inspection in a teaching/learning environment. These courses will instruct the student in the principles, theories, and concepts of Medium/Heavy Duty Diesel Truck Technology, and include instruction on Diesel Engines, Brake Systems, Electrical/Electronic Systems, Suspension and Steering Systems, Drivetrains, Preventive Maintenance 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 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.These courses are not intended to satisfy the Annual Federal Vehicle Inspection requirement as prescribed in the Federal Motor Carrier Safety Regulations, Part 396, Appendix G to Subchapter B, Minimum Periodic Inspection Standards. Courses A, B, C and D can be completed in any sequence.There are no prerequisites for these courses.

## Electrical Technology

### Circuits I

**Grades: 10-12**
**Prerequisites: None**
Introduction to basic theory of DC and AC circuits, including circuit analysis techniques, introductory magnetism, and transformer principles.

### EET 154/155- Electrical Construction I with lab (Dual Credit- SKYCTC)

**Grades: 9-12**
**Prerequisites: 3.0 GPA**
Involves the study of materials and procedures used in construction wiring.

### Electrical Construction I

**Grades: 9-12**
**Prerequisites: None**
Involves the study of materials and procedures used in construction wiring.

### Electrical Construction II

**Grades: 10-12**
**Prerequisites: Electrical Construction I**
Expands the knowledge and skills needed to work in commercial and industrial construction wiring.

## Electrical Co-Op

**Grades: 11-12**

**Prerequisites: Industry Certification**

Cooperative Education for CTE courses provide supervised work site experience related to the student's identified career pathway. A student must be enrolled in an approved capstone course during the same school year that the co-op experience is completed. Students who participate receive a salary for these experiences, in accordance with local, state and federal minimum wage requirements.

## Electrical Internship

**Grades: 11-12**

**Prerequisites: Industry Certification**

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 semester or longer and has an established employee-employer relationship. A non-paid internship affects those students who participate on a short-term basis (semester or less).

## Electrical Motor Controls I

**Grades: 10-12**

**Prerequisites: None**

This course addresses the diversity of control devices and applications used in industry today. Safety and electrical lockouts are also included.

## National Electrical Code

**Grades: 10-12**

**Prerequisites: Circuits I, Electric Motor Controls, and Basic Troubleshooting**

Emphasizes the importance of the National Electrical Code as it applies to electrical installations: electrical safety issues, prevention of fire due to the use of electrical energy, prevention of loss of life and property from the hazards that might arise from the use of electrical energy, and proper selection of electrical equipment for hazardous and non-hazardous environments. A learning resource in the preparation for electrical licensing examinations.

# Engineering

## Engineering 1

**Grades: 9**

**Prerequisites: None**

This course applies the skills, concepts, and principles of engineering. Students explore various technological systems and engineering processes in related career fields. Topics include investigating technological systems, design optimization, and problem solving. Students utilize CAD and physical and virtual modeling concepts to construct, test, collect, and report data. Participation in the Kentucky Technology Student Association will greatly enhance instruction.

## Engineering II

**Grades: 10**

**Prerequisites: Engineering I**

A project and research based course that extends the learning experiences where students focus on mechanical, electrical, fluid and thermal systems allowing in depth exploration in selected disciplines of engineering areas such as manufacturing, power/energy/transportation, bio-medical, robotics, hydraulics, electricity/electronics, communications, construction systems, alternative energy, computer aided design and problem solving. Participation in the Kentucky Technology Student Association will greatly enhance instruction.

## Advanced Design Applications

**Grades: 10-12**

**Prerequisites: Engineering I or II**

This course is a continuation into the broad perspective of the science, engineering and technology. It focuses on understanding concepts and skills of engineering and technology. Students will learn the importance of the application of critical thinking and problem solving skills in pursuing an engineering and technology related careers. Students will gain a deeper understanding of these technological areas: Energy and Power, Information and Communication, Transportation, Manufacturing, Construction, Medical, Agriculture, and Bio-Related Technologies. Students engage in individual and group activities creating ideas; developing innovations; and designing, fabricating, and engineering practical solutions to a variety of technological problems. Participation in the Kentucky

Technology Student Association will greatly enhance instruction.

## Manufacturing Engineering

**Grades: 10-12**

**Prerequisites: Engineering I or II**

This is a comprehensive course designed for the study of general concepts and principles of manufacturing and manufacturing systems. This course provides for hands-on learning experience which enhances the understanding of various metallic/nonmetallic materials, processes, and products. Materials studied may include polymers, ceramics, woods, composites, and metal materials associated with manufacturing. Students have the opportunity to engage in product design, prototyping, computer-assisted manufacturing applications, CNC machines, robotics, and production management. Participation in the Kentucky Technology Student Association will greatly enhance instruction.

## Robotics Engineering

**Grades: 10-12**

**Prerequisites: Engineering I or II**

This course provides students with content and skills essential to the design and operation of robotic systems. Student activities will include artificial intelligence specialized sensors, electronic applications, engineering technologies, environmental physics, manufacturing, topographical considerations, programming, motions physics, electric motors, communications, simulations, simulation and modeling, and critical thinking skills. Participation in the Kentucky Technology Student Association will greatly enhance instruction.

## Special Topics in Engineering

**Grades: 10-12**

**Prerequisites: Engineering I or II**

This is a laboratory-based course designed to study an engineering challenge, and/or recent technological advancements such as alternative energy, transportation, or other energy related fields. This study should include how this advancement affects society and/or the environment. A culminating project integrating one or more of the contexts of the field of engineering is encouraged. It should include research, design, construction, analysis, writing, and presenting. Participation in the Kentucky Technology Student Association will greatly enhance instruction.

# Family and Consumer Sciences

## Child Development Services I

**Grades: 11-12**

**Prerequisites: Parenting/Early Lifespan Development**

This course provides training for entry-level positions in day care centers, nurseries, kindergartens, and private homes. Students study careers in child development, child development and guidance, children's health and well-being in group care, value of play, teaching strategies and management, and curriculum development. The subject content is reinforced with work experience in a variety of child care establishments.

## Child Development Services II

**Grades: 11-12**

**Prerequisites: Child Development Services I**

Child Development Services II is a continuation of Child Development Services I and is designed for students who wish to further their training in early childhood education. Students gain in-depth work experiences in child care establishments, preschool centers, and other early childhood settings.

## Culinary I/ SKYCTC Dual Credit Courses

**Grades: 10-12**

**Prerequisites: Foods and Nutrition**

This advanced course allows students to increase competencies in a variety of food preparation techniques. Emphasis will be placed on food presentation, garnishing, menu planning and the skills necessary to prepare for a career in the culinary arts. Leadership development will be provided through the Family, Career and Community Leaders of America (FCCLA). Dual credit option: Students must have a GPA of 2.0 or higher to enroll in dual credit. To receive sanitation and safety credit students must complete the course and pass the National Serv Safe Food Managers Certification exam.

## Culinary II (Internship)

**Grades: 11-12**

**Prerequisites: Culinary I**

In this course students resume progress in pursuing competencies in food production and services. Orientation to the food service industry and

development of food preparation skills are reinforced. Food service management functions are introduced. More in-depth information is provided and higher levels of skills are taught. Time is provided for work based learning opportunities. Leadership development will be provided through the Family, Career and Community Leaders of America. Food preparation; bakery operation; dinner catering; model restaurant; laws and regulations; unions; safety, sanitation; receive, store and issue food are addressed. Internships for CTE courses provide supervised work site experience related to the student's identified career pathway.

### EDU 250- Introduction to Teacher Education (Dual Credit- WKU)

**Grades: 11-12**

**Prerequisites: 3.0 GPA**

This course is designed for students who are interested in pursuing a career in education. Students will acquire basic knowledge of teacher ethics,career awareness, student diversity, and curriculum. Field experiences are required.

