# CALLOWAY COUNTY HIGH SCHOOL

# 2026-2027 CURRICULUM GUIDE

# CALLOWAY COUNTY HIGH SCHOOL

COMPREHENSIVE HIGH SCHOOL
2108 COLLEGE FARM ROAD
MURRAY, KENTUCKY 42071
TELEPHONE (270) 762-7374
FAX (270) 762-7380


Friday, February 27, 2026

Dear Students and Parents:

This comprehensive *Curriculum and High School Planning Guide* for 2026-2027 was developed to assist students in planning their high school education. Calloway County High School is proud to offer quality programs that provide each student the opportunity to achieve his/her educational goals. We continue to seek out ways to improve our instruction, provide a comprehensive program of studies, and meet the educational needs of our student body. At Calloway County High School, we take pride in the fact that we have something for everyone.

Please note that additions and revisions have been made to our *Guide* this year that may affect your academic choices for the 2026-2027 school year. We encourage you to take time to read through this booklet and carefully consider the available options. Give some thought to your plans beyond the next school year. How might those plans determine what classes you choose to take your freshman year? Your sophomore year? Your junior and senior years? Am I on a career path? Remember as you read to think ahead in terms of planning—not just for your high school diploma, but for college and/or career. We have provided diploma checklists to help you keep up with the courses you have taken or expect to take.

**Students:** We encourage you to challenge yourself during your high school years and choose the academic program that is appropriate for your abilities, aspirations, and aptitude.

**Parents:** We ask that you encourage the same in your child and support his/her efforts to achieve his/her personal best.

Additionally, the SBDM Council has passed policies that are aimed at improving student achievement, setting high expectations, and promoting success beyond the walls of CCHS.

If you have any questions regarding the information in our curriculum guide, please contact me, or counselors Kimberly Rydecki and Chelsea Neale.

Sincerely,

Mark Mallory
CCHS Principal

# TABLE OF CONTENTS


Letter from your principal ..... 2

About the Curriculum and Course Recovery ..... 4

Graduation Requirements ..... 5

Core Content Sequencing for Students based on Diploma track ..... 6

Policy Regarding Ranking & Determination of Valedictorian and Salutatorian C/O 2027-2029 ..... 7

Policy Regarding Ranking & Determination of Valedictorian and Salutatorian C/O 2030+ ..... 8

Policy Regarding Students transferring from "Home School" ..... 9

Policy Regarding Graduation Requirements for Students transferring from a Six Period Day ..... 9

Kentucky Career Cluster ..... 9

Course Recovery / Laker Pride / Classification Policy ..... 10

Honors Policy ..... 11

Career and Technical Education Career Pathways at CCHS ..... 13


## Course Descriptions

### Academic Core Content


Health/Physical Education ..... 14

Language Arts ..... 15

Mathematics ..... 19

Science ..... 23

Social Studies ..... 26


### Electives


Agricultural Education ..... 29

Art ..... 34

Business Education ..... 35

Career Awareness & Guidelines ..... 38

Computer Science ..... 42

Engineering & Technology ..... 45

Family & Consumer Science ..... 48

Jobs for USA's Graduates (JAG) ..... 52

Laker 101 ..... 52

Music ..... 50

World Language ..... 52

Dual Credit ..... 54

Murray-Calloway Area Technology Center Courses and Pathways ..... 62

# About the Curriculum and High School Planning Guide

On the following pages, you will find several tools that will be helpful in planning your high school education. Graduation requirements and diploma opportunities are outlined for your convenience and reference. ***Please note the differences in requirements for each diploma, and plan accordingly*.**

Descriptions of courses that may be offered at Calloway County High School are in this curriculum guide. As you read about these classes please be aware that not every course described in this guide will be offered every year. Elective classes are offered based on enrollment requests for that class.

## A Note from Your Guidance Counselors

It is vitally important that you, the student, read what is contained in this guide and share it with your parents. Doing so will help you make informed decisions about the next four years of your life, so that you are better prepared to greet your future. We are here to help you plan your high school course of study and will happily answer your questions.

Table of Contents

# Graduation Requirements

Calloway County High School offers three diploma opportunities: Standard, Enrichment, and Comprehensive. ***However, unconditional admission to a Kentucky college will be based in part upon the fulfillment of specific requirements for Enrichment or Comprehensive Diplomas.*** All students enrolled at CCHS for four years could earn 32 credits. Completion of any of these three diploma tracks leads to high school graduation. Below are the specific courses and minimum numbers of credits required to complete each diploma track.

## A. STANDARD DIPLOMA

4 credits English (one course per year)
4 credits Mathematics (minimum of one course per year)
3 credits Science
3 credits Social Studies
1 credit Health and Physical Education
**1 credit of HAVPA (or equivalent)
12 credits Electives
**Total of 22 credits-minimum**

## B. ENRICHMENT DIPLOMA

4 credits English (one course per year)
*4 credits Mathematics (minimum of one course per year)
*4 credits Science
3 credits Social Studies
1 credit Health and Physical Education
2 credits of same Foreign Language
**1 credit of HAVPA (or equivalent)
11 credits Electives
**Total of 30 credits-minimum**

## C. COMPREHENSIVE DIPLOMA

4 credits English (one course per year)
*4 credits Mathematics (minimum of one course per year)
*5 credits Science
4 credits Social Studies
2 credits of same Foreign Language
1 credit Health and Physical Education
**1 credit of HAVPA (or equivalent)
10 credits Electives
**Total of 31 credits-minimum**

NOTE: Calloway County High School requires students to earn a minimum of 22 credits to graduate.

## **History & Appreciation of Visual and Performing Arts (equivalent)

History and Appreciation of Visual and Performing Arts (HAVPA) equivalent- One (1) credit of history and appreciation of arts OR one (1) credit of performance-based course which incorporates this content from the following: Concert/Marching Band, Choir, Jazz Choir, Guitar, Advanced Guitar, Art I, Visual Art, or Sculpture. This is a state graduation requirement for the CCHS graduating class of 2021-2022 and beyond.

Table of Contents

## *English: *English Course Recommendation & Sequencing beginning with Class of 2022/2023*

| Grade Level | Standard Diploma (minimum 3 credits) | Enrichment Diploma (minimum 4 credits) | Comprehensive Diploma (minimum 4 credits) |
|---|---|---|---|
| 9 | English I | English I OR Honors English I | English I OR Honors English I |
| 10 | English II | English II OR Honors English II | English II OR Honors English II |
| 11 | English III | English III OR Honors English III | English III OR Honors English III |
| 12 | English IV OR Technical English IV OR English IV: Research Through Service | English IV OR Technical English IV OR English IV: Research through Service OR Honors English IV OR ENG 105 | English IV OR ENG 105 OR ENG 101 & ENG 102 |

## *Science: *Science Course Recommendation & Sequencing beginning with Class of 2022/2023*

| Grade Level | Standard Diploma (minimum 3 credits) | Enrichment Diploma (minimum 4 credits) | Comprehensive Diploma (minimum 5 credits) |
|---|---|---|---|
| 9 | Integrated Science I (ending with class of 2029) Earth/Space Science (beginning with class of 2030) | Integrated Science I (ending with class of 2029) Earth/Space Science (beginning with class of 2030) | Integrated Science I ending with class of 2029) Earth/Space Science (beginning with class of 2030) AND Honors Biology |
| 10 | Biology | Biology OR Honors Biology | Honors Chem OR Chem |
| 11 | Intro to Chem & Physics | Intro to Chem & Physics (ending with class of 2028) Chem OR Honors Chem (beginning with class of 2029) | Conceptual Physics or Honors Physics |
| 12 | Additional Science elective (if desired) | Chem OR Honors Chem (if took ICP in Grade 11) OR Conceptual Physics or Honors Physics (beginning with class of 2029) | Additional Science Elective(s) such as Adv Chem, AP Chem, Env Sci, Zoo/Gen, or Dual Credit Sciences |

## *Math: *Math Course Recommendation & Sequencing beginning with Class of 2023*

| Grade Level | Standard Diploma (minimum 4 credits) | Enrichment Diploma (minimum 4 credits) | Comprehensive Diploma (minimum 4 credits) |
|---|---|---|---|
| 9 | Algebra I | Algebra 1 or Geometry | Algebra I OR Hon Alg I OR Geometry OR Hon Geom OR Hon Alg I |
| 10 | Geometry | Geometry or Algebra 2 | Geometry OR Algebra 2 OR Hon Alg 2 OR Hon Geom & Hon Alg 2 |
| 11 | Algebra Bridge | Algebra 2 OR Hon Algebra 2 OR Hon Pre-Cal OR Hon Advanced Topics in Math | Algebra 2 OR Hon Algebra 2 OR Hon Pre-Cal OR Hon Advanced Topics in Math |
| 12 | Technical Math or Business Math | Hon Pre-Cal OR Hon Advanced Topics in Math OR a Dual Credit Math Course (See Pg 48) | Hon Pre-Cal OR Hon Advanced Topics in Math OR a Dual Credit Math Course (See Pg 48) |

**Students will not be allowed to double up in math in grades 9-11, with the exception of highly qualified sophomores. Doubling up during the senior year will be on an individualized case-by-case basis.*

## *Social: Studies *Social Studies Courses & Sequencing beginning with Class of 2023*

| Grade Level | Standard Diploma (minimum 3 credits) | Enrichment Diploma (minimum 3 credits) | Comprehensive Diploma (minimum 4 credits) |
|---|---|---|---|
| 9 | Integrated Social Studies | Integrated Social Studies OR Honors Integrated Social Studies | Integrated Social Studies OR Honors Integrated Social Studies |
| 10 | World History | World History OR Honors World History | World History OR Honors World History |
| 11 | U.S. History | U.S. History OR Honors U.S. History OR A.P. US History OR (HIS 222) | U.S. History OR Honors U.S. History OR (HIS 222) |
| 12 | HAVPA (if a student has not completed 1 credit of art, music or band) | HAVPA (if a student has not completed 1 credit of art, music or band) | Additional elective in history AND HAVPA (if a student has not completed 1 credit of art, music or band) |

Table of Contents

# Ranking and Determination of Valedictorian and Salutatorian

**CCHS GRADUATION HONOR POLICY**

## *For Graduating Class of 2027, 2028, and 2029*

**Enacted April 21, 2011**
**Amended January 15, 2014, July 13, 2016, July 19, 2017, April 20, 2022, January 2024, January 2026**

Calloway County High School will recognize graduates as noted below:

- **VALEDICTORIAN:**
  - ✓ 4.0 weighted GPA
  - ✓ take at least 15 honors/accelerated/dual credit/AP courses
  - ✓ meet **ACT** benchmarks in English, math, reading, and science or SAT benchmarks in Reading (Writing) and Math
- **SALUTATORIAN:**
  - ✓ Senior(s) with the next highest weighted GPA
  - ✓ take at least 15 honors/accelerated/dual credit/AP courses
  - ✓ meet **ACT** benchmarks in English, math, reading, and science or SAT benchmarks in Reading (Writing) and Math
- **DISTINGUISHED HONOR GRADUATE:**
  - ✓ Must earn a cumulative weighted GPA of at least 3.75 through 4.00
  - ✓ Must earn transition ready status
  - ✓ Must earn an Enrichment or Comprehensive Diploma upon graduation
  - ✓ Must have taken and passed four Honors/AP/Dual Credit Classes upon graduation.
- **HONOR GRADUATE:**
  - ✓ Must earn a cumulative weighted GPA of at least 3.5 but less than 3.75
  - ✓ Must earn transition ready status
  - ✓ Must earn an Enrichment or Comprehensive Diploma upon graduation.

**ACT BENCHMARKS:**
English (18), Math (19), Reading (20), Science (23)
**SAT BENCHMARKS:**
Reading (Writing) (490), Math (510)

**TRANSITION READINESS:**
COLLEGE READINESS - Meeting all ACT benchmarks in all subject areas
CAREER READINESS - Completion of CCSD Pathway or pathway completed in another school district

IMPORTANT NOTE: Any student graduating that is recognized as an Honor Graduate or Distinguished Honor Graduate must have achieved the following. For the purposes of determining Honor Graduates, students (seniors) will be ranked after the completion of seven semesters; this will be a preliminary ranking. At the completion of eight semesters, grades will be posted to transcripts and finalized. If the student has maintained that weighted GPA, he/she will be recognized at graduation/senior awards night/etc. as Honor Graduate or Distinguished Honor Graduate. If the student has NOT maintained that preliminary weighted GPA, he/she may not be recognized as Honor Graduate or Distinguished Honor Graduate of the class during senior activities.

# Ranking and Determination of Valedictorian and Salutatorian

**CCHS GRADUATION HONOR POLICY**

# For Graduating Class of 2030+

**Enacted April 21, 2011**
**Amended January 15, 2014, July 13, 2016, July 19, 2017, April 20, 2022, January 2024, January 2026**

Calloway County High School will recognize graduates as noted below:

- **VALEDICTORIAN**:**
  - ✓ Senior(s) obtaining the highest GPA (out of a 5.0 weighted GPA)
  - ✓ take at least 15 honors/accelerated/dual credit/AP courses
  - ✓ meet ACT benchmarks in English, math, reading, and science or SAT benchmarks in Reading (Writing) and Math
- **SALUTATORIAN**:**
  - ✓ Senior(s) with the next highest weighted GPA
  - ✓ take at least 15 honors/accelerated/dual credit/AP courses
  - ✓ meet ACT benchmarks in English, math, reading, and science or SAT benchmarks in Reading (Writing) and Math
- **DISTINGUISHED HONOR GRADUATE:**
  - ✓ Must earn a cumulative weighted GPA of at least 3.75 through 4.00
  - ✓ Must earn transition ready status
  - ✓ Must earn an Enrichment or Comprehensive Diploma upon graduation
  - ✓ Must have taken and passed four Honors/AP/Dual Credit Classes upon graduation.
- **HONOR GRADUATE:**
  - ✓ Must earn a cumulative weighted GPA of at least 3.5 but less than 3.75
  - ✓ Must earn transition ready status
  - ✓ Must earn an Enrichment or Comprehensive Diploma upon graduation.

**ACT BENCHMARKS:**
English (18), Math (19), Reading (20), Science (23)
**SAT BENCHMARKS:**
Reading (Writing) (490), Math (510)

**TRANSITION READINESS:**
COLLEGE READINESS - Meeting all ACT benchmarks in all subject areas
CAREER READINESS - Completion of CCSD Pathway or pathway completed in another school district

**For years that graduating classes have a Gatton student with the highest GPA, we will have a Gatton Val/Sal AND a CCHS Val/Sal. In the years we do not have a Gatton student with the highest GPA, we would just have 1 Val/1 Sal.

IMPORTANT NOTE: Any student graduating that is recognized as an Honor Graduate or Distinguished Honor Graduate must have achieved the following. For the purposes of determining Honor Graduates, students (seniors) will be ranked after the completion of seven semesters; this will be a preliminary ranking. At the completion of eight semesters, grades will be posted to transcripts and finalized. If the student has maintained that weighted GPA, he/she will be recognized at graduation/senior awards night/etc. as Honor Graduate or Distinguished Honor Graduate. If the student has NOT maintained that preliminary weighted GPA, he/she may not be recognized as Honor Graduate or Distinguished Honor Graduate of the class during senior activities.

Table of Contents

## Policy Regarding Determination of Credits for Secondary Students who are Transferring from "Home School" to Calloway County High School

Previous credit earned by a student in a *non-accredited secondary school* shall be awarded by one of the two following methods:

- Upon presentation of a portfolio of work for a pre-requisite course and approval of portfolio by the department chair or his/her designee, the student may enroll in a course that is sequential in nature (has a pre-requisite, i.e. English I is a pre-requisite to English II). If the student has maintained a minimum of a C average at the end of the twelfth week of school, then he will be awarded credit for the pre-requisite course.
- To receive credit for a course that does not have a pre-requisite, the student would have to pass a final examination for that course. The final examination must be of similar nature and content as that given to students enrolled in the course and must be graded on a comparable basis.

All credit for previous work shall be recorded on the student's Calloway County High School transcript as a "pass".