### Early Childhood Education (Co-Op)

**Grades: 11-12**

**Prerequisites: Child Development Services II**

Cooperative Education for CTE (Career and Technical Education) courses provide supervised work site experience related to the student's identified career pathway. A student must be enrolled in an approved pathway course during the same school year that the co-op experience is completed or have already completed the pathway the previous year. 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.

### Early Childhood Education (Internship)

**Grades: 11-12**

**Prerequisites: Child Development Services II**

Internship for CTE (Career and Technical Education) courses provide supervised work site experience related to the student's identified career pathway. Internship experiences consist of a combination of classroom instruction and field experiences. Students receiving pay for intern experience are those participating in an experience that is a semester or longer and have an established employee-employer relationship. A non-paid internship affects those students who participate on a short-term basis.

### Foods and Nutrition

**Grades: 10-12**

**Prerequisites: None**

This course is designed to assist students in making critical decisions about food, which contributes to health and well-being. Laboratory instruction is included as an application process. Practical problems addressed relate to attitudes toward food, nutrition facts, special health concerns and diets, management of food resources, preparation skills, food safety, sanitation and careers in nutrition and food service.

### Parenting/Early Lifespan Development

**Grades: 9-12**

**Prerequisites: None**

This course addresses the topics of early lifespan development including conception and pregnancy, labor and delivery, infants, toddlers, preschoolers, school-age children, health and safety, and exceptional children. This course is also designed to educate students in parenting and caregiving skills that can be applied in a variety of situations. Major topics include the family, roles and responsibilities of parenting, preparing for a family, conception, prenatal and birth, infancy, health and safety, and early childhood education careers.

## HVAC and Refrigeration

### ACR 100/101 Refrigeration Fundamentals with Lab (Dual Credit-SKYCTC)

**Grades: 10-12**

**Prerequisites: Minimum 3.0 GPA**

Introduces refrigerant piping and fundamentals of refrigeration including environmental issues associated with HVAC.

### ACR 102/103- HVAC Electricity with Lab (Dual Credit-SKYCTC)

**Grades: 11-12**

**Prerequisites: Minimum 3.0 GPA**

Introduces students to basic physics of electricity. Covers Ohm's law; measuring resistance, voltage, ohms,watts and amps; constructing various types of

electrical circuits; selecting wire and fuse sizes; and troubleshooting an electric motor and motor controls. condensers. Line, low voltage and pneumatic controls will also be covered. ARI - Air Conditioning Systems: Subtopics A-E; System Installation and Start-Up: Subtopic D; System Servicing and Troubleshooting: Subtopic D; Controls: Subtopic D.

### Co-Op (Air Conditioning)

**Grades: 11-12**

**Prerequisites: Industry Certification**

Cooperative Education for CTE courses provide supervised work site experience related to the student's identified career pathway. A student must be enrolled in an approved capstone course during the same school year that the co-op experience is completed. Students who participate receive a salary for these experiences, in accordance with local, state and federal minimum wage requirements.

### Electrical Components

**Grades: 10-12**

**Prerequisites: Refrigeration Fundamentals**

This course defines the electrical components of an air conditioning system. Different types of line voltages, wiring diagrams, and solid-state devices are included. Safety is emphasized.

### Heating and Humidification

**Grades: 10-12**

**Prerequisites: Refrigeration Fundamentals and Electrical Components**

Explains heating systems from simple fossil fuel furnaces through more complex systems. This course will also concentrate on the line and control voltage circuitry pertaining to these systems. ARI Controls: Subtopics A-C; Heating Systems: Subtopics A-C; System Installation and Start-Up: Subtopics A and B; System Servicing and Troubleshooting: Subtopic C; Tools and Equipment: Subtopic D.

### HVAC Electricity

**Grades: 9-12**

**Prerequisites: None**

This course introduces students to the basic physics of electricity. Students apply Ohm's law; measure resistance, voltage, ohms, watts and amps; construct various types of electrical circuits; select wire and fuse sizes; and learn to troubleshoot an electric motor and motor controls.

### Refrigeration Fundamentals

**Grades: 10-12**

**Prerequisites: None**

Introduces the fundamentals of refrigeration, refrigeration terms, and the basic refrigeration cycle. Proper use of tools, test equipment, and materials is stressed. Environmental issues including refrigerant handling are discussed. Refrigerant piping and methods used to join them are taught. General and specific safety is emphasized.

## Machine Tool Technology

### Applied Machining I

**Grades: 9-12**

**Prerequisites: Fundamentals Machine Tool-A**

Consists of intermediate level skills using machining machines and surface grinders. It will include the selection of grinding wheels. Applications in milling, lathe, benchwork, and utilizing gauge blocks and the sine bar are covered in this course. Surface grinding and abrasives are introduced and properties of metals are discussed.

### Applied Machining II

**Grades: 9-12**

**Prerequisites: Fundamentals Machine Tool-B**

Carries the student to higher levels in the operation of machine tools. Applications in milling, lathe, benchwork, and utilizing gauge blocks and the sine bar are covered in this course. Surface grinding and abrasives are introduced, and properties of metals are discussed.

### Blueprint Reading for Machinists

**Grades: 10-12**

**Prerequisites: Fundamentals Machine Tool-B and Applied Machining II**

Provides the student with a beginning and advanced series of lectures, demonstrations, and practice exercise in the study of prints. Safety will be emphasized as an integral part of this course.

### CMM 110- Fundamentals of Machine Tool- A (Dual Credit- SKYCTC)

**Grades: 10-12**

**Prerequisites: 3.0 GPA**

Provides the basic principles needed for a solid foundation in machine tool technology. Covers shop safety, bench work, drill press, power saw, measurement, and mills.

### CMM 112- Fundamentals of Machine Tool- B (Dual Credit- SKYCTC)

**Grades: 10-12**

**Prerequisites: CMM 110**

Provides the basic principles needed for a solid foundation in machine tool technology. Includes shop safety,bench work, drill press, power saw, measurement, and lathes.

### Co-Op (Machine Tool)

**Grades: 11-12**

**Prerequisites: Passed Industry Certification**

Cooperative Education for CTE courses provide supervised work site experience related to the student's identified career pathway. A student must be enrolled in an approved capstone course during the same school year that the co-op experience is completed. Students who participate receive a salary for these experiences, in accordance with local, state and federal minimum wage requirements.

### Fundamentals of Machine Tools- A

**Grades: 9-12**

**Prerequisites: None**

This course provides the basic principles needed for a solid foundation in machine tool technology. Areas and machines covered include shop safety, benchwork, drill press, power saw, measurement, mills, and lathes.

### Fundamentals of Machine Tools- B

**Grades: 9-12**

**Prerequisites: Fundamentals of Machine Tools-A**

This course provides intermediate skill development in machine tool technology. The course builds on basic skills developed in MTT 110, especially in the calculation of safe cutting speed and feed rates for the drill press, power saw, mills, and lathes. Shop safety, benchwork, and precision measurement are also emphasized.

### Manual Programming

**Grades: 9-12**

**Prerequisites: Fundamentals of Machine Tool-A & B, Applied Machining I & II**

This course introduces the student to CNC format and the Cartesian Coordinate System. It also introduces the student to CNC codes and programming, set-up and operation of CNC machine tools. The student will utilize process planning and manual programming for CNC equipment. The student will load a CNC program and set tool and work offsets.

## Welding

### Blueprint Reading for Welding

**Grades: 9-12**

**Prerequisites: OXY Fuel Systems and Shielded Metal Arc 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 tolerancing 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.

### Co-Op (Welding)

**Grades: 9-12**

**Prerequisites: Passed Industry Certification**

Cooperative Education for CTE courses provide supervised work site experience related to the student's identified career pathway. A student must be enrolled in an approved capstone course during the same school year that the co-op experience is completed. Students who participate receive a salary for these experiences, in accordance with local, state and federal minimum wage requirements.

### Gas Metal Arc Welding

**Grades: 9-12**

**Prerequisites: OXY Fuel Systems, Shielded Metal Arc Welding, SMAW Groove Welds, and Blueprint Reading for Welding**

This course is designed to teach students the identification, inspection, and maintenance of GMAW machines; identification, selection and storage of GMAW electrodes; principles of GMAW; and the effects of variables on the GMAW process. Theory

and applications of related processes such as FCAW and SAW and metallurgy are also included.

## Gas Metal Arc Weld Groove Lab

**Grades: 10-12**

**Prerequisites: OXY Fuel Systems, Shielded Metal Arc Welding, SMAW Groove Welds, Blueprint Reading for Welding, Gas Tungsten Arc Welding and Gas Metal Arc Welding**

Teaches the method of operation and application of the Gas Metal Arc Welding process for welding groove welds in both ferrous and non-ferrous plate in all positions using both short circuiting and spray transfer where appropriate.

## Gas Tungsten Arc Welding

**Grades: 10-12**

**Prerequisites: OXY Fuel Systems, Shielded Metal Arc Welding, SMAW Groove Welds, and Blueprint Reading for Welding**

This course is designed to teach students the 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.

## Oxy-Fuel Systems

**Grades: 9-12**

**Prerequisites: None**

This course is designed to provide the student with 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 mechanical oxyfuel cutting, welding, brazing principles and practice, and metallurgy, shop safety and equipment use are also covered.

## Shielded Metal Arc Welding (SMAW) Groove Welds

**Grades: 10-12**

**Prerequisites: OXY Fuel Systems, Shielded Metal Arc Welding**

Provides experiences in which students acquire the manipulative skills to do groove welds in all positions with backing.

## SMAW Open Groove Lab

**Grades: 10-12**

**Prerequisites: OXY Fuel Systems, Shielded Metal Arc Welding, SMAW Groove Welds, Blueprint Reading for Welding, Gas Tungsten Arc Welding, Gas Metal Arc Welding, and GMAW 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 vee-butt plate welding using SMAW.

## WLD 100/101- Oxy-Fuel Systems with Lab (Dual Credit- SKYCTC)

**Grades: 10-12**

**Prerequisites: 3.0 GPA**

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 practices, and metallurgy. Shop safety and equipment use are also covered.

## WLC 120/122 - Shielded Metal Arc Welding with Lab (Dual Credit - SKYCTC)

**Grades: 10-12**

**Prerequisites: 3.0 GPA**

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.

## WLD 130/131- Gas Tungsten Arc Welding with Lab (Dual Credit- SKYCTC)

**Grades: 10-12**

**Prerequisites: 3.0 GPA**

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.

# English and Language Arts Course

## English I

**Grades: 9**

**Prerequisites: None**

English I students will develop an understanding and appreciation for the various genres of literature including short stories, novels, dramas, and poetry. Students will enhance their individual writing skills through the writing process and compose an argument essay, informative piece, and a brief narrative.. In addition to literature and writing, the course will also study grammatical skills associated with the ACT.

*An equivalent to this course is also offered at the advanced level.

*This course, or its equivalent, is required for graduation.

## Advanced English I

**Grades: 9**

**Prerequisites: None**

Advanced English I students will develop an intense understanding and deep appreciation for the various genres of literature including short stories, classical novels, dramas, and poetry. Students will enhance their individual writing skills through the writing process and compose a variety of texts throughout the year, including an argument essay, informative piece, and a brief narrative. In addition to literature and writing, the course will also study grammatical skills associated with the ACT.

*This course fulfills the English I credit requirement for graduation.

## English II

**Grades: 10**

**Prerequisites: English I**

The English II students study a variety of literary forms from American and world literature and will develop their individual writing skills through various writing exercises. Students complete analysis and argument essays, an annotated bibliography, and personal writing throughout the class. (A researched argumentative essay that utilizes MLA format is also required this year.) Students respond to essay questions and various on-demand writing prompts. Grammar skills are addressed to improve reading, writing, and speaking skills. Emphasis is placed upon reading comprehension and vocabulary development to improve student achievement.

*An equivalent to this course is also offered at the advanced level.

*This course, or its equivalent, is required for graduation.

## Advanced English II

**Grades: 10**

**Prerequisites: English I**

Advanced English II functions as an advanced survey and study of world literature. Selections within the units will prepare and lay the foundation for student success in AP Language as well as AP Literature through exposure to both fiction and non-fiction literature by way of drama, poetry, short stories, novels, and expository as well as argumentative

essays. Through in-depth analysis of the various genres, students will utilize annotation and close reading strategies as well as critical thinking skills. Students will also write analytical essays, research-based argumentative writing, and on-demand pieces. Furthermore, this course emphasizes development in active reading, language, research, and persuasive writing skills.
*This course fulfills the English II credit requirement for graduation.

## English III

**Grades: 11**

**Prerequisites: English I, English II**

English III curriculum focuses on the study of American authors and the literature that helped develop our country. Required writing focuses upon argument and analysis. Students will also respond to 90-minute on-demand writing prompts. Grammar will also be taught throughout the course.
*An equivalent to this course is also offered at the AP level.
*This course, or its equivalent, is required for graduation.

## AP English Language and Composition

**Grades: 11**

**Prerequisites: Advanced English I, Advanced English II**

AP English Language and Composition is an introductory college-level composition course. Students cultivate their understanding of writing and rhetorical arguments through reading, analyzing, and writing texts as they explore topics like rhetorical situation, claims and evidence, reasoning and organization, and style.
*This course fulfills the English III credit requirement for graduation.

## English IV

**Grades: 12**

**Prerequisites: English I, English II, English III**

The English IV curriculum involves a study of world literature both classic and contemporary. Students will be required to study a wide variety of literary genres including drama, poetry, short stories, novels and non-fiction works. English IV students will write college essays, literary analysis essays, conduct research, and build a digital portfolio. These writings will allow students to synthesize, persuade, reflect, and inform. Students will learn grammar, writing, literary analysis, annotation, and vocabulary skills in relation to the studied literature as well as speaking and listening techniques.
*An equivalent to this course is also offered at the Advanced, AP, and Dual Credit levels.
*This course, or its equivalent, is required for graduation.

## AP English Literature and Composition

**Grades: 12**

**Prerequisites: Advanced English I, Advanced English II, AP Language and Composition**

English Literature and Composition is an introductory college-level literary analysis course. Students cultivate their understanding of literature through reading and analyzing texts as they explore concepts like character, setting, structure, perspective, figurative language, and literary analysis in the context of literary works. To earn college credit, students may take an exam in May.
*This course fulfills the English IV credit requirement for graduation.

## English 101 (Dual Credit, SKYCTC)

**Grades: 12**

**Prerequisites: Advanced English I, Advanced English II, AP Language and Composition**

This course is a composition class where students will write numerous writing pieces, including college, argument, description, definition, narrative essays. The culminating writing assignment is an argument research paper using MLA citation. The class focuses on grammar, syntax, and a close study of rhetoric. Students will read non-fiction essays and books.
*This course fulfills the English IV credit requirement for graduation.

## Media/Yearbook

**Grades: 10-12**

**Prerequisites: Teacher Approval**

Media/Yearbook is a unique course that builds *The Trojan* each year. Students on staff will design pages, take pictures, write stories, sell and distribute advertisements and books, and cover school events.