## Amendment to the Number of Credits Required for Graduation for Transferring Students transferring from a Six/Seven Period Day

- A student transferring from a six (6) or seven (7) credit per year institution, and is on the block schedule system at Calloway County High School for one (1) year, must have at least 25 credits, have taken all required courses that are state and local mandates, and may receive the highest diploma for which they have completed all the required courses. In this case the student would not have to meet the total elective class credit requirement.
- A student transferring from a six (6) or seven (7) credit per year institution, and is on the block schedule system at Calloway County High School for two (2) years, must have at least 26 credits, have taken all required courses that are state and local mandates, and may receive the highest diploma for which they have completed all the required courses. In this case the student would not have to meet the total elective class credit requirement.

***Approved by Calloway County Schools Board of Education on May 10, 2001**

## Kentucky's Career Clusters

The state of Kentucky has 16 career clusters organized by content and course of study. These career clusters provide a way for schools to organize instruction and enhance student experiences through categories that encompass occupations from entry through professional levels. These are: Agriculture, Food & Natural Resources; Architecture & Construction; Arts A/V Technology & Communications; Business Management & Administration; Education & Training; Finance; Government & Public Administration; Health Science; Hospitality & Tourism; Human Services; Information Technology; Law, Public Safety, Corrections & Security; Manufacturing; Marketing; Science, Technology, Engineering & Mathematics; and Transportation, Distribution & Logistics. Beginning in their freshman year, Kentucky students are being asked to think about the career direction they might choose to follow in post-secondary pursuits. Part of graduation requirements includes each grade level (9-12) to complete their individual learning plan through a program known as TASSEL. Students will have the opportunity to explore their post-secondary plans through this exploratory program.

Table of Contents

## Course Recovery Process

If a student fails a core content course required for graduation (English, Math, Science, Social Studies, etc.) then they will have the opportunity to recovery or remediate that failing grade through one of the following options depending on their final grade in the course:

64-55 – Summer School recovery program
54-40 – Remediate the course through Edmentum during the school year
39-0 – Repeat the course in the regular education setting

## Laker PRIDE (Programmed Recovery In a Disciplined Environment)

Students who are academically behind and generally have difficulty adapting their own learning styles to the traditional classroom setting may be placed in the Laker PRIDE. This program incorporates computer technology and electronic school curriculum within the context of a less traditional classroom. Class sizes are reduced to accommodate multiple contents covered in one class block. Students will not receive a credit for the Laker Pride course. Students will receive a credit for the core content course(s) that they remediate in Laker Pride.

## Calloway County High School Classification Policy

To be classified as a ***sophomore*** at CCHS, a student must have five (5) total credits, two (2) of which must be credits in English, Math and/or Science.

To be classified as a ***junior*** at CCHS, a student must have ten (10) total credits, five (5) of which must be credits in English, Math and/or Science.

To be classified as a ***senior*** at CCHS, a student must have sixteen (16) total credits, seven (7) of which must be credits in English, Math and/or Science.

Table of Contents

# Calloway County High School Honors Course Policy

Calloway County High School feels strongly that students who want to challenge themselves with rigorous courses should be encouraged to do so and our school should make every effort to accommodate those requests. Any student or parent may request students to be admitted to an honors, advanced, accelerated, or Advanced Placement course (hereafter referred to as "honors courses") with placement pending meeting the Honors Course Policy as outlined below.

1. Student placement in the honors course will be dependent upon that course's pre-requisites, as noted in the most recent curriculum guide. These pre-requisites can include a minimum grade requirement and/or teacher recommendation.
2. Teachers will continue to make honors course recommendations, in consultation with students and parents.
3. Transfer students will be admitted to honors courses based on student and parent requests for honors courses in conjunction with transfer grade records from the previous school and will also be subject to class availability.
4. If more than 31 students sign up for an honors section, additional sections will be created and dispersed as evenly as possible to accommodate student requests for honors courses.
5. Students will not be required to complete summer work for honors courses. Teachers may provide optional review work, at the teacher's discretion, but it will not be required for students to complete.
6. Students and their parents who meet the pre-requisites for honors classes will be notified by the recommending teacher of the following Honors Course guidelines:
    a. Students are not guaranteed a specific grade in an honors course.
    b. Student attendance is of utmost importance. Students should refrain from scheduling unnecessary appointments during honors classes and keep all absences and tardies/early checkouts to a minimum. These absences exclude approved EHO's and school-related field trips.
    c. Students who missed more than 10% of a previous year's school days may not be eligible for placement in additional honors classes.
    d. Students wishing to drop an honors class must do so by midterm of the first 9 week marking period.
        i. The student must have conferenced with the teacher AND attend more than one ESS session for the course they are requesting to drop.

Appeals to this policy should be made to the Principal. Upon receiving, the Principal will convene an appeals committee composed of an SBDM Parent, an SBDM Teacher and the Chair of SBDM to discuss the appeal with the parent and student.

Table of Contents

# Career & Technical Education Career Pathways

## AGRICULTURE

Contacts: Jacob Falwell & Cassie Miller

### ANIMAL SCIENCE SYSTEMS
**4 Credits Required**

**Choose 4 credits from the following:**

- Principles of Ag Science Tech (030715) (1)
- Animal Science (020501) (1)
- Small Animal Technology (020503) (1)
- Veterinary Science (020511) (1)

**May Substitute ONE Credit Below for a Pathway Course:**

- Agri-Business/Farm Management (010131) (1)
- Agricultural Construction Skills (010241) (1)
- AGR 100 (020502M) (1credit at CCHS; 3 hours at MSU)
- AGR 182 (020511M) (1 credit at CCHS; 3 hours at MSU)
- AGR 199 (030711M) (1 credit at CCHS; 3 hours at MSU)

**May add credits below once a pathway is completed:**

- 030790 Agricultural Education Co-Op
- 090791 Agricultural Internship
- AGR 130 (010101M) (1credit at CCHS; 3 hours at MSU)
- AGR 133 (030707M) (1credit at CCHS; 2 hours at MSU)
- AGR 185 (030702M) (1credit at CCHS; 3 hours at MSU)

### HORTICULTURE/PLANT SYSTEMS
**4 Credits Required**

**Choose 4 credits from the following:**

- Principles of Ag Science Tech (030715) (1)
- Intro to Greenhouse & Crop Production (010611) (1) (Includes Floral Design unit)
- Greenhouse Technology (010641) (1)
- Landscape Design & Turf Management (010631) (1)

**May Substitute ONE Credit Below for a Pathway Course:**

- Agri-Business/Farm Management (010131) (1)
- Agricultural Construction Skills (010241) (1)
- AGR 140 (010651M) (1 credit at CCHS; 3 hours at MSU)
- AGR 160 (010651) (1 credit at CCHS; 3 hours at MSU)
- AGR 199 (030711M) (1 credit at CCHS; 3 hours at MSU)

**May add credits below once a pathway is completed:**

- 030790 Agricultural Education Co-Op
- 090791 Agricultural Internship
- AGR 130 (010101M) (1credit at CCHS; 3 hours at MSU)
- AGR 133 (030707M) (1credit at CCHS; 2 hours at MSU)
- AGR 185 (030702M) (1credit at CCHS; 3 hours at MSU)

## BUSINESS

Contacts: Ashley Fritsche & Brenden Thomas

### ADMINISTRATIVE SUPPORT
**4 Credits Required**

- Digital Literacy (060112) (1)
- Accounting & Finance Foundations (Acct. I) (060122) (1)
- MOS- Microsoft Office Specialist Certification (070750) (1)
- Advanced Office Administration (070743) (1)

### E-COMMERCE
**4 Credits Required**

- Digital Literacy (060112) (1)
- Multimedia Publishing (060751) (1)
- Principles of Marketing (080716) (1)
- Advanced Marketing (080717) (1)

### ACCOUNTING
4 Credits Required

- Digital Literacy (060112) (1)
- Accounting & Finance Foundations (Acct. I) (060122) (1)
- Financial Accounting (Accounting II) (070122) (1)
- Advanced Office Administration (070743) (1) **OR** MOS-Microsoft Office Specialist Certification (070750) (1)

# Computer Science

## Virtual Courses taught through We LEAD Computer Science

| COMPUTER PROGRAMMING CIP<br>4 credits Required | CYBERSECUIRTY CIP<br>4 Credits Required |
|---|---|
| • Intro to Programming (110201 (1)<br>• Computer Literacy (110110) (1) DC<br>• Computational Thinking (110251) (1) DC<br>• Object-Oriented Programming I (110220) (1) DC<br>• JAVA Programming I (110205) (1) DC | • Cybersecurity (110230) (1)<br>• Cyber Literacy I (110222) (1)<br>• Cyber Literacy II (110223) (1)<br>• Computer Literacy (110110) (1) DC<br>• Security Fundamental (110912) (1) |

# ENGINEERING & TECHNOLOGY

Contacts: Bobby Potts & John Williams

| ENGINEERING DESIGN<br>4 Credits Required | AUTOMATION ENGINEERING<br>4 Credits Required |
|---|---|
| **Choose 1 or 2 from:**<br>• Engineering 1 (210221) (1)<br>• Engineering 2 (210222) (1)<br>• Technical Design I (210138) (1)<br>• Technical Design II (210108) (1)<br>**AND 2 or 3 from:**<br>• Architectural Design (210140) (1)<br>• Advanced Design Applications (210117) (1)<br>• Engineering Capstone (210110) (1) | **Choose 1 or 2 from:**<br>• Engineering 1 (210221) (1)<br>• Engineering 2 (210222) (1)<br>**AND 2 or 3 from:**<br>• Robotics Engineering (210238) (1)<br>• Robotics Automation and Design (210239) (1)<br>• Manufacturing Engineering (210225) (1)<br>• Advanced Design Applications (210117) (1)<br>• Engineering Capstone (210110) (1) |

# FAMILY & CONSUMER SCIENCE

Contact: Jennifer Ernstberger

| CONSUMER & FAMILY MANAGEMENT<br>4 credits required |
|---|
| • Mid/Late Lifespan Development (200226) (1)<br>• Family & Consumer Science Essentials (200113) (1)<br>• Parenting **&** Relationships (200173 & 200171) (1)<br>• Foods & Nutrition (200441) (1)<br>• Financial Literacy (080719) (1) |

Use this page to plan or complete a career major in the listed areas. Upon completion of a career major, a certificate will be issued by the state of Kentucky showing that you specialized in a field. This certificate is recognized by the state and by employers and will enhance your skills/qualifications on resumes and scholarship applications.

Table of Contents

# Health & Physical Education

| Course | Number | Grade | Credit |
|---|---|---|---|
| Health & Physical Education | 340290 | 9 | 1 |
| Advanced Physical Education | 340219 | 9-12 | 1 |

## Health & Physical Education

No. 340290-Grade 9-Credit 1

This **REQUIRED** 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.

## Advanced Physical Education

No. 340219P-Grade 9-12-Credit 1

This course is designed to be an extension of Physical Education I to provide students with the advanced skills, knowledge, attitude, and confidence to be active for a lifetime. Students will be exposed to the rigors of advanced muscle and cardiovascular training. Students will learn various training methods used in personal training, bodybuilding, and athletics. Students will be able to perform a wide variety of bodybuilding and Olympic lifting lifts, as well as accomplish improved times in various cardiovascular exercises. Students will be able to identify healthy eating habits that support the rigors of advanced training and a healthy lifestyle. Students will be able to successfully design and implement their own body training system/regimen. **Prerequisite**: Students must obtain a written recommendation from their previous PE teacher or athletic coach.

# Language Arts

| Course | Number | Grade | Credit |
|---|---|---|---|
| Honors English I | 230107H | 9 | 1 |
| Regular English I | 230107 | 9 | 1 |
| Honors English II | 230110H | 10 | 1 |
| Regular English II | 230110 | 10 | 1 |
| Honors English III | 230113H | 11 | 1 |
| Regular English III | 230113 | 11 | 1 |
| Technical English III | 231111-3 | 11 | 1 |
| AP English Language and Composition | 230166 | 11 | 1 |
| Regular English IV | 230116 | 12 | 1 |
| Honors English IV | 230116H | 12 | 1 |
| Technical English IV | 230116TE | 12 | 1 |
| English IV - Research Techniques/Research Through Service | 230116S | 12 | 1 |
| Creative Writing | 230511 | 9-12 | 1 |
| Critical Analysis of Film | 230402 | 12 | 1 |
| Journalism I **&/or** II | 23911 | 11-12 | 1 |
| Yearbook I **&**Yearbook II | 239141 | 11-12 | 2 |

***Please note that there are dual credit courses available for seniors for English graduation requirements***

## Honors English I

No. 230107H -Grade 9 Credit 1

This course is designed for advanced students who read proficiently and who require less time to master basic grammar. In addition, this course continues to develop competencies in language arts skills. Content includes the study of literature, composition, grammar, and vocabulary through a variety of modes. **Prerequisite: Completion of application to ELA Honors Program and teacher recommendation.**

## Regular English I

No. 230107-Grade 9 Credit 1

This introductory course includes a study of essential grammar, basic composition (including argumentative), the fundamentals of research, vocabulary building skills, and analysis of various genres of literature. An emphasis will be placed on exposure to a variety of writing styles and improvement of individual skill levels. Many projects and activities will be incorporated for student success, while emphasis will be placed on soft skills such as goal setting, self-advocacy, and speaking/listening.

## Honors English II

No. 230110H-Grade 10-Credit 1

This course is designed for advanced students who read proficiently and who require less time to master basic grammar. In addition, this course continues to develop competencies in language arts skills. Content includes the study of literary and non-literary works, composition, grammar, and vocabulary. Students taking this course are required to take state-mandated exams for sophomores. **Prerequisite: Teacher recommendation and A or B in previous English course.**

## Regular English II

No. 230110-Grade 10-Credit 1

This course is designed to present a wide range of reading experiences with print and non-print materials that have literary, informational, persuasive, and practical purposes. The course requires students to use the writing process and criteria for effective writing to demonstrate their abilities to write in a variety of forms and for multiple audiences and purposes. Students use writing-to-learn and writing-to-demonstrate-learning strategies to make sense of their reading and thinking experiences. Speaking, listening, and observing skills are used to communicate information for a variety of authentic purposes. In addition, students continue to integrate inquiry skills and technology to communicate ideas. Students taking this course are required to take state-mandated exams for sophomores. **Prerequisite: English I**

## Honors English III

No. 230113H-Grade 11-Credit 1

Honors English III covers American literature with emphasis placed on reading and writing analytically, critically, and comprehensively. The course requires independent reading of approved American writers along with production of several compositions during the year. Great importance is placed on grammar, vocabulary, and learning to write clearly and concisely, as well as developing reading and writing stamina in preparation for college. Students in Honors English III will complete a full-length research paper following MLA guidelines**. Prerequisite: Teacher recommendation and A or B in previous English course.**

## Regular English III

No. 230113-Grade 11-Credit 1

This course is designed for students who have completed English II. It continues to develop competencies in language arts skills and provides students with knowledge and the appreciation of great American writers and their works. Content includes the study of literature, composition, grammar, and vocabulary through a variety of modes.

## AP English Language & Composition

No. 230166-Grade 11-Credit 1

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. **Prerequisite: Teacher recommendation and A or B in previous English course.**

## Honors English IV

No. 230116H-Grade 12-Credit 1

This course not only reviews grammatical, mechanical, and usage principles but also syntax and semantics. Writing skills are expanded to include the following types of compositions: précis, critiques, analysis, expositions, comparisons, and research themes. The literature portion focuses on the study of dramas, poetry, novels, and essays by English writers. Supplementary reading of periodical literature and fiction and non-fiction is required in addition to book reports from a classical reading list. **Prerequisite: Teacher recommendation and A or B in previous English course.**

## Regular English IV

No. 230116-Grade 12-Credit 1

English IV focuses on the works of great English writers during various literary periods. Grammatical and mechanical principles are reviewed with special emphasis on usage. Writing skills are expanded to include various types of outlines, critiques, character analyses, exposition, and research techniques. Supplementary reading of periodical literature and fiction and non-fiction books is required.