# Exceptional Education Courses (Special Education)

## English I

**Grade: 9**

Special Topics: instruction for students with reading difficulties; focuses on skill acquisition and reading technique; demonstrates functional reading comprehension strategies. Special focus is given to the Kentucky Alternate Assessment aligned to Kentucky Academic Standards (KAS) and the Kentucky Employability and Foundational Academic Standards. All materials and activities presented are differentiated to meet individual student needs.

## English 2

**Grade: 10**

Special Topics: instruction for students with reading difficulties; focuses on skill acquisition and reading technique; demonstrates functional reading comprehension strategies. Special focus is given to the Kentucky Alternate Assessment aligned to Kentucky Academic Standards (KAS) and the Kentucky Employability and Foundational Academic Standards. All materials and activities presented are differentiated to meet individual student needs.

## English 3

**Grade: 11**

Special Topics: continued skill building; emphasis on individual deficiencies; functional literacy. Special focus is given to the Kentucky Alternate Assessment aligned to Kentucky Academic Standards (KAS) and the Kentucky Employability and Foundational Academic Standards. All materials and activities presented are differentiated to meet individual student needs.

## English 4

**Grade: 10**

Special Topics: competency test reading and writing; career reading/writing skills. Special focus is given to the Kentucky Alternate Assessment aligned to Kentucky Academic Standards (KAS) and the Kentucky Employability and Foundational Academic Standards. All materials and activities presented are differentiated to meet individual student needs.

## Math 1

**Grade: 9**

Focus given to the Kentucky Alternate Assessment aligned to Kentucky Academic Standards (KAS) and the Kentucky Employability and Foundational Academic Standards with a strong emphasis on real world connects and drill/practice. Special focus is given to practical math skills such as money, measurement (i.e. time/calendar skills), basic computation-number sense, and measurable goals. All materials and activities presented are differentiated to meet individual student needs.

## Math 2

**Grade: 10**

Course to include the Kentucky Alternate Assessment aligned to Kentucky Academic Standards (KAS) and the Kentucky Employability and Foundational Academic Standards with a strong emphasis on real world connections and connections with other disciplines of study. Special focus is given to practical math skills such as money, measurement (i.e. time), basic computation-number sense, and measurable goals. All materials and activities presented are differentiated to meet individual student needs.

## Math 3

**Grade: 11**

Course to include the Kentucky Alternate Assessment aligned to Kentucky Academic Standards (KAS) and the Kentucky Employability and Foundational Academic Standards with a strong emphasis on real world connections and connections with other disciplines of study. Special focus is given to practical math skills such as money, measurement (i.e. time), displaying/simple interpretation of sets of data (performance and progress, and measurable goals addressed through Kentucky's alternate assessment program and the Kentucky Employability and Foundational Academic Standards. All materials and activities presented are differentiated to meet individual student needs.

## Math 4

**Grade: 12**

Course to include the Kentucky Alternate Assessment aligned to Kentucky Academic Standards (KAS) and the Kentucky Employability and Foundational Academic Standards with a strong emphasis on real world connections and practice opportunities in settings both in and out of school and the Kentucky Employability and Foundational Academic Standards. Special focus is given to practical math skills such as money, measurement (i.e. time/calendar), and personal budgeting. All materials and activities presented are differentiated to meet individual student needs.

## Integrated Science

**Grade: 9-12**

This inquiry based introductory course is designed around the themes of patterns of change and systems, order, and organization. Students examine the organization of the universe by beginning with the fundamental laws that give order, continue with the way these laws affect the Earth and the organization of life, and conclude with how life responds to these laws. Special focus is given to Kentucky Alternate Assessment Standards and the Kentucky Employability and Foundational Academic Standards. All materials and activities presented are differentiated to meet individual student needs.

## Life Science/Biology

**Grade: 9-12**

Students develop a conceptual understanding of life science through the use of scientific inquiry. They experience life science concepts such as heredity; biological change; interdependence of organisms; matter, energy and organization in living systems; and behavior of organisms. The scientific inquiry approach uses concrete, hands-on experiences that require students to practice skills. Special focus is given to Kentucky Alternate Assessment Standards and the Kentucky Employability and Foundational Academic Standards. All materials and activities presented are differentiated to meet individual student needs.

## Earth/Space Science

**Grade: 9-12**

Students develop a basic understanding of Earth/space science. They will participate in hands-on experiences of Earth/space concepts such as energy in the Earth system, formation and ongoing changes of the Earth system, and formation and ongoing changes of the universe. Special focus is given to Kentucky Alternate Assessment Standards and the Kentucky Employability and Foundational Academic Standards. All materials and activities presented are differentiated to meet individual student needs.

## Integrated Social Studies

**Grade: 9-12**

Integrated Social Studies is an introductory survey of the various areas of social studies. It is designed to give the student exposure to different topics of social studies to prepare them for participating in future courses. Special focus is given to Kentucky Alternate Assessment Standards and the Kentucky Employability and Foundational Academic Standards. All materials and activities presented are differentiated to meet individual student needs.

## World History

**Grade: 9-12**

World History is a survey of the history of the world focusing on cultural and political aspects: a short study of western and non-western civilizations; and current events. Special focus is given Kentucky Alternate Assessment Standards and the Kentucky Employability and Foundational Academic Standards. All materials and activities presented are differentiated to meet individual student needs.

## U.S. History

**Grade: 9-12**

U.S. History is a basic overview of the history from colonial times to present; government institutions; applications to daily living. Special focus is given to the Kentucky Alternate Assessment aligned to Kentucky Academic Standards (KAS) and the Kentucky Employability and Foundational Academic Standards. All materials and activities presented are differentiated to meet individual student needs.

## Humanities

**Grade: 9-12**

This course is a study of the humanities through the arts (dance, drama, music, and visual art). It addresses the humanities, purposes, creative processes and interrelationships of the visual and performing arts. Career opportunities in visual art are also explored. Special focus is given to Kentucky

Alternate Assessment Standards and the Kentucky Employability and Foundational Academic Standards. All materials and activities presented are differentiated to meet individual student needs.

## Health & Physical Education

**Grade: 9-12**

Health addresses the topics of mental health, drugs, alcohol and tobacco, sex education, sexually transmitted diseases, infectious diseases, safety and first aid, nutrition, consumer health and non-infectious diseases. Topics also include lifetime leisure sports, individual sports and team sports. Career opportunities in the health and recreation field are also explored. Improvement of overall good health through healthy choice-making is the primary focus of the course. Special focus is given Special focus is given to Kentucky Alternate Assessment Standards and the Kentucky Employability and Foundational Academic Standards. All materials and activities presented are differentiated to meet individual student needs.

## Developing Career Options

**Grades: 9-10**

**Prerequisites: None**

This course focuses on exploration of 16 career clusters, employment skills, self-management, and work ethics. Opportunities for development and real world experience is provided through school and work experience as it relates to the child's IEP and transition goals. All materials, content, and work expectations are differentiated according to the child's IEP. This course is a requirement for students completing a Career Work Experience Certification on the Alternate Diploma Track. Course requires 40 total work experience hours to be completed according to the child's least restrictive environment. This course does not offer a credit for course completion.

## Developing Leadership Skills

**Grades: 9-14**

**Prerequisites: Developing Career Options**

This course focuses on developing skills necessary to become community leaders and employees. The course focuses on personal attributes and social skills as it relates to daily living scenarios and the workplace. All materials, content, and work expectations are differentiated according to the child's IEP. This course is a requirement for students completing a Career Work Experience Certification on the Alternate Diploma Track. Course requires 40 total work experience hours to be completed according to the child's least restrictive environment. This course does not offer a credit for course completion.

## Experience in Workplace Principles

**Grades: 10-12**

**Prerequisites: Developing Leadership Skills**

This course focuses on employable skills and the ability to adapt to changing work expectations. All materials, content, and work expectations are differentiated according to the child's IEP. This course is a requirement for students completing a Career Work Experience Certification on the Alternate Diploma Track. Course requires 40 total work experience hours to be completed according to the child's least restrictive environment. This course does not offer a credit for course completion.