## Technical English IV

No. 230116TE– Grades 12 – Credit 1

This English course is available for seniors only. Students will develop and experience methods and skills for writing scientific, technical and business papers while designing, creating, and marketing a senior project. This course is an alternative for Regular English IV as a graduation requirement. Students must be enrolled in an ATC course simultaneously. This course is a cross-curriculum course; therefore, students must be enrolled in an ATC course simultaneously. **Prerequisites: teacher recommendation, student interview, and a minimum of C- average in English III or Technical English III.**

## English IV - Research Techniques/Research Through Service

No. 230116S – Grades 12 – Credit 1

This English course is available for seniors only. Students will develop and experience methods and skills for research writing while creating, implementing, and presenting a senior service project. This course is an alternative for Regular English IV as a graduation requirement. Target students are those not currently enrolled in an ATC course and not planning to pursue a bachelor's degree. **Prerequisites: teacher recommendation, student interview, and a minimum of C average in English III or Technical English III.**

## Creative Writing

No. 230511 – Grades 9-12 – Credit 1

This course is an introduction to the art of creative writing and publishing. Students will have opportunities to explore a variety of poetry and prose styles, as well as respond to literature, art mediums, quotes, and music to generate writing ideas. The central focus of the class will be on various processes for creating, using mentor texts as inspiration and models, and learning from providing and listening to feedback. Thus, peer reviews and sharing ideas are essential elements to this course. Participants will learn to engage in a supportive, creative community that empowers individual curiosity and artistic risk taking.

## Critical Analysis of Film

No. 230402 – Grade 12 – Credit 1

This course is a writing course in which students are introduced to film analysis by examining how narratives, cinematography, editing, music, lighting, and camera angles create meaning in film. Films are also examined for social, cultural, and ideological significance. Students will view and critique films (with emphasis on the quality of production and direction) and study the major historical, theoretical, and critical developments in film, and then write analytical essays in which students synthesize these developments. The course consists of films included in the American Film Institute's top 100 Films List. THIS COURSE IS BEST SUITED FOR STUDENTS AT THE SENIOR LEVEL; MANY FILMS IN THIS COURSE MAY BE VIEWED AS MATURE/CONTROVERSIAL AND SUITABLE FOR MATURE AUDIENCES ONLY. PARENTAL PERMISSION IS REQUIRED.

## Journalism I &/or II (Newspaper)

No. 239111P- Grades 11-12-Credit 1

Journalism introduces the students to the unique characteristics of journalistic expression. Students study the historical and cultural impact of journalism. Publishing the school newspaper is a part of the course. Students may sign up for the class twice for a total of 2 credits. Students sign up and selections are made on the basis of interviews and qualifications. (Journalism I-Fall; Journalism II-Spring). **Prerequisite: English teacher recommendation AND permission of advisor**

## Yearbook I &Yearbook II

No. 239141-Grade 11-12 Credit 2

This special topics class is a hands-on experience in creating pages that will, after publication, be the finished yearbook. Students learn about the process of selling advertisements, creating page layouts that record school events, student life, clubs, organizations, and sports, and selling the finished yearbook. This course includes organizing, editing, and revising the finished edition of the Laker Yearbook to be professionally published. **Prerequisite: Teacher recommendation AND permission of advisor.**

Table of Contents

# Mathematics

**All students must earn *4* credits in mathematics in order to fulfill graduation requirements at Calloway County High School. Students should refer to diploma requirements as a guide for making math selections. Students must take only one course from each of the levels of mathematics as listed below to fulfill graduation requirements. Students will receive mathematics credit toward graduation for only one course in each level. For example, a student may choose to take Pre-Algebra/ Algebra I his/her freshman year, Geometry his/her sophomore year, Algebra II his/her junior year, and Math for Business and Industry for Math Credit his/her senior year if he/she elects to earn the Standard Diploma. Algebra I may be taken at the middle school. In this case, students will be expected to take a minimum of two courses from Level Four. Please note prerequisite(s) for each course.**

**Students will not be allowed to double up in math in grades 9-11, with the exception of students taking the following (Honors Algebra I and Honors Geometry OR Honors Geometry and Honors Algebra II) during the same year with teacher recommendation. Doubling up during the senior year will be on an individualized case-by-case basis.**

| Course | Number | Grade | Credit |
|---|---|---|---|
| **LEVEL ONE** | | | |
| Algebra I | 270304 | 9 | 1 |
| Honors Algebra I | 270304H | 9 | 1 |
| **LEVEL TWO** | | | |
| Geometry | 270401 | 9-12 | 1 |
| Honors Geometry | 270401H | 9-11 | 1 |
| **LEVEL THREE** | | | |
| Intermediate Algebra Bridge | 270703 | 11-12 | 1 |
| Algebra II | 270311 | 11-12 | 1 |
| Honors Algebra II | 270311H | 10-11 | 1 |
| **LEVEL FOUR** | | | |
| Honors Pre-Calculus | 270501H | 10-12 | 1 |
| Calculus | 270511 | 10-12 | 1 |
| Math for Business and Industry for Math Credit | 080780 | 12 | 1 |
| Technical Mathematics | 270643 | 12 | 1 |
| Algebra III | 270320 | 11-12 | 1 |
| Honors Advanced Topics in Mathematics | 270621H | 10-12 | 1 |
| AP Calculus | 270513 | 10-12 | 1 |

***Please note that there are dual credit courses available for juniors and seniors for Math graduation requirements***

## Algebra I

No. 270304-Grade 9-Credit 1

This course is the study of high school Algebra 1 content. Upon completion of the course, students should be able to represent relationships mathematically, develop fluency in writing, interpret expressions and equations, translate between various forms of linear equations and inequalities and use them to solve problems including those that require a system of equations, solve linear equations, apply related solution techniques and the laws of exponents to solve simple exponential equations, understand function definition and notation, contrast linear and exponential graphical representations, make judgments about the appropriateness of linear models, perform arithmetic operations on inequalities, interpret functions and fluently use function notation, construct and compare linear and exponential models and solve related problems, factor quadratic and cubic expressions solve quadratic equations to interpret related quadratic functions and explore non-linear relationships. This course should be designed to meet the high school graduation credit for Algebra 1 and to build a solid foundation necessary for future high school math courses. **Prerequisite: Teacher Recommendation**

## Honors Algebra I

No. 270304H-Grade 9-Credit 1

This course is designed for students in the accelerated program with a high degree of proficiency in abstract mathematical ideas. The course includes skills and concepts of Algebra I, and enrichment topics/activities as appropriate. **Prerequisite: Completing Accelerated Math 8 in the 8th grade with a B or better and/or Teacher Recommendation**

## Geometry

No. 270401-Grade 9-12-Credit 1

This course is required for the pre-college curriculum. Focus will be on discovery and realistic applications of geometric relationships and principles. Topics include constructions, inductive and deductive reasoning, points, lines, planes, angles, triangles, plane figures, similarity and congruence, circles, three-dimensional geometry, area, volume, locus, coordinate geometry, and transformation. **Prerequisite: Algebra I or Teacher Recommendation**

## Honors Geometry

No. 270401H-Grade 9-11-Credit 1

This course (which may be substituted for the required course of Geometry) is designed for pupils with a higher degree of proficiency in abstract mathematical ideas. This course includes the skill and concepts of Geometry, and enrichment topics/activities as appropriate. **Prerequisite: Completion of Honors Algebra I or Honors Algebra II with a B or better, and Teacher Recommendation**

## Intermediate Algebra Bridge

No. 270703-Grade 11-12-Credit 1

The purpose of this course is to reinforce concepts taught in Algebra I and Geometry in order to prepare students for further math courses and/or entering the workforce. Special emphasis will be given on mathematics modeling and applied mathematics. **Prerequisite: Algebra I, Geometry, and Teacher Recommendation**

## Algebra II

No. 270311-Grade 9-12-Credit 1

This course is required for the pre-college curriculum. In addition to expanding the mathematical concepts of Algebra I, emphasis should be placed on preparation for study of higher mathematics abstract thinking skills, the function concept, and the algebraic solution of problems in various content areas. Topics include the complex number system and matrices, quadratic equations and inequalities, graphs of functions and relations, exponential and logarithmic functions, progressions and series, and binomial theorem, linear programming, and introductory work in conic sections, probability and trigonometry. **Prerequisite: Algebra I or Honors Algebra I**

## Honors Algebra II

No. 270311H-Grade 9-10-Credit 1

This course is designed for students in the accelerated program with a high degree of proficiency in abstract mathematical ideas. The course includes skills and concepts of Algebra II, and enrichment topics/activities as appropriate. Students will be required to take the Algebra 2 End of Course Exam upon completion of this course. **Prerequisite: Honors Algebra I with a grade of B or better or Teacher Recommendation**

## Technical Mathematics

No. 270643 – Grade 12 – Credit 1

This course is designed for students who have successfully completed Algebra I and Geometry (or the equivalent), as well as any state-required mathematics assessment(s). This course will continue to emphasize any required Kentucky Academic Standards for Mathematics, not addressed in Algebra I and Geometry. Some mathematical concepts from algebra, geometry, and trigonometry and applications relevant to these topics, beyond what was addressed in the student's foundational courses, are studied. Topics to be covered include, but are not limited to, unit conversions, variation, measurement of geometric figures, vectors, and solving right and oblique triangles using trigonometry. Emphasis is on applications in various technologies.

## Honors Pre-Calculus

No. 270501H Grade 9-12-Credit 1

This course is designed for students to attain the concepts necessary to be successful in a Calculus course, with extensions and acceleration provided for students who qualify. This ELECTIVE course is intended for students who plan to take a Calculus course in high school or college. It includes topics traditionally taught such as Trigonometry and Analytic Geometry and integrates additional work with other functions. Topics include functions, their inverse, graphs and their applications including polynomial, rational, exponential, logarithmic, circular, trigonometric, absolute value and natural number; analytic geometry, polar coordinates, complex number system; vectors including applications to lines, planes, and matrices, mathematical induction; and graphs in three dimensions. **Prerequisites: Honors Geometry, Honors Algebra II with a B or better or Teacher Recommendation**

## Calculus

No. 270511 – Grade 10-12 – Credit 1

This course is designed for students who have completed courses containing all the required high school Kentucky Academic Standards for Mathematics. This course is designed to address all the concepts normally covered in differential and integral calculus. Upon completion of the course, students should be able to (1) understand the concept of the limit of a function; (2) describe the asymptotic and unbounded behavior of functions; (3) understand continuity as a property of functions; (4) demonstrate an understanding of the derivative; (5) apply differentiation techniques; (6) understand and apply the Fundamental Theorem of Calculus; (7) apply techniques of integration; and (8) use integration to solve problems. **Co-requisites: Trigonometry and Advanced Topics in Mathematics or MAT 150 (dual credit) and Teacher Recommendation**

## Math for Business & Industry for Math Credit

No. 080780-Grade 12-Credit 1

This class will provide seniors with the knowledge and skills to manage one's financial resources effectively for lifetime financial security. Additionally, seniors will study math concepts that are very specific to the business field such as economics, budgeting, credit, consumer rights, investments, and retirement planning. **Prerequisite: <u>Maximum</u> of 18 on ACT math section, successful completion of Algebra I, Geometry and Algebra Bridge OR Algebra II course**s.

## Algebra III

No. 270320 – Grade 11-12-Credit 1

The content of this course goes beyond a traditional Algebra 2 course and should provide opportunities for students to: solve applied (in context) problems using various types of equations (linear, quadratic, exponential, trigonometric, logarithmic and power functions piece-wise), read and analyze real-life problems using mathematical modeling, perform matrix operations, graph and interpret data represented by linear, quadratic, exponential, logarithmic and 18 power functions, use numerical and graphical data to make reasonable and valid conclusions, solve applied problems that can be modeled with equations and inequalities involving absolute value, solve systems of linear equations using several techniques including matrices, use and verify trigonometric identities, solve applied problems that can be modeled with exponential and logarithmic equations, find terms of sequences and find the sum of finite series. **Prerequisites: Algebra II or Honors Algebra II and Geometry or Honors Geometry each with a grade of C or better, or Teacher Recommendation.**

## Honors Advanced Topics in Mathematics

No. 270621H -Grade 10-12-Credits 1

This elective course is designed for students who have completed all math courses in the Pre-College Curriculum. Its purpose is to provide exploration, enrichment, maintenance and improvement of previously acquired pre-college skills. A wide variety of topics could be offered in this course, as it is an intensive study of algebra and trigonometry. The course is similar to MAT 150 – College Algebra & Trigonometry, but without the college credit. It is designed to prepare students for a College Calculus course. **Prerequisite: Honors Algebra II or Algebra II and Honors Geometry or Geometry.**

## AP Calculus

No. 270513 -Grade 10-12-Credits 1

AP Calculus AB is an introductory college-level calculus course. Students cultivate their understanding of differential and integral calculus through engaging with real-world problems represented graphically, numerically, analytically, and verbally and using definitions and theorems to build arguments and justify conclusions as they explore concepts like change, limits, and the analysis of functions.

Table of Contents

# Science Department

| Course | Number | Grade | Credit |
|---|---|---|---|
| Earth/Space Science | 304611 | 9 | 1 |
| Honors Earth/Space Science | 304611H | 9 | 1 |
| Biology | 302601 | 10 | 1 |
| Honors Biology | 302603H | 10 | 1 |
| Introduction to Chemistry **&** Physics | 304058 | 11 | 1 |
| Zoology & Genetics | 302615 | 11-12 | 1 |
| Chemistry | 304521 | 10-12 | 1 |
| Honors Chemistry | 304521H | 9-12 | 1 |
| Advanced Chemistry | 304522 | 10-12 | 1 |
| AP Chemistry | 304526 | 10-12 | 1 |
| Conceptual Physics I | 304821 | 11-12 | 1 |
| Honors Physics I | 304821H | 11-12 | 1 |
| Environmental Science | 304620 | 10-12 | 1 |
| AP Environmental Science | 304622 | 10-12 | 1 |

## Earth/Space Science

No. 304611-Grade 9-Credit 1

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

## Honors Earth/Space Science

No. 304611H-Grade 9-Credit 1

Students develop a conceptual understanding of Earth/space science, as outlined in the Kentucky Academic Standards for Science, through the use of science and engineering practices. They experience Earth/space concepts such as energy in the Earth system, geochemical cycles, formation and ongoing changes of the Earth system, and formation and ongoing changes of the universe. Students will learn these core ideas within these topics through the use of the science and engineering practices and crosscutting concepts. The science and engineering practices are skills students will use as they investigate the natural world and develop solutions to problems. The crosscutting concepts are conceptual ways of thinking that cross the domains of science. **Pre-requisites: A or B in 8th grade science AND A or B in 8th grade math; and/or Teacher Recommendation.**

## Biology

No. 302601-Grade 10-Credit 1

This **REQUIRED** course is designed to help the student develop a better understanding of the fundamental unity in the diversity of life forms and how all organisms carry out the same life functions. This includes the development of skills in using tools and techniques of biologists.

## Honors Biology

No. 302603H-Grade 10-Credit 1

This course may substitute for the required course, Biology, and is designed to help the student develop a better understanding of the fundamental unity in the diversity of life forms and how all organisms carry out the same life functions. Emphasis is given to the development of thinking/reasoning skills. Students will be required to complete the Biology End of Course exam upon completion of this course, depending upon their individual course sequence. **Prerequisite: A or B in previous science course and/or Teacher recommendation**

## Introduction to Chemistry and Physics

No. 304058-Grade Level: 11-Credits 1

**This course is REQUIRED for freshmen beginning fall 2018.** This course serves as an introduction which integrates the basic concepts of chemistry and physics as outlined in the Kentucky Academic Standards for Science. Students learn how the physical and chemical properties of matter can be explained and predicted in terms of atomic and molecular structures and forces. They also learn how balanced and unbalanced forces influence the behavior of objects. Students will learn these core ideas within these topics through the use of the science and engineering practices and crosscutting concepts. The science and engineering practices are skills students will use as they investigate the natural world and develop solutions to problems. The crosscutting concepts are conceptual ways of thinking that cross the domains of science.

## Zoology & Genetics

No. 302615-Grade 11-12- Credit 1

Zoology is an **ELECTIVE** course of study that reinforces and expands fundamental concepts of biology. It will include an in-depth study of the animal kingdom. Laboratory application will be incorporated to reinforce the concepts taught. Biotechnology is an **ELECTIVE** course of study in which the major concepts addressed include mutation, heredity, genetic principles, DNA and RNA, recombination, and viruses. **Prerequisites: Biology (with a grade of A or B) and teacher recommendation**

## Chemistry

No. 304521-Grade 10-12-Credit 1

This **ELECTIVE** course serves as an introduction to Chemistry with a strong emphasis on chemical theory and the study of fundamental concepts. Throughout the course, laboratory applications are incorporated to reinforce the concepts taught. This course may be used as a required part of the pre-college curriculum. **Prerequisites: Algebra I (C or higher), Teacher recommendation**

## Honors Chemistry

No. 304521H-Grade 9-12-Credit 1

This **ELECTIVE** course may substitute for the elective course, Chemistry, and serve as an introduction to Chemistry with a strong emphasis on chemical theory and the study of fundamental concepts. Throughout the course, laboratory applications are incorporated to reinforce the concepts taught. This is an accelerated course that is taught at a higher level and faster pace than Chemistry and is recommended for accomplished math students only. This course may be used as a required part of the pre-college curriculum. **Prerequisites: A or B in previous science course, Algebra I (with a grade of A or B), and/or Teacher recommendation**

## Advanced Chemistry

No. 304522 Grade 10-12-Credit 1

Advanced Chemistry, an elective course, reinforces and expands fundamental concepts through a strong emphasis on laboratory work. **Prerequisites: Honors Chemistry (with a grade of A or B), Algebra II, Teacher recommendation**

## AP Chemistry

No. 304526-Grade 10-12-Credit 1

AP Chemistry, an elective course, is designed as the equivalent to the general chemistry courses taken during the first college year, and follows the curriculum established by the College Board. To receive AP credit, both AP Chemistry and Advanced Chemistry courses must be taken together. **Prerequisites: Honors Chemistry (with a grade of A or B), Algebra II, Teacher recommendation**

## Conceptual Physics I

No. 304821-Grade 11-12-Credit 1

Students develop a conceptual understanding of physics as outlined in the Kentucky Academic Standards for Science. They 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. **Prerequisites: Algebra I (with a grade of C or higher)**

## Honors Physics I

No. 304821H-Grade 11-12-Credit 1

Students develop an understanding of physics as outlined in the Kentucky Academic Standards for Science using more advanced math practices. They 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. **Prerequisites: Algebra II or Honors Algebra II (with a grade of A or B), Teacher recommendation**

## Environmental Science

No. 304620-Grad 10-12-Credit 1

Students will develop understanding of environmental concepts as outlined in the Kentucky Academic Standards for Science, such as cycling of matter, biodiversity, earth systems, energy flow and climate, and human impact. Students will learn these core ideas through the use of the science and engineering practices and crosscutting concepts. The science and engineering practices are the skills students will use as they investigate the natural world and develop solutions to problems. The crosscutting concepts are conceptual ways of thinking that cross the domains of science.

## AP Environmental Science

No. 304622-Grade 10-12-Credit 1

The AP Environmental Science course is designed to be the equivalent of a one-semester, introductory college course in environmental science, through which students engage with the scientific principles, concepts, and methodologies required to understand the interrelationships of the natural world. The course requires that students identify and analyze natural and human-made environmental problems, evaluate the relative risks associated with these problems, and examine alternative solutions for resolving or preventing them. Environmental Science is interdisciplinary, embracing topics from geology, biology, environmental studies, environmental science, chemistry, and geography. College credit is earned with a qualifying score on an AP exam. **Prerequisites: Biology, and/or Teacher recommendation**

# Social Studies Department

| Courses | Number | Grade | Credit |
|---|---|---|---|
| Integrated Social Studies | 459801 | 9-10 | 1 |
| Honors Integrated Social Studies | 459801H | 9-10 | 1 |
| World History | 450835 | 9-10 | 1 |
| Honors World History | 450835H | 9-10 | 1 |
| U. S. History | 450809 | 11 | 1 |
| Honors U.S. History | 450809H | 11 | 1 |
| AP U.S. History | 450814 | 11 | 1 |
| Kentucky Studies | 450875 | 9-12 | 1 |
| Law and Justice | 451039 | 11-12 | 1 |
| Political Science | 451029 | 11-12 | 1 |
| Psychology | 459901 | 11-12 | 1 |
| Sociology | 451121 | 11-12 | 1 |
| HAVPA | 500111 | 11-12 | 1 |
| AP European History | 450844 | 11-12 | 1 |
| AP U.S. Government & Politics | 451030 | 11-12 | 1 |
| AP World History | 450876 | 11-12 | 1 |

***Please note that there are dual credit courses available for juniors and seniors for Social Studies graduation requirements***

## Integrated Social Studies

No. 459801-Grade 9-10-Credit 1

This **REQUIRED** class focuses on the application of social studies skills to understand the development of human culture. 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 the more intensive studies that they will be participating in future courses. Major emphasis will be placed on civics, government, economics and geography.

## Honors Integrated Social Studies

No.459801H-Grade-9-10-Credit 1

This course (which may be substituted for the **required** course of Integrated Social Studies) is designed for advanced students who read proficiently and can synthesize and interpret information. It focuses on the application of social studies skills to understand the development of human culture. 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 the more intensive studies that they will be participating in future courses. Major emphasis will be placed on civics, government, economics and geography. **Prerequisite: Must have a minimum of a B+ average or higher in previous history course(s) along with a Teacher Recommendation.**

## World History

No. 450835-Grade 9-10-Credit 1

This **REQUIRED** course, which extends students' knowledge of the world gained in grades 6 and 7, reviewing civilizations before 1500 but focusing mainly on the world since 1500. World History is a survey of the history of the world focusing on cultural and political aspects; ancient and modern history; the study of western and non-western civilizations; and current events.

## Honors World History

No. 450835H-Grade 9-10-Credit 1

This course (which may be substituted for the **required** course of World History) is designed for advanced students who read proficiently and can synthesize and interpret information. It extends students' knowledge of the world gained in grades 6 and 7, reviewing civilizations before 1500 but focusing mainly on the world since 1500. World History is a survey of the history of the world focusing on cultural and political aspects; ancient and modern history; the study of western and non-western civilizations; and current events. **Prerequisite: Must have a minimum of a B+ average or higher in previous history course(s) along with a Teacher Recommendation.**

## U. S. History

No. 450809-Grade 11-Credit 1

The purpose of this **REQUIRED** course is to provide students with an understanding of their American heritage as well as an awareness of how our republic developed and functions. This course serves as a capstone to the study of America's history in grades 5 and 8. After a brief review, the focus should be on the Reconstruction (1865) to contemporary issues, looking at the forces that shaped and continue to shape political, economic, and social institutions and the impact of those forces on the development of the United States. The course may be taught chronologically, topically, and/or conceptually/thematically.

## Honors U.S. History

No. 450809H-Grade 11-Credit 1

This one-semester course, which runs concurrently with AP U.S. History, is designed to give students an understanding of their American heritage by studying United States History from Reconstruction (1865) to contemporary issues through interpretive questions derived from the exploration of selected themes. It incorporates an examination of topics providing an overview of history and enables students to recognize the context and significance of specialized interpretive problems. This class will be used to fulfill the graduation **REQUIREMENT** for U.S. History. **Prerequisite: Must have a minimum of a B+ average or higher in previous history course(s) along with a Teacher Recommendation.**

## HIS 222

No. 800051MSU222-Grade 11-Credit 1

American Experience Since 1865 is an introductory survey of the history of the U.S. since 1865. Students will examine three themes: the forces that transformed America from a predominantly rural, agricultural society to a predominantly urban, industrial one; the rising political consciousness of various American groups and the expanding regulatory role of the federal government; and the emergence of America as a world power. **REQUIREMENT** for U.S. History. **Prerequisite: Social Studies teacher recommendation and must meet Murray State University dual credit requirements.**

## AP U.S. History

No. 450814-Grade 11-12-Credit 2

Advanced Placement covers U.S. History from colonization to present day; prominent historians, organizations; major policies; and theoretical foundations. To receive AP credit, both courses must be taken as a year-long course. College credit is earned with successful completion of AP exam. This class may be used to fulfill the graduation **REQUIREMENT** for U. S. History. AP U. S. History follows the curriculum established by the College Board and prepares students to take the Advanced Placement examination in American History. A test given by the College Board in May provides the successful student with college credit. **Prerequisite: Must have a minimum of a B+ average or higher in previous history course(s) along with a Teacher Recommendation.**

## Kentucky Studies

No. 450875 – Grade 9-12 – Credit 1

The Kentucky Studies elective course brings together various elements of Kentucky Studies stressed in the earlier grades. The course focuses on the historical and cultural forces that have influenced the people and the institutions of the Commonwealth. The Kentucky Studies elective should give equal chronological coverage to Kentucky before and after the Civil War. It should stress the role of geography in the state's development and the importance of the regional variations across Kentucky. The customs of the people, their values, their folklore, and their family life should be examined in the context of such forces as agrarianism and urbanism. All of this should be done through the historical context, and should enhance the forces shaping government, politics and social change. Topics of study may be the arts, civil rights, communications, education, environment, labor history, religions, the sciences and transportation.

## CIV 201

No. 800051MSUC 11-12 Credit 1

World Civilizations I is an interdisciplinary survey of worldwide historical events, interactions, and trends from the origins of humanity to 1500. This lecture/discussion course follows a chronological outline and focuses on diverging perspectives and the complexities of continuity and change. Topics examined may stress the development of power structures; class, gender, and racial hierarchies; religions; technologies; and global exchange and conflict in the ancient and medieval worlds. **This class may be used to fulfill the social studies elective REQUIREMENT for the Comprehensive Diploma**. **Prerequisite: Social Studies teacher recommendation and must meet Murray State University dual credit requirements.**

## Law and Justice

No. 451039-Grade 11-12 Credit 1

Law and Justice is a study of law-civil, criminal, constitutional, and international; the legal and justice systems. Students will examine the need for rules and regulations; interpretations of the constitution, both state and federal; Supreme Court decisions; the Bill of Rights, and individual rights law, criminal law, family law, and consumer law. The study of the basic social contracts of society will enable students to understand the preferred democratic values: justice, equality, responsibility, freedom, rule of law, human rights, honesty, equity, rational process and human dignity. **This class may be used to fulfill the social studies elective REQUIREMENT for the Comprehensive Diploma**. **Prerequisite: Students must have completed Integrated Social Studies.**

## Political Science

No. 451029-Grade 11-12-Credit 1

The purpose of this course is to provide students with an understanding of their American heritage as well as an awareness of how our republic was developed and functions. Through such a study, students come to a greater appreciation of the democracy within which they live and their role in preserving that democracy. There is an emphasis on American government and politics, as well as international relations and comparative governments. The relationship of power and decision-making are examined through the study of the Constitution of the United States and the amendments, other historical documents, the state Constitution, and local governing bodies. **This class may be used to fulfill the social studies elective REQUIREMENT for the Comprehensive Diploma**. **Prerequisite: Students must have completed Integrated Social Studies and have a Teacher Recommendation.**

## Psychology

No. 459901-Grade 11-12-Credit 1

Psychology is the scientific study of behavior and mental processes. Through the study of psychology, students explore both the cognitive aspects of the mind and the affective aspects of the human experience. This course is designed to give a brief overview of psychology today. **This class may be used to fulfill the social studies elective REQUIREMENT for the Comprehensive Diploma**.

## Sociology

No. 451121-Grade 11-12-Credit 1

Sociology is the scientific study of human society. It is concerned with the behavior of human beings in group situations. The study of sociology, therefore, consists of trying to understand: The basic units and institutions of social life, such as the family, schools, neighborhoods, rural and urban communities, and the many other kinds of groups with which humans identify. This group can include occupational, political, religious, ethnic, family, economic status, or ideology. The sociological perspectives focus on how those social relationships arise, why they persist, why antagonisms develop, and how they maintain social order to contribute to social change. **This class may be used to fulfill the social studies elective REQUIREMENT for the Comprehensive Diploma.**

## HAVPA

No. 500111-Grades 10 -12 -Credit 1

Students will become aware of how time, place, and society influence the arts. The course enables students to respond to all art forms through describing, analyzing, interpreting, and evaluating. The first semester reviews the elements and structures of visual art, music, dance, and drama, as well as the history of art from the prehistoric period to the Baroque. Students will become aware of how time, place, and society influence the arts. The course enables students to respond to all art forms through describing, analyzing, interpreting, and evaluating. The second semester explores the history of art from the Neoclassical to contemporary times.

## AP European History

No. 450844-Grades 11-12-Credit 1

This course focuses on developing students' understanding of European history from approximately 1450 to the present. The course has students investigate the content of European history for significant events, individuals, developments, and processes in four historical periods, and develop and use the same thinking skills and methods (analyzing primary and secondary sources, making historical comparisons, chronological reasoning, and argumentation) employed by historians when they study the past. The course also provides five themes (interaction of Europe and the world; poverty and prosperity; objective knowledge and subjective visions; states and other institutions of power; and individual and society) that students explore throughout the course in order to make connections among historical developments in different times and places. **This class may be used to fulfill the social studies elective REQUIREMENT for the Comprehensive Diploma**. College credit is earned with successful completion of AP exam. **Prerequisite: Students must have completed World History and have a Teacher Recommendation**

## AP U.S. Government & Politics

No. 451030-Grades 11-12-Credit 1

This one-semester course is designed to give students an analytical perspective on government and politics in the United States through the study of general concepts used to interpret U. S. politics and the analysis of specific institutions, groups, beliefs, and ideas. Topics include the Constitution, democratic theory, pluralism, political processes, parties, governmental institutions, public policy, and civil rights. **This class may be used to fulfill the social studies elective REQUIREMENT for the Comprehensive Diploma**. AP U. S. Government & Politics follows the curriculum established by the College Board and prepares students to take the Advanced Placement examination in U. S. Government & Politics. A test given by the College Board in May provides the successful student with college credit. **Prerequisite: Teacher Recommendation**

## AP World History

No. 450835 **&** No. 450876-Grades 11-12-Credits 2

This **elective** course includes an advanced study of world history from approximately 8000 B.C.E. to present day and follows the curriculum developed by College Board. The purpose of AP World History is to develop a deeper understanding of the global changes that have occurred in human societies throughout the course of history. Study includes the nature, causes, and consequences of global change, as well as comparisons among major societies. **This class may be used to fulfill the social studies elective REQUIREMENT for the Comprehensive Diploma**. AP World History offers interested and motivated students the opportunity to examine the processes that have resulted in the interweaving of the world into a diverse and integrated whole. To receive AP credit, both courses must be taken as a year-long course. **Prerequisites: Teacher recommendation.** Table of Contents

# CCHS Agricultural Education

*Growing success one student at a time*

## You can make a difference with Agriculture

Are you looking for a future full of challenge, excitement and meaning? Today's agriculture may be just what you are looking for. Agriculture finds solutions to problems facing today's global society: how we feed and clothe the world's people, how to make food safer and more affordable, and much more. And the best part is: it's fun! If you have your mind set on solving real-world problems while developing leadership skills for today and tomorrow, with your sights on success for yourself, your community and the world, then look at the different courses we offer in this department.

## College Credit

Opportunities abound for high school agriculture students to earn college credit through the Murray State University Racer Academy of Agriculture and the Calloway County Agriculture Department. In fact, with astute scheduling, a student can graduate with 18 hours of college credit in agriculture. Add to that the other opportunities for college credit, and you could be a college sophomore upon graduation from high school.

## Career opportunities in Agriculture

There are more than 300 careers in agriculture. More than 20 % of Americans work in the agricultural industry in jobs such as marketing, research, communications, horticulture, agribusiness, natural resources, and more. With only 2% of the population working on farms or ranches, it is important that we provide a basis for students interested in pursuing a career in production agriculture too. It is a new age in agriculture with a global economy and to farm successfully a producer must be well informed. Our Ag. Department offers 15 classes that give students a wide variety of educational experiences. Agriculture Career Clusters help to prepare students for a promising future by directing them into an area of concentration. So, whether you are interested in landscaping or floral design, animals – large or small, crops or construction, CCHS' Ag. Dept. has something for you!