## Individualized Career Work Experience

**Grades: 11-14**

**Prerequisites: Experience in Workplace Principles**

This course focuses on gaining work experience for students according to their least restrictive environment. All materials, content, and work expectations are differentiated according to the child's IEP. This course is a requirement for students completing a Career Work Experience Certification on the Alternate Diploma Track. Course requires 40 total work experience hours to be completed according to the child's least restrictive environment. This course does not offer a credit for course completion.

## Daily Living Skills

**Grades: 9-14**

**Prerequisites: None**

This course focuses on functional skills needed to improve the overall independence of the student. Course topics are determined according to the student's IEP but could include: cooking, hygiene, cleaning, social skills, transition planning, etc. This course is for students on an Alternate Diploma Track. All materials, content, and work expectations are differentiated according to the child's IEP. This course does not offer a credit for course completion.

## Basic Money Skills

**Grades: 10-14**

**Prerequisites: None**

This course focuses on functional money skills necessary for increasing independence for students on an alternate diploma track. Topics may include: identification, budgeting, basic banking, etc. All materials, content, and work expectations are differentiated according to the child's IEP. This course does not offer a credit for course completion.

## Money Skills for Independent Living

**Grades: 12-14**

**Prerequisites: None**

This course focuses on more advanced money skills for increasing independence for students on an alternate diploma track. Topics may include: budgeting, management, goal setting, or advanced banking topics such as loans and investments. All materials, content, and work expectations are differentiated according to the child's IEP. This course does not offer a credit for course completion.

# Fine Arts Courses

## Performing Arts

### Advanced Chorus

**Grades: 9-12**

**Prerequisites: Requires Teacher Signature**

Advanced Chorus provides an opportunity for students to sing quality music from a variety of World cultures and historical/style periods alongside their peers. This course will allow students to refine their musical abilities such as sight reading music and performance skills while inspiring and fostering teamwork through ensemble unity. Students will also develop critical listening skills to facilitate a life-long learning ability of music. Students can expect to perform in 3-4 required performances per semester as part of their grade, along with multiple non-required opportunities. Students will be expected to practice individually, perform college level music literature and be leaders for other Chorus sections.

*This course fulfills the humanities credit requirement for graduation.

### Aerobics-Dance/Humanities

**Grades: 10-12**

**Prerequisites: Health/P.E.**

This course is an activity-based class designed to offer the students a wide variety of fitness workouts. The students will exercise everyday to improve their current fitness levels (cardiorespiratory endurance, cardiovascular endurance, muscular endurance, muscular strength, and flexibility). This course will also cover a dance unit focusing on cultural expression which includes various elements, forms, and styles by learning several dances (line dance, ballroom dance, modern contemporary movements, disco dance, etc.).

*This course fulfills the humanities credit requirement for graduation.

### Band

**Grades 9-12**

**Prerequisites: At least 1 year of instruction at the middle school or private level.**

Courses in General Band are designed to promote students' technique for playing Brass, Woodwind and Percussion Instruments and cover a variety of band literature styles (Concert, Marching, and Chamber) primarily for performances and also include experiences in creating and responding to music. These courses teach students the appropriate care, handling, and maintenance of musical instruments. Band courses may be offered on multiple skill levels to accommodate student proficiency. Ensembles include marching, concert, jazz, chamber and solo opportunities.

*This course fulfills the humanities credit requirement for graduation.

### Chorus

**Grades: 9-12**

**Prerequisites: None**

Chorus provides an opportunity for students to sing quality music from a variety of World cultures and historical/style periods alongside their peers. This course will develop students' musical abilities such as sight reading music and performance skills while inspiring and fostering teamwork through ensemble unity. Students will also develop critical listening skills to facilitate a life-long learning ability of music. Students can expect to perform in 3-4 required performances per semester as part of their grade, along with multiple non-required opportunities.

*This course fulfills the humanities credit requirement for graduation.

### Dual Credit MUS 120- Music Appreciation (WKU)

**Grades: 10-12**

**Prerequisites: 3.0 GPA**

A survey of music from early to modern times. The course aims to widen the musical horizons and receptivities of the general college student. Curriculum includes required listening and identification as well as 2-4 researched composer profile presentations. No formal background is required. This course follows the syllabus, schedule and assessments of the WKU Music Appreciation course.

*This course fulfills the humanities credit requirement for graduation.

### Music Appreciation

**Grades: 10-12**

**Prerequisites: None**

A survey of music from early to modern times. The course aims to widen the musical horizons and receptivities of the general high school student and to make her a more discriminating listener. Concerts, radio, and television programs are assigned for special listening. No formal background is required.
*This course fulfills the humanities credit requirement for graduation.

### Orchestra

**Grades: 9-12**

**Prerequisites: Elementary and/or Middle School Orchestra**

Orchestral courses develop students' abilities to play string instruments covering a variety of orchestral literature styles. Repertoire for Orchestral courses is usually more advanced. These courses emphasize rehearsal and performance experiences and also include experiences in creating and responding to music. These courses teach students the appropriate care, handling and maintenance of musical instruments. Orchestral courses are offered on multiple skill levels to accommodate proficiency. Scheduled performances are required.
*This course fulfills the humanities credit requirement for graduation.

## Visual Arts

### AP Studio Art- 2D Design and/or Drawing

**Grades: 12**

**Prerequisites: Visual Arts I, II, and III**

The AP Studio Art portfolios are designed for students who are seriously interested in the practical experience of art. AP Studio Art is not based on a written exam; instead, students submit portfolios for evaluation at the end of the school year. The AP Studio Art Program consists of three portfolios — 2-D Design, 3-D Design and Drawing — corresponding to the most common college foundation courses. AP Studio Art sets a national standard for performance in the visual arts that contributes to the significant role the arts play in academic environments. Each year the thousands of portfolios that are submitted in AP Studio Art are reviewed by college, university and secondary school art instructors using rigorous standards. This College Board program provides the only national standard for performance in the visual arts that allows students to earn college credit and/or advanced placement while still in high school. The AP Program is based on the premise that college-level material can be taught successfully to secondary school students. In essence, the AP Program is a cooperative endeavor that helps high school students complete college-level courses and permits colleges to evaluate, acknowledge and encourage that accomplishment through the granting of appropriate credit and placement.

### THEA 151- Theater Appreciation (Dual Credit- WKU)

**Grades: 10-12**

**Prerequisites: 3.0 GPA**

This course is a college-level class that provides a study of the literary, historical and creative aspects of the theatre. It is designed to develop an understanding and appreciation of the art of theatre from the point of view of the audience.

### Visual Arts I

**Grades: 9-12**

**Prerequisites: None**

The objective of the Visual Arts class is to introduce, explore, and experiment with various types of art media and techniques, while using the elements and principles of art. Although several media will be explored, a majority of the work will revolve around pencil drawings and improving the drawing skill of the students.
*This course fulfills the humanities credit requirement for graduation.

### Visual Arts II

**Grades: 10-12**

**Prerequisites: Visual Arts I**

This course is designed to continue the exploration of art making; in particular drawing, painting, and sculpture. Students will explore a variety of materials and techniques at an "advanced" level. Students will be expected to utilize concepts and principles from Visual Art I when making more critical decisions regarding composition. Students will be expected to

be creative, critical, and display advanced craftsmanship.

## Visual Arts III

**Grades: 11-12**

**Prerequisites: Visual Arts I, Visual Arts II**

This course is designed to continue the exploration of art making; in particular drawing, painting, and sculpture. Students will explore a variety of materials and techniques at an “advanced” level. Students will be expected to utilize concepts and principles from Visual Art I when making more critical decisions regarding composition. Students will be expected to be creative, critical, and display advanced craftsmanship. Much of the work will be vague, allowing the students more opportunity for self expression and creativity.