# Agricultural Education

| Course | Number | Grade | Credit |
|---|---|---|---|
| Principles of Agri-Science and Technology | 030715 | 9-11 | 1 |
| Small Animal Technology | 020503 | 9-12 | 1 |
| Animal Science | 020501 | 9-12 | 1 |
| Veterinary Science | 020511 | 11-12 | 1 |
| Introduction to Greenhouse & Crop Production | 010611 | 9-11 | 1 |
| Landscape & Turf Management | 010631 | 9-12 | 1 |
| Agri Business/Farm Management | 010131 | 9-12 | 1 |
| Greenhouse Technology | 010641 | 11-12 | 1 |
| Agricultural Construction Skills | 010241 | 11-12 | 1 |
| Agricultural Education Co-op | 030790 | 12 | 1 |
| Agricultural Education Internship | 030791 | 12 | 1 |

***Please note that there are dual credit courses available for juniors and seniors for Agriculture elective opportunities***

## Introduction to Agriculture
## Principles of Agri-Science and Technology

No. 030715-Grade 9-11-Credit 1

The purpose of this semester course is to provide orientation and exploration of various agricultural occupations. The curriculum provides the student opportunities to develop skills in the following areas: career opportunities, selecting and planning occupational experience programs, record keeping, leadership development, and basic skills in agricultural mechanics, animal science, soil science, and plant science.

## Small Animal Technology

No. 020503-Grade 9-12-Credit 1

This course develops scientific knowledge, management practices, and marketing strategies in small and specialty animal technology. The curriculum includes identification, anatomy, physiology, nutrition, health, selection, and care of companion animals. Species addressed typically include dogs, cats, rabbits, fish, rodents, companion birds, and horses. Content will be enhanced with appropriate applied scientific laboratory activities. Leadership development will be provided through FFA (Future Farmers of America). Each student will be expected to have a supervised agricultural experience program.

## Animal Science

No. 020501-Grade 9-12-Credit 1

This course includes livestock production, judging and selection, breed identification, nutrition, diseases and health care. Instruction will be enhanced with field trips. Leadership development will be provided through FFA.

## Veterinary Science

No. 020511 – Grade 11-12 Credit 1

Veterinary science topics include safety, sanitation, anatomy and physiology, clinical exams, hospital procedures, parasitology, posology, laboratory techniques, nutrition, disease, office management, and animal management. Careers are also explored. Leadership development will be provided through the National FFA Organization. Each student will be expected to have an agricultural experience program. **Prerequisite: Animal Science and Small Animal Technology credits with a final grade of A or B, and/or teacher recommendation.**

## Introduction to Greenhouse & Crop Production

No. 010611-Grade 9-11-Credit 1

This course provides an in-depth study of plant nutrition, breeding, and crop production. The course also details the physical and chemical properties of soil. Farm services and supply businesses are explored as well as the cutting edge of farm technology. Leadership development will be provided through FFA.

## Landscape & Turf Management

No. 010631-Grade 9-12-Credit 1

This course provides experience in the proper location of trees, shrubs and flowers around buildings. The course consists of: site evaluation, which includes sketching, planning and drawing landscape plans, performing calculations related to landscape construction, identification of landscape plants and their characteristics. Instruction will be enhanced with hands-on activities. FFA activities will provide leadership development.

## Agri-Business/Farm Management

No. 010131-Grade 9-12-Credit 1

This course develops basic skills to manage a farm business. Content includes: managing production, credit and taxes, sales, market analysis, and developing a farm plan. FFA activities will provide leadership development. FFA activities will provide leadership development.

## Greenhouse Technology

No. 010641-Grade **11-12**-Credit 1

This course involves students in hands-on learning experience in plant propagation, plant growth, structure and environment of plants for bed and container growing, production cycles, variety selection, fertilization, pest and disease control, use of growth regulators, and sales. Leade7rship development will be provided through FFA. **Prerequisite: Agriculture course with a final grade of A and/or teacher recommendation**

## Agricultural Construction Skills

No. 010241-Grade 11-12-Credit 1

This course helps to prepare students to construct and maintain agriculture structures and equipment. Basic skills are developed such as: tool identification, interpreting plans, carpentry, welding, plumbing, masonry, fencing and calculating a bill of materials. Safety will be emphasized throughout the class. Leadership development will be provided through FFA. **Prerequisite: Agriculture course with a final grade of A and/or teacher recommendation**

## Agricultural Education Co-op

No.030790 –Grade 11-12-Credit: CCHS 1

This course provides 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. Leadership development will be provided through FFA. **Prerequisite: Teacher recommendation.**

## Agricultural Education Internship

No.030791 –Grade 11-12-Credit: CCHS 1

This course provides supervised work-site experience for high school students who are enrolled in a pathway 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). Leadership development will be provided through FFA. **Prerequisite: Teacher recommendation**

## AGR 100

No. 020502M–Grade 10-12- Credit: CCHS 1; MSU 3 hrs.

**Animal Technology** 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. **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 will be provided through FFA. Each student will be expected to have a supervised agricultural experience program.

## AGR 130

No. 010101M – Grade 12 Credit: CCHS 1; MSU 3 hrs.

**Agricultural Economics** is a study of fundamental principles of economics as applied to agriculture. Attention is given to resource use, economic growth, production fundamentals, economic institutions and agriculture in relation to national and world economics. Prerequisites: MAT 140 or ACT math standard score of at least 21.

## AGR 133

No. 030707M – Grade 12 Credit: CCHS 1; MSU 2 hrs.

**Field Applications for Agriculture** will teach students methods of solving many application problems that will be encountered in the field of agriculture using applied mathematical and logical skills. The emphasis will be to use practical mathematical skills already acquired from secondary education to address agricultural situations involving computations necessary for upper level courses in agriculture. Some knowledge of agricultural situations may be required. It is not the purpose of this course to replace any advanced math requirements that are required in the various agricultural curriculums. Prerequisites: Declared area or major in Agriculture or permission of instructor.

## AGR 140

No. 010651M- Grade 10-12-Credit: CCHS 1; MSU 3 hrs.

**Plant Science** will provide instruction in a study of general plant science principles including basic plant anatomy, physiology, and interactions with the surrounding environment. Leadership development will be provided through FFA. Each student will be expected to have a supervised agricultural experience program.

## AGR 160

No. 010641M– Grade 10-12- Credit: CCHS 1; MSU 3 hrs.

**Horticulture Science** will provide instruction in production practices for container and field-grown nursery stock; identification, function, growing requirements, hardiness, problems and methods of different landscape plant materials; propagating and growing evergreens/deciduous plants; and the operation of garden centers and nurseries. Principles of home and commercial fruit production may also be included. Content may be enhanced by utilizing appropriate computer applications. Leadership development will be provided through FFA. Each student will be expected to have a supervised agricultural experience program.

## AGR 182

No. 020511M– Grade 10-12- Credit: CCHS 1; MSU 3 hrs.

**Introduction to Veterinary Science** 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 upper-classmen agricultural education students, at the high school level, 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.

## AGR 185

No. 030702M – Grade 12 Credit: CCHS 1; MSU 3 hrs.

**Agricultural Leadership and Life Knowledge** is developed for students who are interested in pursuing a career in the agricultural industry that elaborates on the roles, responsibilities and challenges in the field of agricultural leadership.

## AGR 199

No.030711M – Grade 10-12-Credit: CCHS 1; MSU 3 hrs.

**Agriculture Communications** introduces the issues of food production, nutrition, food chemistry and the development of food products in a global society. The government regulations regarding foods and the exploration of career opportunities will also be covered. Content may be enhanced with appropriate computer applications. Leadership development will be provided through FFA. Each student will be expected to have a supervised agricultural experience program. **Animal Science,** which is taught in the CCHS Agriculture Department, is a pre-requisite for this course. This is a basic course designed to increase the understanding, awareness, and critical analysis of contemporary agricultural issues and their effect upon the social, political, economic and cultural aspects of society. Topics will include environmental, bio-technology, animal, crop, career, economy and trade, agricultural policy, food quality/safety and international agriculture issues. This class is a University Studies Elective which meets Social Science requirement at MSU. **Pre-Requisite:** CCHS **Animal Science class.**

# Art

| Course | Number | Grade | Credit |
|---|---|---|---|
| Art I | 500711 | 9-12 | 1 |
| Adv Art – 2-D/Drawing & Painting | 500712 | 10-12 | 1 |
| Adv Art – 3-D/Sculpture | 500713 | 11-12 | 1 |
| Art Portfolio/AP Studio Art | 500714/500716 | 11-12 | 2 |

## Art I

No. 500711-Grade 9-12-Credit 1

Art I is designed for students with no previous art training. The course is not designed to create artists but rather to introduce students to various art media, which can help them achieve a measure of success and fulfillment while gaining knowledge.

## Advanced Art – 2-D/Drawing & Painting (formally Art II)

No. 500712-Grade 10-12-Credit 1

Students focus on the blend and relationships that occur between drawing and painting. Attention is given to two-dimensional work and utilizes one or more mediums, such as pen-and-ink, pencil, chalk, watercolor, tempera, oils, and acrylics. Students extend and refine knowledge in the creative process to visually communicate personal intent. Advanced students extend and refine knowledge in the creative process. They are encouraged to develop their own artistic styles. Students focus on making meaning by investigating and reflecting their awareness of their perceptions, knowledge, and experiences of life. The course may emphasize either drawing or painting or combine both. **Prerequisite: Must an A average in Art I AND teacher recommendation**

## Advanced Art – 3-D/Sculpture (formally Art III)

No. 500713-Grade 11-12-Credit 1

Sculpture courses promote creative expression through three-dimensional works. Students explore representational and abstract sculpture through subtractive (carving), additive (modeling), and assemblage techniques in one or more media. They produce representational and abstract sculptures that communicate personal ideas and messages through the application of the fundamentals of artistic expression while incorporating elements of art and principles of design. A study of historical and contemporary sculpture and sculptors from a worldwide perspective, and instruction and practice in the critique process are addressed. **Prerequisite: Must have had an A average in Art I AND teacher recommendation**

## Independent Study

No. 500718-Grade 12-Credit 1-2

This course provides in-depth supervised studio art to students with recognized talent in an art area. Students may receive up to two credits in independent study. **Prerequisite: Three credits in art, an A in most recent art course, and permission of instructor**

## Art Portfolio/AP Studio Art

No. 500714/500716-Grades 11-12-Credits 2

Art Portfolio/AP Studio Art offers students the opportunity to create a professional body of work that reflects personal style and talent. Students are encouraged to display their work publicly. This course is designed for students who are seriously interested in the practical experience of art. The AP assessment is not based on a written examination; instead students submit portfolios for evaluation at the end of the school year. Students can receive college credit with a score of 3 or above in AP Studio Art. **Prerequisites: Art I, Art II, & Art III, Independent Study in Art, *with A's in the last two classes*, AND permission of the instructor**

Table of Contents

# Business Education

| Course | Number | Grade | Credit |
|---|---|---|---|
| Digital Literacy | 060112 | 9-12 | 1 |
| Microsoft Office Specialist (MOS) | 070750 | 10-12 | 1 |
| Accounting and Finance Foundations | 060122 | 10-12 | 1 |
| Financial Accounting | 070122 | 11-12 | 1 |
| Multimedia Publishing | 060751 | 10-12 | 1 |
| Advanced Office Administration | 070743 | 11-12 | 1 |
| Principles of Marketing | 080716 | 9-12 | 1 |
| Advanced Marketing | 080717 | 11-12 | 1 |
| Business Education Co-op | 060107 | 11-12 | 1 |
| Business Education Internship | 060108 | 11-12 | 1 |

***Please note that there are dual credit courses available for juniors and seniors for Business elective opportunities***

## Digital Literacy

No. 060112-Grades 9-12-Credit 1

Computer skills are a must for the 21st century workforce. Students taking this foundation class will learn skills that will enhance their academic experience in all classes. Students will spend the first few weeks of class re-visiting the keyboard and enhancing both their speed and accuracy rates. Activities in word processing, spreadsheet, database, and presentation software will be incorporated throughout the course. Near the completion of this course, students will take part in a job simulation that asks them to prove their skills in various document creations as well as everyday business procedures. This class is designed for all students in order to prepare them for college and the world of work.

## Microsoft Office Specialist (MOS)

No.070750-Grade 10-12-Credit 1

Microsoft products are everywhere! This class is specifically designed to provide students with advanced training in *Microsoft Word, Excel, and PowerPoint*. After extensive training, students will be allowed to take the MOS exam in an attempt to become certified by the world's largest computer company, Microsoft. This certification will allow students to be a "step above" their peers with seeking part-time jobs, filling out scholarship applications, applying for colleges, and creating a resume. In addition, this class is one part of the requirements needed to earn the six hours of college credit that is available through the Business Department. MOS Certification is now being required for admission to some college/university programs. Earning all three MOS certifications also help students in their effort to become College and Career Ready. **Prerequisite: Digital Literacy**

## Accounting and Finance Foundations

No. 060122-Grade 10-12-Credit 1

This course is designed to provide an introduction to both areas of accounting and finance. Topics include banking, credit, financial literacy, career exploration, spreadsheet usage, and technical writing. The accounting principles taught in this course are based on a doubly-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 exploration of case studies. This course is a must for students interested in becoming an Accountant/CPA or working in the Banking Industry.

## Financial Accounting

No. 070122-Grades 11-12-Credit 1

The accounting principles taught in this class include an in-depth study of accounting principles, procedures, and techniques used in keeping financial records for sole proprietorships, partnerships, and corporations. There is an emphasis on automated accounting. Topics include a more analytical approach to accounting using problem solving strategies. Students who enjoy working with numbers and who plan to pursue this field in college are strongly urged to take this course. **Prerequisite: Accounting and Finance Foundations**

## Multimedia Publishing

No. 060751-Grade 10-12-Credit 1

Multi-Media Publishing is an ideal course for students who wish to further their computer skills while specializing in producing printer-ready business documents. Using InDesign, PowerPoint, and Publisher software, students will be able to use graphics and text to produce such items as brochures, newsletters, and booklets. This course will be especially valuable to students who are interested in business, publishing, journalism, and graphics design careers. MSU has an exciting major in this area and students will be working closely with the Graphics Communications Management program at MSU during this course.

## Advanced Multimedia Publishing

No. 060761-Grade 11-12 Credits 1

This hands-on course applies advanced web design, publishing, and presentation concepts through the development of sophisticated documents and projects which include, but is not limited to websites, web databases, web movies, video editing and production, and television productions. This course is designed around the learning goals of the students and is project-based. Students will complete advanced projects agreed upon with the instructor utilizing hardware and software available. Formatting, editing, layout, and design concepts are reviewed and reinforced. Distribution ready publication standards are applied to all projects. Students will develop communication skills, problem-solving techniques, cooperative learning, and interpersonal skills. Leadership development will be provided through FBLA and/or DECA. **Prerequisite: Successful completion of Multimedia Publishing and teacher recommendation**

## Advanced Office Administration

No. 070743-Grade 11-12 Credit 1

Calling all Business Leaders! The new class name signifies a route that will lead business-minded students into the 21st century ahead of the pack. This is a capstone course designed, equipped, and furnished to simulate an actual business environment. Course content includes understanding of various hardware, software, and operating systems that can be found in the 21st century business. Students will use electronic communications, email, and the telephone on a daily basis as their primary means of communicating with each other and the teacher. An individual student employment credentials portfolio is developed during this class and students will practice entering the workforce using their portfolio. Advanced Office Administration students will utilize a variety of computer software to perform their word processing, database management, spreadsheet, desktop management, and electronic presentation tasks. Students planning to major in business should certainly take this course to prepare them for collegiate coursework. Students who take this course are given the opportunity to take the state KOSSA exam, as well. This course is also the required course for students wishing to earn the six hours of college credit offered by the Business Department. **Prerequisite: Digital Literacy**

## Principles of Marketing

No. 080716-Grade 9-12 Credit 1

This course provides a 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 student's college and career readiness. Leadership development will be provided through the curriculum as well.

## Advanced Marketing

No. 080717-Grade 11-12 Credits 1

This course is designed to enhance marketing skills developed in the marketing prerequisite courses and to learn advanced marketing skills in such areas as advertising, customer service, supervision, and employee/employer relations for a wide range of marketing careers. This course is based on the business and marketing core that includes communication skills, emotional intelligence, economics, marketing, operations, promotion, marketing-information management and financial analysis. Leadership development will be provided through FBLA and/or DECA. **Prerequisite: Successful completion of Principles of Marketing and/or teacher recommendation**

## Business Education Co-op

No. 060107-Grade 11-12 Credits 1

This course provides 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 according to the Work Based Learning Guide. **Prerequisite: Teacher Recommendation**

## Business Education Internship

No. 060108-Grade 11-12 Credits 1

This course provides 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). **Prerequisite: Teacher Recommendation**

Table of Contents

# Career Awareness & Application

| Course | Number | Grade | Credit |
|---|---|---|---|
| Career Networking | 320104 | 10-12 | 1 |
| Peer Tutoring | 906010 | 10-12 | 1 |
| Co-op | *** | 11-12 | 1 |
| Internship | *** | 11-12 | 1 |

***Refer to the Co-op and Internship courses in each CTE and ATC program area for the specific course code***

## Career Awareness

The Career Awareness Program is a collaborative, hands-on curriculum whose primary emphasis is on providing qualified students experiences in the world of career exploration. Included in the academic component of this program is a study of work-related topics such as creating résumés, understanding the principles of employer-employee relationships, workplace etiquette, the job interview process, and easing the transition from high school to the adult world of work. While it is understood that many high school students have part-time jobs, the purpose of this program is legitimate career exploration and participation in Career Awareness should not be considered by students who simply wish to hold a part-time job to pay their bills.

The Career Awareness Program will be supervised by the program administrator and advised by a Career Exploration Committee. The committee will be composed of two CTE teachers (one from the CCHS CTE Department and one from the ATC), one member from a CCHS core content department, the program administrator, a school guidance counselor and a principal or designee. The committee will request an interview with students, and they have the authority to refuse any experience deemed not beneficial to post-secondary career enhancement.

Students that are enrolled in the Career Awareness Program, for either Career Networking or CO-OP/Internship class, will also be subject to the corresponding Prerequisites & Guidelines.

## Career Awareness Committee

**THE PURPOSE OF THE CAREER AWARENESS COMMITTEE IS TO ESTABLISH CRITERIA FOR ENSURING THE SUCCESS OF CCHS STUDENTS IN THE CAREER AWARENESS PROGRAM.**

## Career Networking Prerequisites & Guidelines

**PREREQUISITES (The following CCHS criteria will be reviewed prior to CCHS Student being permitted in Career Networking):**

- **Initial Criteria** – To be eligible for a Career Networking class, the student must be a concentrator in **the** Pathway they are seeking for Career Networking.
    - **Student must also be a Senior in order to request this course**.
    - **A Junior can request this course if it falls opposite of a dual credit course**, **but they must mentor on campus.**
    - **Seniors must be transition ready (College or Career) or enrolled in a class that will result in transition ready status in order to request Career Networking.**
- **Academic Criteria** – The students prior year grades will be used as criteria for determining ability to take a Career Networking class. Students that have been placed at the AIF **or** with prior year failing grades in any class will not be permitted in the Career Awareness Program. *Students who fail or are removed or dropout of a Career Networking class will not be permitted to enroll in another Career Networking class the following semester.* The student must also have a 2.75 cumulative GPA.

- **Attendance Criteria** – The student's prior year attendance report will be used as criteria for determining ability to take a Career Networking class. Students who have missed more than 10 days of school **or** been tardy to school more than 10 times **or** have a total of 10 absences & tardy instances combined during the previous year will not be permitted to take a Career Networking class.
- **Behavior Criteria** – The students prior years behavior report will be used as criteria for determining ability to take a Career Networking class. Students who have been suspended Out-of-School **or** placed at the AIF for behavior during their tenure in high school will not be permitted to take a Career Networking class.
- **Teacher Recommendation**

When the above criteria have been satisfied and reviewed by the Career Awareness Committee, the student may then request to take a Career Networking class. The student will then interview with the Career Awareness Committee to determine if they will be placed in the class. Prior to meeting with the Committee, the student must have a plan of where they will work, who they will work for, and an understanding of what work/volunteer experience they will gain from this opportunity.

*****THE STUDENT MUST COMPLETE AND RETURN, WITHIN THE SPECIFIED TIMELINES, TO THE GUIDANCE OFFICE ANY PAPERWORK REQUIRED BY THIS COMMITTEE. *****

**GUIDELINES:**

1. **Seniors who request this course must be transition ready (Met one of the SAT/ACT Benchmarks, have already passed a dual credit course, have completed a pathway or is in the final course to complete the pathway)**
2. Students enrolled in this course that falls opposite a dual credit, **must mentor on campus.**
3. No student will leave campus prior to the end of his or her respective lunch period.
4. The student must attend regular mandatory meetings in small groups for a minimum of two days each month to be scheduled by the coordinator. Absence from these meetings will result in receiving a grade of zero for the class meeting. Two absences from these meetings will result in removal from the Career Awareness Program.
5. If the student has an Off-Campus work/volunteer experience, the student must have a valid driver's license, reliable transportation, and parent permission.
6. Students found not reporting to their assigned location will be required to appear before the Career Awareness Committee and may be removed from the program immediately and may receive a failing grade for the course depending on the timing of the incident in the school year.
7. No student shall ride with another other student to a work/volunteer experience without written permission from both school and the parents/guardians of each student.
8. Students enrolled in the Career Awareness Program must have a legitimate work/volunteer experience (for the days they are not in classes). Legitimate work/volunteer experience is defined as any position that could be a career path for the student. Legitimate work/volunteer experiences will be subject to approval by the Career Awareness Committee. (Student must complete the corresponding paperwork.)
9. Students will not be allowed to work/volunteer where frequent travel or change in work site is required, nor will they be allowed to work odd jobs.
10. Work experiences may be dictated by mandated child labor laws.
11. Any student who is removed from a Career Awareness class for any reason will not be enrolled in a Career Awareness class for the remainder of the school year.
12. No student will leave campus prior to the end of his or her respective lunch period.
13. Career Networking students may not work/volunteer for family members.

# CO-OP & Internship Prerequisites & Guidelines

**PREREQUISITES FOR CO-OP & INTERNSHIP (The following CCHS criteria will be reviewed prior to CCHS Student being permitted in the Career Awareness Program):**

- **Initial Criteria –** To be eligible for a CO-OP or Internship class, the student must be taking the class as their fourth (or beyond) class in that Career Pathway.
- **Academic Criteria–** The students' academic standing will be evaluated on a case-by-case basis. However, students that have been placed at the AIF **or** with prior year failing grades in any class will not be permitted in the Career Awareness Program. *Students who fail or are removed or dropout of a CO-OP or Internship class will not be permitted to enroll in another CO-OP or Internship class the following semester.*
- **Behavior Criteria –** The students prior years behavior report will be used as criteria for determining ability to take a Career Awareness class. Students who have been suspended Out-of-School **or** placed at the AIF for behavior during their tenure in high school will be reviewed on a case-by-case basis.
- **Attendance Criteria –** The student's prior year attendance report will be used as criteria for determining ability to take a Career Awareness class. Students who have missed more than 10 days of school **or** been tardy to school more than 10 times **or** have a total of 10 absences & tardy instances combined during the previous year will not be permitted to take a Career Awareness.
- **Teacher Recommendation –** Each student that applies must submit two recommendations from the CCHS Faculty.

When the above criteria have been satisfied and reviewed by the Career Awareness Committee, the student may then request to take a Career Awareness class. The student will then interview with the Career Awareness Committee to determine if they will be placed in the class. Prior to meeting with the Committee, the student must have a plan of where they will work, who they will work for, and an understanding of what work/volunteer experience they will gain from this opportunity.

*****THE STUDENT MUST COMPLETE AND RETURN, WITHIN THE SPECIFIED TIMELINES, TO THE GUIDANCE OFFICE ANY PAPERWORK REQUIRED BY THIS COMMITTEE.*****

**GUIDELINES FOR CO-OP & INTERNSHIP:**

1. No student will leave campus prior to the end of his or her respective lunch period.

2. The student must attend regular mandatory meetings in small groups for a minimum of two days each month to be scheduled by the coordinator. Absence from these meetings will result in receiving a grade of zero for the class meeting. Two absences from these meetings will result in removal from the Career Awareness Program.

3. If the student has an Off-Campus CO-OP/Internship experience, the student must have a valid driver's license, reliable transportation, and parent permission.

4. Students found not reporting to their assigned location will be required to appear before the Career Awareness Committee and may be removed from the program immediately and may receive a failing grade for the course depending on the timing of the incident in the school year.

5. No student shall ride with another other student to a CO-OP/Internship experience without written permission from both school and the parents/guardians of each student.

6. Students enrolled in the Career Awareness Program must have a legitimate CO-OP/Internship experience (for the days they are not in classes). Legitimate CO-OP/Internship experience is defined as any position that could be a career path for the student. Legitimate CO-OP/Internship experiences will be subject to approval by the Career Awareness Committee. (Students must complete the corresponding paperwork.)

7. CO-OP/Internship experiences may be dictated by mandated child labor laws.

8. Any student who is removed from a Career Awareness class for any reason will not be enrolled in a Career Awareness class for the remainder of the school year.

When the above criteria have been satisfied and reviewed by the Career Awareness Committee, the student may then request to take a CO-OP & Internship class. The student will then interview with the Career Awareness Committee to determine if they will be placed in the class. Prior to meeting with the Committee, the student must have a plan of where they will work, who they will work for, and an understanding of what work/volunteer experience they will gain from this opportunity.

*****THE STUDENT MUST COMPLETE AND RETURN, WITHIN THE SPECIFIED TIMELINES, TO THE GUIDANCE OFFICE ANY PAPERWORK REQUIRED BY THIS COMMITTEE.*****

## Career Networking II

No. 320104-Grade 12-Credit 1

Students choosing this option will work on campus one block for the entire semester. **Prerequisite: Career Exploration Committee approval**

## Peer Tutoring

No. 906010-Grades 11-12-Credits 1

This course is designed to train students in effective peer tutoring skills and provide experiences in peer tutoring. **Prerequisite: Career Exploration Committee approval**

## Co-op

See Pathways for Specific Course Number - Grade 12 Credits 1

This course provides 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 according to the Work Based Learning Guide. **Prerequisite: Teacher Recommendation**

## Internship

See Pathways for Specific Course Number - Grade 12 Credits 1

This course provides 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). **Prerequisite: Teacher Recommendation**

Table of Contents

# Computer Science

***These courses are virtual courses taught ONLINE by We LEAD Computer Science educators through KY Virtual Career Academy. ***

| Course | Number | Grade | Credit |
|---|---|---|---|
| Introduction to Programming | 110201 | 9-12 | 1 |
| Computer Literacy | 110110 | 9-12 | 1 |
| Computational Thinking | 110251 | 9-12 | 1 |
| Object Oriented Programming I | 110220 | 9-12 | 1 |
| JAVA Programming I | 110205 | 9-12 | 1 |
| Cybersecurity | 110230 | 9-12 | 1 |
| Cyber Literacy I | 110222 | 9-12 | 1 |
| Cyber Literacy II | 110223 | 9-12 | 1 |
| Computer Literacy | 110110 | 9-12 | 1 |
| Security Fundamentals | 110912 | 9-12 | 1 |

## Introduction to Programming

No. 110201 –Grade 9-12-Credit 1

This course focuses on the general writing and implementation of generic and atomized programs to drive operating systems. Instruction includes software design, languages, program writing, and troubleshooting. Students are introduced to fundamental programming concepts using an industry-specific or emerging programming language. Includes data types, control structures, simple data structures, error-handling, modular programming, information and file processing, and uniqueness of the language used in the course. Students spend at least 20 hours of programming and applying learned concepts through programming. (Programming is defined, by the K-12 CS Framework, as the craft of analyzing problems and designing, writing, testing, and maintaining programs to solve them.) Participation in Kentucky Technology Student Association or SkillsUSA will greatly enhance instruction.

## Computer Literacy

No. 110110 – Grade 9-12 – Credit 1 Dual Credit CIT 105

This course 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, social web, green computing, AR and VR, security, and AI fundamentals. Instruction presents the basic use of application, programming, systems, and utility software. Students spend at least 20 hours of programming and applying learned concepts through programming. (Programming is defined, by the K-12 CS Framework, as the craft of analyzing problems and designing, writing, testing, and maintaining programs to solve them.) Participation in Kentucky Technology Student Association or SkillsUSA will greatly enhance instruction. **Prerequisite: Introduction to Programming.**

## Computational Thinking

No. 110251 Grade 9-12 – Credit 1 Dual Credit CIT 120

Computational Thinking promotes understanding of computer programming and logic by teaching students to think like a computer. It covers skills needed to develop and design language-independent solutions to solve computer-related problems. Instruction covers development and design basics including use of variables, control and data structures, and principles of command-line and object-oriented languages. Students spend at least 20 hours of programming and applying learned concepts through programming. (Programming is defined, by the K-12 CS Framework, as the craft of analyzing problems and designing, writing, testing, and maintaining programs to solve them.) Participation in Kentucky Technology Student Association or SkillsUSA will greatly enhance instruction. **Prerequisite: Computer Literacy**

## Object-Oriented Programming I

No. 110220 - Grade 9-12 – Credit 1 Dual Credit CIT 144

This course introduces students to fundamental programming concepts using an Object-Oriented Programming language(s). Teachers select the programming language that is most appropriate for their students. Topics include data types, control structures, simple data structures, arrays, GUI, modular programming and error-handling. Students spend at least 20 hours programming and applying learned concepts through programming. Programming is defined, by the K-12 CS Framework, as the craft of analyzing problems and designing, writing, testing, and maintaining programs to solve them. **Prerequisite: Computational Thinking**

## JAVA Programming I

No. 110205 - Grade 9-12 – Credit 1 Dual Credit CIT 149

Java Programming I introduces students to fundamental programming concepts using the Java programming language. Topics include data types, control structures, simple data structures, error-handling, object-oriented programming, graphical user interfaces, and modular programming. Students spend at least 20 hours programming and applying learned concepts through programming. Programming is defined, by the K-12 CS Framework, as the craft of analyzing problems and designing, writing, testing, and maintaining programs to solve them. **Prerequisite: Object-Oriented Programming I**

## Cybersecurity

No. 110230 - Grade 9-12 – Credit 1

Cybersecurity Fundamentals introduces the tools and concepts of cybersecurity and encourages students to create solutions that allow people to share computing resources while protecting privacy. This course raises students' knowledge of and commitment to ethical computing behavior. Students will learn the components of cybersecurity and the role each plays in preventing, detecting, and mitigating vulnerabilities and attacks. Students spend at least 20 hours of programming and applying learned concepts through programming. (Programming is defined, by the K-12 CS Framework, as the craft of analyzing problems and designing, writing, testing, and maintaining programs to solve them.) Participation in Kentucky Technology Student Association or SkillsUSA will greatly enhance instruction. ***This is the first course in the Cybersecurity pathway.**

## Cyber Literacy I

No. 110222 - Grade 9-12 – Credit 1

Cyber Literacy I is a hands-on course that builds a strong cyber foundation for high school students. The course introduces students to cyber by blending robotics, programming, electricity, and elements of liberal arts. Students learn about the opportunities, threats, responsibilities, and legal constraints associated with operative in cyberspace. Throughout the course, students learn the basics of electricity, programming, and networking as well as develop critical thinking skills. Cyber Literacy I lays a foundation for further exploration into STEM and cyber-related topics. Students spend at least 20 hours of programming and applying learned concepts through programming. (Programming is defined, by the K-12 CS Framework, as the craft of analyzing problems and designing, writing, testing, and maintaining programs to solve them.) Participation in Kentucky Technology Student Association or SkillsUSA will greatly enhance instruction. **Prerequisite: Cybersecurity**

## Cyber Literacy II

No. 110223 - Grade 9-12 – Credit 1

Cyber Literacy II is a project-driven course that expands a student's understanding of cyberspace through two primary topics: systems engineering and liberal arts. The Cyber Literacy II course builds upon fundamental cyber skills. Many aspects of science, engineering, technology, and mathematics are included throughout the course. Students are challenged to create flowcharts with each build as well as read schematics instead of relying on wiring diagrams. Students spend at least 20 hours of programming and applying learned concepts through programming. (Programming is defined, by the K12 CS Framework, as the craft of analyzing problems and designing, writing, testing, and maintaining programs to solve them.) Participation in Kentucky Technology Student Association or SkillsUSA will greatly enhance instruction. **Prerequisite: Cyber Literacy I**

## Computer Literacy

No. 110110 - Grade 9-12 – Credit 1 Dual Credit CIT 105

This course 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, social web, green computing, AR and VR, security, and AI fundamentals. Instruction presents the basic use of application, programming, systems, and utility software. Students spend at least 20 hours of programming and applying learned concepts through programming. (Programming is defined, by the K-12 CS Framework, as the craft of analyzing problems and designing, writing, testing, and maintaining programs to solve them.) Participation in Kentucky Technology Student Association or SkillsUSA will greatly enhance instruction. **Prerequisite: Cyber Literacy II**

## Security Fundamentals

No. 110912 - Grade 9-12 – Credit 1 Dual Credit CIT 180

Security Fundamentals introduces basic computer and network security concepts and methodologies. Covers principles of security; compliance and operational security; threats and vulnerabilities; network security; application, data, and host security; access control and identity management; and cryptography. Students spend at least 20 hours of programming and applying learned concepts through programming. (Programming is defined, by the K-12 CS Framework, as the craft of analyzing problems and designing, writing, testing, and maintaining programs to solve them.) Participation in Kentucky Technology Student Association or SkillsUSA will greatly enhance instruction. **Prerequisite: Computer Literacy**

# Engineering & Technology Education

| Course | Number | Grade | Credit |
|---|---|---|---|
| Engineering I | 210221 | 9-12 | 1 |
| Engineering II | 210222 | 10-12 | 1 |
| Technical Design I | 210138 | 9-12 | 1 |
| Technical Design II | 210108 | 10-12 | 1 |
| Architectural Design | 210140 | 10-12 | 1 |
| Robotics Engineering | 210238 | 10-12 | 1 |
| Robotics Automation and Design | 210239 | 10-12 | 1 |
| Advanced Design Applications | 210117 | 11-12 | 1 |
| Engineering Capstone | 210110 | 11-12 | 1 |
| Manufacturing Engineering | 210225 | 11-12 | 1 |
| Engineering & Technology Co-op | 210330 | 12 | 1 |
| Engineering & Technology Internship | 210331 | 12 | 1 |

***Please note that there are dual credit courses available for juniors and seniors for Engineering & Technology elective opportunities***

## Engineering I

No. 210221 –Grade 9-12-Credit 1

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 (computer-aided design) and physical and virtual modeling concepts to construct, test, collect and report data. Participation in Kentucky Technology Student Association will greatly enhance instruction.