# Foreign Language Courses

Two levels of the same Foreign Language are required for attending a 4-year college/university in Kentucky. However, there is no language requirement for BCHS graduation.

All language courses focus on proficiency in the target language. Language is a skill-based class. Just like any other skill, routine practice is required to improve and reach goals. Some students will be more naturally gifted than others. It will be up to the individual student to invest the time and effort to reach the expected level of proficiency for each course.

## Spanish I

**Grades: 9-11**

**Prerequisites: None**

Spanish I is an introduction to the Spanish language, its basic linguistic components and the cultures of the Spanish-speaking countries. Emphasis is on the development of the listening, speaking, reading and writing skills in Spanish as well as cultural knowledge. Vocabulary study is an essential part of any language course. Development of the necessary skills for success in this course requires time spent studying and practicing outside of the classroom.

## Spanish II

**Grades: 10-12**

**Prerequisites: Spanish 1**

Spanish II continues the development of the four language skills (reading, writing, speaking and listening). Also there is an increased emphasis on the understanding of native cultures, their history and their institutions. There is a continued emphasis on vocabulary development, both in recognition (reading and listening) and production (writing and speaking). In addition to the classroom activities used in Level I, Spanish II introduces immersion, when the teacher(s) and the students use only Spanish for all activities in the class.

## Special Topics in Spanish (Independent Study)

**Grades: 11-12**

**Prerequisites: Spanish 2 or Advanced Spanish 2**

Special Topics continues the development of the four language skills (reading, writing, speaking and listening). There is a refined study of the mechanics of communication. Additionally, there is a focus on the understanding of native cultures, their history and their institutions. Students will interact with a variety of authentic sources.

*This yearlong course can be as Level 3 and Level 4.

# Health and Physical Education Courses

## Aerobics-Dance/Humanities

**Grades: 10-12**

**Prerequisites: Health/P.E.**

**Fulfills Humanities Credit Requirement**

This course is an activity-based class designed to offer the students a wide variety of fitness workouts. The students will exercise everyday to improve their current fitness levels (cardiorespiratory endurance, cardiovascular endurance, muscular endurance, muscular strength, and flexibility). This course will also cover a dance unit focusing on cultural expression which includes various elements, forms, and styles by learning several dances (line dance, ballroom dance, modern contemporary movements, disco dance, etc.).

## Advanced Physical Education

**Grades: 10-12**

**Prerequisites: Health/P.E.**

This course is designed to be an extension of Health/Physical Education to provide students with the advanced skills, knowledge, attitude and confidence to be active for a lifetime.

## Health/Physical Education

**Grades: 9-12**

**Prerequisites: None**

This course is designed to give students the opportunity to learn through a comprehensive sequentially planned Physical Education and Health Education program by combining the Kentucky Academic Standards for High School Physical Education and High School Health Education into one course.

*Students must complete ½ credit in Physical Education and ½ credit in Health to be eligible for graduation.

## Principles of Conditioning

**Grades: 9-12**

**Prerequisites: None**

This course is designed to give students the opportunity to test their muscular strength & endurance, cardiovascular endurance, flexibility, and body composition by taking them through four types of training (Olympic, HIIT, Cardio, and Circuit Training).

# JROTC Courses

## U.S. Army Junior Reserve Officers Training Corps (JROTC)

The U.S. Army Junior Reserve Officers Training Corps (JROTC) program prepares cadets for leadership roles, giving practical lessons that help them develop into active and engaged learners and leaders. The program promotes academic achievement and leadership development, providing cadets with skills that they will use for the rest of their lives.

**Program Information:**

The Army JROTC is a program offered to high schools that teaches students character education, student achievements, wellness, leadership, and diversity. It is a cooperative effort between the U.S. Army and the high schools to produce successful students and citizens, while fostering in each school a more constructive and disciplined environment. The outcomes of the JROTC program are:

- Act with integrity and personal accountability as they lead others to succeed in a diverse and global workforce
- Engage civic and social concerns in the community, government, and society
- Graduate prepared to excel in post-secondary options and career pathways
- Make decisions that promote positive social, emotional, and physical health
- Value the role of the military and other service organizations

**Vision:** Providing a quality citizenship, character, and leadership development program, while fostering partnerships with communities and educational institutions.

**The JROTC Creed:**

- I am an Army Junior ROTC Cadet.
- I will always conduct myself to bring credit to my family, country, school and the Corps of Cadets.
- I am loyal and patriotic.
- I am the future of the United States of America.
- I do not lie, cheat or steal and will always be accountable for my actions and deeds.
- I will always practice good citizenship and patriotism.
- I will work hard to improve my mind and strengthen my body.
- I will seek the mantle of leadership and stand prepared to uphold the Constitution and the American way of life.
- May God grant me the strength to always live by this creed.

**Our Mission:** “To Motivate Young People to be Better Citizens”

**Academic Approach:**

The Army JROTC consists of four levels of Leadership Education Training (LET) instruction. The JROTC curriculum is based on the principles of performance-based, learner-centered education, and is linked to the McREL (instructional leadership resource) national standards. Every lesson and assessment actively

engages students' higher-order thinking and skill performance. All Levels of LET are also required to do a "Service Learning Project."

The curriculum is facilitated and taught by retired Army personnel. Qualified retired Army personnel are employed by the school to teach JROTC curriculum. JROTC teacher qualifications are based on military experience, maturity, stability, and leadership acquired over 20 years of service to our nation. To safeguard the viability of the JROTC program, the Department of Defense (DoD) and the Department of Education endorse the proposition that states recognize that JROTC instructors are certified to teach JROTC and the array of subject areas embedded (e.g., Physical Education, Health/Wellness, Civics, etc.).

**Note:** The JROTC program is a leadership course and there are no requirements to join any of the armed services. If cadets decide to choose the military as their career pathway then JROTC could help advance them in rank or promotions by completing three or more JROTC (LETS 1-3) classes.

## Leadership, Education & Training (LET) I

**Grades: 9-12**

**Prerequisites: None**

The mission of Leadership Education and Training (LET) is to motivate young people to be better citizens. To accomplish this purpose, the text discusses citizenship, leadership, and a number of other courses designed to help the cadets succeed in high school and after graduation. Cadets wear uniforms that are provided by the program on designated days, special events and competitions. The LET 1 Level consists of: Foundations of Army JROTC, Being A Leader, Leadership Skills, Know Yourself-Socrates, Learning to Learn, Study Skills, Communication Skills, and Conflict Resolution. Extracurricular activities include: Color Guard, Drill team, and Rifle team competition, and participation in local community events. LET 1 is for 9-12 grades and completion is required prior to participating in the next level.

## Leadership, Education & Training (LET) II

**Grades: 10-12**

**Prerequisites: LET I**

The second year of Leadership Education and Training is split into units including: Techniques of Communication, Leadership, Cadet Challenge, Leadership Lab, First Aid, Map Reading, History, Your American Citizenship, Career Opportunities, and Role of the U.S. Army. The wearing of the uniform and extracurricular activities are the same as for LET I. LET 2 is for 9-12 grades and completion is required prior to participating in the next level.

## Leadership, Education & Training (LET) III

**Grades: 11-12**

**Prerequisites: LET I, LET II**

The third year of Leadership Education and Training provides additional leadership situations. In this year students will not only be more involved as teachers and leaders within the cadet battalion, but they will also do more independent studies in the areas of communication, leader, first aid, history, map reading, career opportunities, and technology awareness. The wearing of the uniform and the extracurricular activities are the same as for LET I. LET 3 is for 9-12 grades and completion is required prior to participating in the next level.