## Engineering II

No. 210222- Grade 10-12-Credit 1

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, robotics, hydraulics, electricity/electronics, communications, construction systems, alternative energy, computer-aided design, and problem-solving. Participation in Kentucky Technology Student Association will greatly enhance instruction. **Prerequisite: Engineering 1**

### Tech Design I

210138 Grades 9-12 Credit:1

This course will provide students with instruction in the characteristics and evolution of drafting technology, underlying principles of design and fundamental knowledge and skills in the use of mechanical drawing, illustrations, and various forms of mechanical drawings, geometry and applied mathematics that apply to engineering design. Introduction to various forms of computer-aided software to gain basic skills and knowledge. Participation in Kentucky Technology Student Association will greatly enhance instruction.

### Tech Design II

210108 Grades 10-12 Credit:1

This course contributes to the development of each high school student's capability to understand how technology's development, control, and use are based on design constraints and human wants and needs. The structure of the course challenges students to use technological design processes so that they can think, plan, design, and create solutions to engineering and technological problems. Students are actively involved in the organized and integrated application of technological resources, engineering concepts, and scientific procedures. Students address the complexities of technology that stem from designing, developing, using, and assessing technological systems. Participation in Kentucky Technology Student Association will greatly enhance instruction. **Prerequisite Tech Design I**

**Architectural Design**

210140 Grades 10-12 Credit:1

This course is for students who wish to broaden their basic skills in the field of residential architectural drafting and surveying. Covers procedures used in developing a complete set of residential plans, history of surveying, mathematics, measurement and computations, and the proper use of basic drafting and surveying instruments, equipment and software. Students will develop projects in accordance with drafting and building code requirements. Projects will emphasize the importance of communication and organization as they participate in the roles of civil engineers, architects, land developers, surveyors, and/or general contractors in residential planning and construction. Participation in Kentucky Technology Student Association will greatly enhance instruction**. Prerequisite Engineering 1 and/or Engineering 2**

**Advanced Design Applications**

210117 Grades 11-12 Credit:1

This course focuses on how engineers and technicians apply their creativity, resourcefulness, mathematical, technical and scientific knowledge and skills to solve authentic design problems. This course can be offered as a dual credit course offered by Eastern Kentucky University (EKU). More information about this partnership can be found on EKU's Dual Credit webpage. Participation in Kentucky Technology Student Association will greatly enhance instruction. **Prerequisite Engineering 1 and/or Engineering 2**

**Robotics Engineering**

210238 Grades 10-12 Credit:1

This course provides students with the foundation in content and skills associated with robotics and automation, including artificial intelligence, electronics, physics, and principles of engineering. Participation in Kentucky Technology Student Association will greatly enhance instruction. **Prerequisite Engineering 1 and/or Engineering 2**

**Robotics Automation and Design**

210239 Grades 10-12 Credit:1

This course provides students with content and skills essential to the design and operation of robotic systems. Students' 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 Kentucky Technology Student Association will greatly enhance instruction. **Prerequisite Engineering 1 and/or Engineering 2**

**Manufacturing Engineering**

210225 Grades 10-12 Credit:1

This comprehensive course is designed for the study of general concepts and principles of manufacturing and manufacturing systems. This course provides a hands-on learning experience that 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 Kentucky Technology Student Association will greatly enhance instruction. **Prerequisite Engineering 1 and/or Engineering 2**

## Engineering Capstone

210110 Grades 11-12 Credit:1

Engineering scope, content, and professional practices are presented through practical applications in this capstone course. Students in engineering teams apply technology, Kentucky Academic Standards, and skills to solve engineering design problems and create innovative designs. Students research, develop, test and analyze engineering designs using criteria such as design effectiveness, public safety, human factors and ethics. Participation in Kentucky Technology Student Association will greatly enhance instruction.

One option is UK's College of Engineering Transition to Engineering course. This course introduces students to creativity that is inherent in how engineers and computer scientists approach innovation, design, and problem-solving. Students are introduced to general engineering content, tools of the trade, and the ethical implications of creative engineering endeavors. Students will engage in a hands-on project with an emphasis on problems and techniques common across various engineering domains with a focus on coding. **Prerequisite Engineering 1 and/or Engineering 2**

Table of Contents

# Family and Consumer Science

| Course | Number | Grade | Credit |
|---|---|---|---|
| Family & Consumer Science Essentials | 200113 | 9-10 | 1 |
| Foods & Nutrition | 200441 | 10-12 | 1 |
| Middle to Late Lifespan Development | 200226 | 10-12 | 1 |
| Parenting **&** Relationships | 200173 **&** 200171 | 10-12 | 1 |
| Financial Literacy | 080719 | 10-12 | 1 |
| FACS Leaders at Work | 200199 | 11-12 | 1 |

## Family & Consumer Science Essentials

No. 200113-Grade 9-10-Credit 1

This comprehensive course provides an opportunity for acquiring basic life skills and guides students to explore and select specific areas for concentrated study. Emphasis is on family, employability skills, adolescent development, financial management, parenting, establishing healthy relationships, creating a foundation for healthy lifestyles and nutrition. Leadership development will be provided through the Family, Career and Community Leaders of America.

## Foods & Nutrition

No. 200441-Grade 10-12-Credit 1

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 and sanitation, and careers in nutrition and food service. Leadership development will be provided through the Family, Career and Community Leaders of America.

## Middle to Late Lifespan Development

No. 200226-Grade 10-12-Credit 1

This course addresses the practical problems related to understanding the areas and stages of lifespan development, reviewing the effects of heredity and environment on the life stages, meeting the needs of exceptional individuals, and promoting optimum growth and development in middle childhood, adolescence, adulthood and elderly stages. Careers in human development and adult care services are explored. Leadership development will be provided through the Family, Career and Community Leaders of America (FCCLA) student organization.

## Parenting & Relationships

No.200173 & 200171-Grade 10-12-Credit 1

The relationship course assists students to develop self-understanding, understanding of others, interpersonal skills, awareness of others' needs, and physical, mental and emotional wellness. Family life education comprises a portion of this course, including dating and married relationships. Preparations for the achievement of a successful marriage are emphasized. The parenting course is designed to educate students in parenting and caregiving skills that can be applied in a variety of situations. Major topics include family, roles and responsibilities of parenting, preparing for a family, conception, prenatal and birth, infancy, health and safety, and early childhood education careers.

## Financial Literacy

No. 080719 Grades 10-12 Credit:1

The goal of the Financial Literacy elective course is to equip students with the knowledge needed to make informed financial decisions that contribute to life-long financial stability. This course aligns to the Kentucky Academic Standards for Financial Literacy and focuses on student understanding and skills in such areas as money management, budgeting, savings and investing, financial goal attainment, debt, the wise use of credit, insurance and risk management (including personal insurance policies) and taxes. Throughout the course, students explore the necessity of critically reviewing documents prior to signing agreements, practice providing a signature in cursive, and examine real-word challenges that individuals commonly encounter when responsibly managing their personal finances. **Prerequisite: Must be enrolled in or previously completed a course in this pathway.**

## FACS Leaders at Work (Co-op/Internship)

No. 200199-Grade 11-12 Credits 1

This course is designed to prepare Family and Consumer Sciences students to be innovative with effective leaders in families, future careers and communities. Students will integrate high-order thinking, communication, leadership, and technical skills to explore family and consumer sciences careers, conduct service-learning projects, discover modern social issues relevant to the field, and enhance employability skills to lead the 21st century-workforce. Students will be engaged in project-based learning opportunities by developing authentic, real-world and rigorous projects leading to self-discovery, positive social action and career exploration. **Prerequisite: Teacher Recommendation**

# Jobs for USA's Graduates (JAG)

| Course | Number | Grade | Credit |
|---|---|---|---|
| Jobs for USA's Graduates (JAG) | 901100 | 9-12 | 1 |

**Jobs for USA's Graduates (JAG)**

No. 901100 Grade 9-12 Credits: 1

Jobs for America's Graduates (JAG) - JAG is a career-readiness course that helps students build essential skills for success in school, work, and life. Through hands-on projects, leadership activities, career exploration, and community service, students develop communication, teamwork, professionalism, and problem-solving skills while preparing for future education and employment opportunities. You can read more about JAG here.

# LAKER 101

| Course | Number | Grade | Credit |
|---|---|---|---|
| Laker 101 | 904010L | 9 | 1 |

**Laker 101**

No. 904010L Grade 9 Credits: 1

Laker 101 is designed to add supports for freshmen students to help ensure they have a successful transition to the high school. Students will learn organization and self-management skills. They will learn about the various resources, classes, and personnel available to them at school. Students will also have time to complete and receive assistance for course work in their other classes.

Table of Contents

# Music

| Course | Number | Grade | Credit |
|---|---|---|---|
| Concert/Marching Band | 500914 | 9-12 | 1 |
| Jazz Band | 500920 | 9-12 | 1 |
| Concert Choir | 500925-A | 9-12 | 1 |
| Beginning Guitar | 500923 | 9-12 | 1 |
| Intermediate Guitar | 500999 | 10-12 | 1 |
| Advanced Guitar | 500923E | 10-12 | 1 |
| Music Appreciation | 500912 | 10-12 | 1 |
| AP Music Theory | 500929 | 11-12 | 1 |

## Concert/Marching Band

No. 500914-Grade 9-12-Credit 1

This course offers a wide range of musical experiences for wind and percussion students. Performances are primarily in the concert and marching band settings. Music from most styles and time periods is studied. Many opportunities are available for individual achievement such as Solo and Ensemble Festival, Quad State, All-District, and All State. Performances and Band Camp are required as an integral part of the course. **Prerequisite: Audition or previous years' experience in band**

## Jazz Band

No. 500920-Grade 9-12-Credit 1

This course is designed as a supplemental ensemble to the Concert Band. This class will serve as an introduction to the history of jazz music. Through ensemble rehearsal, individual practice, and a variety of performance opportunities, the student will gain an understanding and appreciation for this uniquely-American art form. Emphasis will be placed on not just performance technique, but also rudimentary improvisational skills, musicianship, and a sense of personal accountability. Each student is expected to show technical and musical growth throughout this course.

## Concert Choir

No. 500925-A-Grades 9-12-Credit 1

Concert Choir is for any student grades 9-12, interested in developing their voice, musical ear, and general musicianship. The class provides training in music reading, vocal production, choral blend, and appreciation of musical styles, quality, and history. Repertoire is drawn from a wide variety of styles from classical to Broadway. Performances are primarily in concert settings.

## Jazz Choir

No. 500925-J-Grade 9-12-Credit 1

Jazz Choir is for any student grades 9-12, interested in developing their voice, musical ear, general musicianship and in learning more about jazz and blues music, and related styles of singing. The class provides training in music reading, vocal production, choral blend, and appreciation of musical styles, quality, and history. Repertoire is drawn mostly from the jazz genre, but will occasionally include other styles, especially in combined performances with the Concert Choir. Performances are primarily in concert settings.

## Beginning Guitar

No. 500923 Grades 9-12-Credit 1

Beginning Guitar is an introduction to music making on the six-string guitar. Students will learn to read traditional notation and guitar tablature, learn chords and accompany themselves and others singing, learn to play solo and as part of an ensemble, learn and apply music theory, improvise and compose their own music, listen to and perform music in many styles and from many historical periods. **Beginning Guitar is a class for beginners only.**

## Intermediate Guitar

No. 500999-Grades 10-12 -Credit 1

Intermediate Guitar is designed as an extension of the Beginning Guitar class with an emphasis on note reading and ensemble playing. Its purpose is to provide further opportunities of study for those students who excelled in Beginning Guitar class or who have extensive playing experience and want to develop and/or extend their music reading and ensemble skills. Music from a variety of styles and time periods will be studied, all within the framework of music written or adapted for guitar ensembles. **Prerequisite: Audition and interview with instructor.**

## Advanced Guitar

No. 500923E-Grades 10-12 -Credit 1

Advanced Guitar is designed as an extension of the Beginning Guitar class and the Intermediate Guitar class. Its purpose is to provide additional opportunities of study for those students who excelled in Beginning Guitar class, Intermediate Guitar class, or who have extensive playing experience and want to sharpen their music reading and ensemble skills. Music from a variety of styles and time periods will be studied, all within the framework of music written or adapted for guitar ensembles. **Prerequisite: Beginning Guitar and teacher approval.**

## Music Appreciation

No. 500912-Grades 9-12 -Credit 1

In this class, students will explore the characteristics of music from the beginning of standard notation to the diverse styles of the 21st century. We will begin with the Medieval era, then Renaissance, Baroque, Classical, and Romantic periods, and into the innovations of the 20th century and 21st centuries. Students will study key musical elements such as melody, harmony, rhythm, texture, and form, developing active listening skills and a deeper understanding of how music works and it's intention through what we hear and the historical context connected to it. Through guided listening, historical context, discussions, and creative projects, students will discover how music from hundreds or even thousands of years ago continues to influence and connect to the sounds of our world today. Students will also get to help influence what modern artists we study and how it can connect to music from our past.

## AP Music Theory

No. 500929 - Grade Level: 11-12

Music Theory will cover the bulk of content of a college freshman music theory course (Theory I and II), including introduction to the principles of harmony in music beginning with the construction of major and minor scales, the circle of fifths, interval training, triad construction, basic chord recognition, musical notation, rhythmic counting, seventh chords, and basic four-part writing. This course includes both written and aural music theory, including sight-singing. Also included in the course content will be a unit on form in composition. **Prerequisite Instructor approval required for non-band/choir/guitar students or advanced 10th gr student.**

Table of Contents

# World/Foreign Language

| Course | Number | Grade | Credit |
|---|---|---|---|
| Spanish I | 161108 | 9-12 | 1 |
| Spanish II | 161109 | 9-12 | 1 |
| Spanish III | 160110 | 10-12 | 1 |
| Spanish IV | 161111 | 10-12 | 1 |
| Spanish V **&** AP Spanish | 161112 **&** 161130 | 11-12 | 2 |
| Español para Adolescentes (Spanish for Adolescents) | 161126 | 11-12 | 1 |
| SPA 101 | 800033S | 11-12 | 1 |

***Please note that there are dual credit courses available for juniors and seniors for Spanish elective opportunities***

## Spanish I

No. 161108-Grade 9-12-Credit 1

Spanish I helps students develop skills in listening, speaking, reading and writing in the Spanish language. In addition, students are introduced to the Hispanic cultures.