## Leadership, Education & Training (LET) IV

**Grades: 12**

**Prerequisites: LET I, LET II, LET III**

The fourth-year cadets are responsible for the daily cadet administration and perform as commanders and staff officers. They act as assistant instructors in some subject areas for other JROTC classes. They continue to develop their leadership skills and plan special unit events such as the military ball and the annual awards banquet as well as several Leadership camps.

# Mathematics Courses

## AP Calculus (AB)

**Grades: 10-12**

**Prerequisites: Honors Algebra I, Honors Algebra II, Honors Geometry, Pre-Calculus**

AP Calculus AB is roughly equivalent to a first semester college calculus course devoted to topics in differential and integral calculus. The AP course covers topics in these areas, including concepts and skills of limits, derivatives, definite integrals, and the Fundamental Theorem of Calculus. The course teaches students to approach calculus concepts and problems when they are represented graphically, numerically, analytically, and verbally, and to make connections amongst these representations. Students learn how to use technology to help solve problems, experiment, interpret results, and support conclusions.

## AP Calculus (BC)

**Grades: 11-12**

**Prerequisites: Honors Algebra I, Honors Algebra II, Honors Geometry, Pre-Calculus, AP Calculus AB**

This course is only available online. AP Calculus BC is roughly equivalent to both first and second semester college calculus courses and extends the content learned in AB to different types of equations and introduces the topic of sequences and series. The AP course covers topics in differential and integral calculus, including concepts and skills of limits, derivatives, definite integrals, the Fundamental Theorem of Calculus, and series. The course teaches students to approach calculus concepts and problems when they are represented graphically, numerically, analytically, and verbally, and to make connections amongst these representations. Students learn how to use technology to help solve problems, experiment, interpret results, and support conclusions.

## AP Statistics

**Grades: 11-12**

**Prerequisites: Algebra I, Geometry, Honors Algebra 2**

**Recommended: Pre-Calculus**

The AP Statistics course is equivalent to a one-semester, introductory, non-calculus-based college course in statistics. The course introduces students to the major concepts and tools for collecting, analyzing, and drawing conclusions from data. There are four themes in the AP Statistics course: exploring data, sampling and experimentation, anticipating patterns, and statistical inference. Students use technology, investigations, problem solving, and writing as they build conceptual understanding.

## Algebra I

**Grade: 9**

**Prerequisites: None**

This course provides basic building blocks for higher mathematics courses. Objectives of Algebra I include developing strategies for solving non-routine problems and enabling students to develop an understanding of algebra by emphasizing concepts, structure, and applications. Tables and graphs are used to interpret algebraic expressions, equations, and inequalities and to analyze functions.

*An equivalent to this course is also offered at the Honors level.

*This course is required for graduation.

## Algebra II

**Grades: 9-12**

**Prerequisites: Algebra I and Geometry**

This course is a combination of the skills, concepts, and theories begun in Algebra 1. The concepts of this course include polynomial and rational expressions. Students will be expected to work with real, imaginary, and complex solution sets.

*An equivalent to this course is also offered at the Honors level.

*This course is required for graduation.

## Geometry

**Grades: 9-12**

**Prerequisites: Algebra I**

The study of geometry includes experiences and activities that emphasize the use of reasoning skills as well as two and three dimensional modeling to solve problems both mathematical and real-world.

*An equivalent to this course is also offered at the Honors level.

*This course is required for graduation.

## Intro to College Algebra

**Grade: 12**

**Prerequisites: Algebra I, Algebra II, Geometry**

In this course, topics include linear inequalities and graphing, exponents, polynomials, and rational expressions. You will study basic algebraic operations and concepts, as well as the structure and use of algebra. This includes solving algebraic equations, factoring algebraic expressions, working with rational expressions, and graphing linear equations. This course is also intended to provide you with a strong foundation for intermediate algebra and beyond. It will begin with a review of some math concepts formed in pre-algebra, such as ordering operations and simplifying simple algebraic expressions, to get your feet wet. You will then build on these concepts by learning more about functions, graphing of functions, evaluation of functions, and factorization. You will spend time on the rules of exponents and their applications in distribution of multiplication over addition/subtraction.

## MATH 116- College Algebra (Dual Credit-WKU)

**Grade: 12**

**Prerequisites: 3.0 GPA; Algebra I, Algebra II, Geometry, Pre-Calculus recommended; qualifying ACT score of 19; pass a placement exam**

Math 116 is a college-level course offered in collaboration with WKU. This course satisfies the General Education mathematics requirement for most colleges and universities, with the goal of providing students with the ability to understand and apply mathematical skills and concepts. After completing Math 116, students will be able to: use fundamental mathematical reasoning principles; use graphical, symbolic, and numeric methods to solve practical problems; and interpret information presented in tables or graphical displays.

## Pre-Calculus

**Grades: 10-12**

**Prerequisites: Honors Algebra I, Honors Algebra II, Honors Geometry (or teacher recommendation)**

Precalculus is a continuation of advanced Algebra combined with a study of trigonometry. Students will learn how to use and interpret a graphing calculator to solve problems as well as do simple algebra and trigonometric proofs. The precalculus course is designed to pull together the concepts learned in earlier Algebra and Geometry courses so that the student can proceed to Calculus. Students in this course should attain a depth of understanding of algebraic and trigonometric processes. Students should also be able to apply algebra and trigonometry to problem solving situations.

## Transitional Math

**Grade: 12**

**Prerequisites: Algebra I, Algebra II, Geometry**

This course is designed to continue the topics from Algebra II and Geometry with an emphasis on the expansion of topics in both disciplines.

# Project Lead The Way Courses (PLTW)

## Biomedical (PLTW)

### Principles of Biomedical Science (PLTW)

**Grades: 9-11**

**Prerequisites: None**

In this course, students explore concepts of biology and medicine as they take on roles of different medical professionals to solve real-world problems. Over the course of the year, students are challenged in various scenarios including investigating a crime scene to solve a mystery, diagnosing and proposing treatment to patients in a family medical practice, to tracking down and containing a medical outbreak at a local hospital, stabilizing a patient during an emergency, and collaborating with others to design solutions to local and global medical problems.The course is designed to provide an overview of all the courses in the Biomedical Sciences program and to lay the scientific foundation necessary for student success in the subsequent courses.

### Human Body Systems (PLTW)

**Grades: 10-11**

**Prerequisites: Principles of Biomedical Science**

Students examine the interactions of human body systems as they explore identity, power, movement, protection, and homeostasis in the body. Exploring science in action, students build organs and tissues on a skeletal Manikin®; use data acquisition software to monitor body functions such as muscle movement, reflex and voluntary action, and respiration; and take on the roles of biomedical professionals to solve real-world medical cases.

### Medical Interventions (PLTW)

**Grades:11-12**

**Prerequisites: Principles of Biomedical Science, Human Body Systems**

Working with the same equipment and tools used by lab professionals, PLTW Biomedical Science students are empowered to explore and find solutions to some of today's most pressing medical challenges. Through scaffolded activities that connect learning to life, students step into the roles of biomedical science professionals and investigate topics including human medicine, physiology, genetics, microbiology, and public health. Students work together in teams to find unique solutions, and in the process, learn in-demand, transferable skills like critical thinking and communication.

### Biomedical Innovations (PLTW)

**Grades: 11-12**

**Prerequisites: Principles of Biomedical Science, Human Body Systems, Medical Interventions**

In the capstone course of the PLTW Biomedical Science sequence, students build on the knowledge and skills gained from previous courses to design innovative solutions for the most pressing health challenges of the 21st century. Students address topics ranging from public health and biomedical engineering to clinical medicine and physiology. They have the opportunity to work on an independent project with a mentor or advisor from a university, medical facility, or research institution. Students also have the opportunity for work-based learning and dual-credit courses during this final year of the program.

### Pharmacy Technician

**Grades: 12**

**Prerequisites: None**

Students learn the fundamentals of pharmaceutical dispensing and are prepared to take the ExCPT (Exam for the Certification of Pharmacy Technician exam delivered by the National Healthcareer Association (NHA). Program topics include dosage forms, routes of administration, measurements and calculations, infection control, medication safety, prescription reading, and pharmacology. Students have the opportunity to participate in work-based learning to supplement the course at local pharmacies.

*This course is also offered in the Allied Health Sciences Pathway offered at the ATC.

# Science Courses

## AP Biology

**Grades: 10-12**

**Prerequisites: Integrated Science**

AP Biology is an introductory college-level biology course. Students cultivate their understanding of biology through inquiry-based investigations as they explore the following topics: evolution, cellular processes—energy and communication, genetics, information transfer, ecology, and interactions.

*Students taking this course will earn two science credits as this is a year-long block class.

*This course may be taken as an equivalent to fulfill graduation requirements.

## Biology

**Grades: 10**

**Prerequisites: Integrated Science**

Students develop a conceptual understanding of biological sciences, as outlined in the Kentucky Academic Standards for Science. They experience concepts such as the cellular organization; molecular basis of heredity; biological change; interdependence of organisms; matter, energy and organization in living systems; and 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 tools students will use, and skills they develop, 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.

*An equivalent to this course is also offered at the Honors and AP levels.

*This course, or its equivalent, is required for graduation.

## BIO 137 - Human Anatomy and Physiology I (Dual Credit - SKYCTC)

**Grades: 12**

**Prerequisites: 3.0 GPA**

The interrelationship of structure and function of each body system will be presented in two semesters. The first semester will include basic chemistry, cell structure, cell physiology, metabolism, tissues, and integumentary, skeletal, muscular, and nervous systems.

## BIO 139 - Human Anatomy and Physiology II (Dual Credit - SKYCTC)

**Grades: 12**

**Prerequisites: 3.0 GPA and BIO 137 (SKYCTC)**

This course continues the study of the interrelationships of organ systems, including the endocrine, reproductive, cardiovascular, lymphatic, digestive, respiratory, and urinary systems.

## CHEM 105/106- Fundamentals of General Chemistry (Dual Credit- WKU)

**Grades: 11**

**Prerequisites: 3.0 GPA**

This course is a college-level introduction to general chemistry. The class can be taken to earn dual credit (high school and college) through a partnership with Western Kentucky University OR solely as required coursework at BCHS. CHEM 105 is the content portion of the course. CHEM 106 is the lab portion of the course.

## CHEM 107/108- Fundamentals of Organic Chemistry (Dual Credit- WKU)

**Grades: 11-12**

**Prerequisites: 3.0 GPA; CHEM 105/106**

A continuation of CHEM 105 with a major portion of the course devoted to organic chemistry. CHEM 107 is the content portion of the course, and CHEM 108 is the lab portion of the course.

## Chemistry

**Grades: 11-12**

**Prerequisites: Biology**

This course presents basic concepts in two of the physical sciences, chemistry and physics. The topics deal with the physical properties of objects, as opposed to the characteristics of living things, which are studied in the life sciences. Chemistry is the study of how the various elements and molecules interact and combine, as well as ways to separate molecules into simpler forms. It also is concerned with special properties of the various molecules. Organic chemistry overlaps into the life sciences, since it concerns the chemistry involved in living objects.Physics is the fundamental science that states rules and laws of matter and energy. The other physical sciences, as well as biological sciences, apply these rules and laws on a larger scale. Physics also tries to explain the structure of matter—such as

the atom and some atomic particles— as well and does the different forms of energy.
*An equivalent to this course is offered at the Dual Credit level.
*This course, or its equivalent, is required for graduation.

## Integrated Sciences (Introduction to Physics and Earth Space Science)

**Grades: 9**
**Prerequisites: None**
Physics into an Earth Science based curriculum. The purpose of this class is to give you multiple experiences for the purpose of developing scientific reasoning skills that will allow you to understand how the disciplines are interrelated and work together to create a dynamic, ever-changing Earth system.
*This course, or its equivalent, is required for graduation.

## Intro to Physics

**Grades: 9**
**Prerequisites: Integrated Science**
Students develop a conceptual understanding of physics. Students experience concepts such as motions and forces, conservation of energy and the increase in disorder, interactions of energy and matter. 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.

# Social Studies Courses

## AP U.S. Government and Politics

**Grades: 11-12**

**Prerequisites: None**

AP U.S. Government and Politics provides a college-level, nonpartisan introduction to key political concepts, ideas, institutions, policies, interactions, roles, and behaviors that characterize the constitutional system and political culture of the United States. Students will study U.S. foundational documents, Supreme Court decisions, and other texts and visuals to gain an understanding of the relationships and interactions among political institutions, processes, and behaviors. College credit is earned with a qualifying score on the AP exam.

*This course fulfills the Political Science credit requirement for graduation.

## AP United States History

**Grades: 11-12**

**Prerequisites: None**

This course focuses on the development of historical thinking skills (chronological reasoning, comparing and contextualizing, crafting historical arguments using historical evidence, and interpreting and synthesizing historical narrative) and the development of students' abilities to think conceptually about U.S. history from approximately 1491 to the present. College credit is earned with a qualifying score on the AP exam.

*Students taking this course will earn two social studies credits as this is a year-long block class.

*This course fulfills U.S. History graduation requirement.

## AP World History

**Grades: 9-12**

**Prerequisites: None**

AP World History is a college-level history course designed to teach mastery of world history content while also helping students develop discipline-specific skills. Students study developments in world history from 1200 CE to present. College credit is earned with a qualifying score on the AP exam.

*This course fulfills the World Civilizations credit requirement for graduation.

## The Bible and Its Influence (Elective)

**Grades: 10-12**

**Prerequisites: None**

There are two goals related to this course of study. The first is to serve as an introduction to some of the major elements of the biblical traditions as placed in their cultural and historical context. The second is to increase awareness of the Bible's influence on Western Culture and enhance understanding of current events surrounding the Middle East today.

*This course is an elective and may not be taken as an equivalent to any social studies course required for graduation.

## HIST 101- World History (Dual Credit-WKU)

**Grades: 11-12**

**Prerequisites: 3.0 GPA**

A comparative historical survey of the major political, religious, and cultural developments in Asia, Africa, and the Mediterranean basin, Europe, and the Americas from ca. 3000 BCE to 1500 CE.

## Holocaust (Elective)

**Grades: 10-12**

**Prerequisites: None**

This course is designed to be an in-depth study of topics relating to modern German history, the Holocaust, and genocide. A special emphasis will be placed on the Nazi policies toward the Jewish population and how those policies escalate into the "Final Solution".

*This course is an elective and may not be taken as an equivalent to any social studies course required for graduation.

## Political Science

**Grades: 10-12**

**Prerequisites: None**

This course is the study of citizenship responsibilities and government - including federal, state and local government; organization and function.

*An equivalent to this course is also offered at the AP level.

*This course, or its equivalent, is required for graduation.

## U.S. History

**Grades: 10-12**

**Prerequisites: None**

The US History course focuses on developing students' understanding of American history from 1877 to the present. The course has students investigate the content of U.S. history for significant events, individuals, developments, and processes.

*An equivalent to this course is also offered at the Honors and AP level.

*This course, or its equivalent, is required for graduation.

## World Civilizations

**Grades: 9-12**

**Prerequisites: None**

World History is a survey of the history of the world focusing on cultural and political developments from 1300 to present.

*An equivalent to this course is also offered at the Dual Credit and AP level.

*This course, or its equivalent, is required for graduation.