## Spanish II

No. 161109-Grade 9-12-Credit 1

Spanish II helps each student improve his/her skills in listening, speaking, reading and writing the Spanish language. In order to do this, the material covered in Spanish I is reviewed and further developed. Finally, Hispanic art, music, literature, and culture are explored and discussed. **Prerequisite: Spanish I.**

## Spanish III

No. 161110-Grade 10-12-Credit 1

The main goal of Spanish III is to increase the student's language proficiency. To achieve those goals, much that was learned in Spanish I and II are reviewed. Once the student has fully mastered these skills, new material is presented that expands the student's knowledge of how the Spanish language functions. Students are also encouraged to use Spanish naturally and automatically. Moreover, Hispanic civilization, culture and appropriate literary selections are explored. **Prerequisite: Spanish I & II**

## Spanish IV

No. 161111-Grade 10-12-Credit 1

The main goals of Spanish IV are to increase the student's language proficiency and to build the student's fluency. To achieve these goals, much that has been learned in Spanish I, II and III must be reviewed. Once the student has fully mastered these skills, new material is presented that expands the student's knowledge of how the Spanish language functions. Students are also encouraged to use Spanish naturally and automatically. Moreover, the Hispanic civilization, culture and appropriate literary selections are explored. **Prerequisites: Spanish I, II and III OR the equivalent**

## Spanish V & AP Spanish

No. 161112 **&** No. 161130-Grade 11-12 Credits 2

This course is designed for fifth year Spanish students who are planning to take the AP language exam. To receive AP credit, both courses must be taken as a year-long course. ***Students must take both semesters.***

**Prerequisite: Spanish I, II, III, & IV OR the equivalent**

## Español para Adolescentes (Spanish for Adolescents)

No. 161126 – Grade 11-12

This course will help students learn how to teach younger students the Spanish language. Techniques learned in class from a Spanish teacher are incorporated/implemented as the enrolled students teach younger students. **Prerequisite: Intermediate level of proficiency or better.**

## SPA 101 - Elementary Spanish I

No. 161126 – Grade 11-12

Basic Spanish in which students learn to describe themselves to someone from another culture; to express preferences, abilities, needs and obligations; to ask for information; to describe people, places and things in their world; and to report their typical activities to a Spanish speaker. We will use Descubre I, the same textbook Spanish I and II uses to develop the four language skills (reading, writing, listening, and speaking) plus cultural competency. **Prerequisite(s): Spanish I and II or equivalent, based on teacher recommendation after interview and passing of placement test.**

Table of Contents

# *Dual Credit*

Refer to the following sites for the most up to date information:
http://education.ky.gov/districts/tech/sis/Pages/KSIS-KHEAA.aspx
http://education.ky.gov/educational/AL/dc/Pages/default.aspx

***Dual Credit Classes Offered at CCHS either in person or online.***

## Murray State University

***Below is a list of common Dual Credit Courses offered through MSU. Please see the Racer Academy Website for a full list of course options.***

***Dual Credit Courses at Murray State***

***https://www.murraystate.edu/admissions/raceracademy/courses.aspx***

| Course | Number | Grade | Credit |
|---|---|---|---|
| AGR 100 | 020502M | 10-12 | CCHS 1 & MSU 3 hrs. |
| AGR 130 | 010101M | 12 | CCHS 1 & MSU 3 hrs. |
| AGR 133 | 030707M | 12 | CCHS 1 & MSU 2 hrs. |
| AGR 140 | 010651M | 10-12 | CCHS 1 & MSU 3 hrs. |
| AGR 160 | 010641 | 10-12 | CCHS 1 & MSU 3 hrs. |
| AGR 182 | 020511M | 10-12 | CCHS 1 & MSU 3 hrs. |
| AGR 185 | 030702M | 12 | CCHS 1 & MSU 3 hrs. |
| AGR 199 | 030711M | 10-12 | CCHS 1 & MSU 3 hrs. |
| CHE 105 (on CCHS campus) | 800041M | 11-12 | CCHS 1 & MSU 4 hrs. |
| BIO 103 (on CCHS campus) | 800041M103 | 11-12 | CCHS 1 & MSU 3 hrs. |
| COM 161 (on CCHS campus) | 231011M | 11-12 | CCHS 1 & MSU 3 hrs. |
| CSC 199 | 060197-M | 11-12 | CCHS 1 & MSU 3 hrs. |
| ECO 190 | 060170 | 11-12 | CCHS 1 & MSU 3 hrs. |
| ENG 105 (on CCHS campus) | 800011-MSU | 12 | CCHS 1 & MSU 4 hrs. |
| HIS 222(on CCHS campus) | 800051M222 | 11-12 | CCHS 1 & MSU 3 hrs. |
| CIV 201(on CCHS campus) | 800051M201 | 11-12 | CCHS 1 & MSU 3 hrs. |
| MAT 140 | 800021-140 | 11-12 | CCHS 1 & MSU 4 hrs. |
| MAT 150 | 800021-150 | 11-12 | CCHS 1 & MSU 5 hrs. |
| STA 135 | 800021-MSU135 | 11-12 | CCHS 1 & MSU 4 hrs. |

## WEST KENTUCKY COMMUNITY & TECHNICAL SCHOOL

| | | | |
|---|---|---|---|
| COM 181 | 800015WK | 11-12 | CCHS 1 &WKCTC 3 hrs. |
| ENG 101 | 800011-WKCTC | 12 | CCHS 1 & WKCTC 3 hrs. |
| ENG 102 | 800011-WKCTC102 | 12 | CCHS 1 & WKCTC 3 hrs. |
| HIS 101 | 800051 101 | 11-12 | CCHS 1 & WKCTC 3 hrs. |
| MAT 150 | 800021WK150 | 11-12 | CCHS 1 & WKCTC 3 hrs. |
| MAT 155 | 800021WK155 | 11-12 | CCHS 1 & WKCTC 3 hrs. |
| POL 101 | 800051POL | 11-12 | CCHS 1 & WKCTC 3 hrs. |
| PSY 110 | 800051WK | 11-12 | CCHS 1 & WKCTC 3 hrs. |
| SPA 101 | 800033 | 11-12 | CCHS 1 & WKCTC 3 hrs. |

# Dual Credit Committee

**THE PURPOSE OF THE DUAL CREDIT COMMITTEE IS TO ESTABLISH CRITERIA FOR ENSURING THE SUCCESS OF CCHS STUDENTS IN THE DUAL CREDIT PROGRAM.**

**PREREQUISITES:**

**The following CCHS criteria will be reviewed prior to a CCHS Student being permitted to apply at any Post-Secondary Institution:**

- **Academic Criteria**– The student's prior year grades will be used as criteria for determining ability to take Dual Credit classes. Students that have been placed at the AIF **or** with prior year failing grades in any class will not be permitted to take Dual Credit classes at a Post-Secondary Institution.
- **Behavior Criteria** – The student's prior year behavior report will be used as criteria for determining ability to take Dual Credit classes. Students who have been suspended Out-of-School **or** placed at the AIF for behavior during the previous school year in high school will not be permitted to take Dual Credit classes through a Post-Secondary Institution.
- **Attendance Criteria** – The student's prior year attendance report will be used as criteria for determining ability to take Dual Credit classes. Students who have missed more than 10 days of school **or** been tardy to school more than 10 times **or** have a total of 10 absences & tardy instances combined during the previous year will not be permitted to take Dual Credit courses at any Post-Secondary Institution.
- **Teacher Recommendation** – Each student who applies must submit two forms of recommendation from the CCHS Faculty.

When the above criteria have been satisfied and reviewed by the Dual Credit Committee, the student may then apply for admission to a Post-Secondary Institution of their choosing. CCHS currently works with three Post-Secondary Institutions: Murray State University, West Kentucky Community & Technical School, and Eastern Kentucky University. Here are the websites for applying to those institutions:

- **Murray State University** - www.murraystate.edu/RacerAcademy
- **West Kentucky Community & Technical School** - https://students.kctcs.edu/psc/stdsaprd/EMPLOYEE/SA/c/COMMUNITY_ACCESS.K_OLA_LANDING_FL.GBL?&Campus=WKCTC

*****THE STUDENT MUST COMPLETE AND RETURN, WITHIN THE SPECIFIED TIMELINES, TO THE GUIDANCE OFFICE ANY PAPERWORK REQUIRED BY THIS COMMITTEE OR THE RECEIVING POST-SECONDARY INSTITUTION.*****

**GUIDELINES:**

1. Students taking Dual Credit classes must report to Lab 320 or other designated place on days when their class is not in session.
2. Any student who is removed from a Dual Credit class for any reason will be enrolled in CCHS classes for the remainder of the school year.
3. The student's discipline record during the current school year will also be considered while enrolled in Dual Credit courses. An Out-of-School suspension from school or a violation of the CCSD BOE Policy 09.423 may also result in removal from the Dual Credit Courses.

# Murray State University

## AGR 100

No. 020502M–Grade 10-12- Credit: CCHS 1; MSU 3 hrs.

**Animal Technology** 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. **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 will be provided through FFA. Each student will be expected to have a supervised agricultural experience program.

## AGR 130

No. 010101M – Grade 12 Credit: CCHS 1; MSU 3 hrs.

**Agricultural Economics** is a study of fundamental principles of economics as applied to agriculture. Attention is given to resource use, economic growth, production fundamentals, economic institutions and agriculture in relation to national and world economics. Prerequisites: MAT 140 or ACT math standard score of at least 21.

## AGR 133

No. 030707M – Grade 12 Credit: CCHS 1; MSU 2 hrs.

**Field Applications for Agriculture** will teach students methods of solving many application problems that will be encountered in the field of agriculture using applied mathematical and logical skills. The emphasis will be to use practical mathematical skills already acquired from secondary education to address agricultural situations involving computations necessary for upper level courses in agriculture. Some knowledge of agricultural situations may be required. It is not the purpose of this course to replace any advanced math requirements that are required in the various agricultural curriculums. Prerequisites: Declared area or major in Agriculture or permission of instructor.

## AGR 140

No. 010651M- Grade 10-12-Credit: CCHS 1; MSU 3 hrs.

**Plant Science** will provide instruction in a study of general plant science principles including basic plant anatomy, physiology, and interactions with the surrounding environment. Leadership development will be provided through FFA. Each student will be expected to have a supervised agricultural experience program.

## AGR 160

No. 010641M– Grade 10-12- Credit: CCHS 1; MSU 3 hrs.

**Horticulture Science** will provide instruction in production practices for container and field-grown nursery stock; identification, function, growing requirements, hardiness, problems and methods of different landscape plant materials; propagating and growing evergreens/deciduous plants; and the operation of garden centers and nurseries. Principles of home and commercial fruit production may also be included. Content may be enhanced by utilizing appropriate computer applications. Leadership development will be provided through FFA. Each student will be expected to have a supervised agricultural experience program.

## AGR 182

No. 020511M– Grade 10-12- Credit: CCHS 1; MSU 3 hrs.

**Introduction to Veterinary Science** 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 upper classmen agricultural education students, at the high school level, 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.

## AGR 185

No. 030702M – Grade 12 Credit: CCHS 1; MSU 3 hrs.

**Agricultural Leadership and Life Knowledge** is developed for students who are interested in pursuing a career in the agricultural industry that elaborates on the roles, responsibilities and challenges in the field of agricultural leadership.

## AGR 199

No.030711M – Grade 10-12-Credit: CCHS 1; MSU 3 hrs.

**Agriculture Communications** introduces the issues of food production, nutrition, food chemistry and the development of food products in a global society. The government regulations regarding foods and the exploration of career opportunities will also be covered. Content may be enhanced with appropriate computer applications. Leadership development will be provided through FFA. Each student will be expected to have a supervised agricultural experience program. **Animal Science,** which is taught in the CCHS Agriculture Department, is a pre-requisite for this course. This is a basic course designed to increase the understanding, awareness, and critical analysis of contemporary agricultural issues and their effect upon the social, political, economic and cultural aspects of society. Topics will include environmental, bio-technology, animal, crop, career, economy and trade, agricultural policy, food quality/safety and international agriculture issues. This class is a University Studies Elective which meets Social Science requirement at MSU. **Pre-Requisite: CCHS Animal Science class.**

## CHE 105

No. 800041M105-MSU Dual Credit Course-Grade 11-12-Credit: CCHS 1; MSU 4 hrs.

This is a beginning course in general chemistry designed for students who plan to take additional chemistry courses. Three lectures and two hours of laboratory per week. Not applicable to major or minor. **Prerequisites: Math ACT score of at least 20 or MAT 110 (or equivalent) and Teacher Recommendation.**

## BIO 103

No. 800041M103 MSU Dual Credit Course-Grade 11-12-Credit: CCHS 1; MSU 3 hrs.

**Saving Planet Earth**: A study of the problems faced by humans on the Earth, including human population growth, over-exploitation of natural resources, climate change, habitat destruction and species extinction. The philosophical, behavioral, ethical, and scientific basis of these problems and their solutions will be discussed, with an emphasis on the global nature of the issues. The course will also explore the potential for humans to live in a sustainable fashion on the planet, and emphasize the social responsibility and civic engagement required to do so. (Same as EES 103.)

## COM 161

No.231011M –Grade 11-12-Credit: CCHS 1; MSU 3 hrs.

**Introduction to Public Speaking** helps students with organization and presentation of ideas through participation in frequent speech activities. Students present speeches to inform, solve problems and persuade. Communication needs of the individual students are considered and guidance is given by the instructor.

## CSC 199

No.060197M-Grade 11-12-Credit: CCHS 1; MSU 3 hrs.

**Introduction to Information Technology** is designed for students pursuing any program of study. A student taking this course will gain competency with file management, word processing, spreadsheet, database management, and presentation graphics software. In addition, the student will become familiar with general computer technology such as computer hardware, computer operations, networks, the Internet and the World Wide Web. **Prerequisite: MAT 105 or math ACT score of at least 20.**

## ECO 190

No. 060170M-Grade 11-12-Credit: CCHS 1; MSU 3 hrs.

**Consumer Economics** prepares the student to manage his or her own personal financial affairs in a competent manner as well as providing a foundation for later study and work in the financial planning field. Designed to meet the needs of both business and non-business majors. Cannot receive credit for both ECO 190 and FIN 230.

## ENG 105

No. 800011MSU- Dual Credit Course-Grade 12-Credit: CCHS 1; MSU 4 hrs.

**Critical Reading, Writing, and Inquiry** is a dual credit course for high school and college credit that is a seminar-style course emphasizing academic inquiry through critical reading and writing. The course goal is to facilitate academic inquiry and give students the tools to develop their writing as their university studies grow more complex. The course also familiarizes students with ways of thinking and interpreting texts so they can actively participate in disciplinary and interdisciplinary exploration through writing. Because students must demonstrate that they understand and can effectively apply the approaches to academic discourse and inquiry, the course is challenging, yet it proves valuable to students who make the effort to succeed in the work. Effective writing and communication are essential in any occupation and are primary factors in career advancement. **Prerequisites: English ACT of at least 18 and Reading ACT score of at least 20.**

## HIS 222

No. 800051MSU222-Grade 11-Credit 1; MSU 3 Hrs.

American Experience Since 1865 is an introductory survey of the history of the U.S. since 1865. Students will examine three themes: the forces that transformed America from a predominantly rural, agricultural society to a predominantly urban, industrial one; the rising political consciousness of various American groups and the expanding regulatory role of the federal government; and the emergence of America as a world power. **REQUIREMENT** for U.S. History. **Prerequisite: Social Studies teacher recommendation and must meet Murray State University dual credit requirements.**

## CIV 201

No. 800051MSUC 11-12 Credit 1; MSU 3 hrs.

World Civilizations I is an interdisciplinary survey of worldwide historical events, interactions, and trends from the origins of humanity to 1500. This lecture/discussion course follows a chronological outline and focuses on diverging perspectives and the complexities of continuity and change. Topics examined may stress the development of power structures; class, gender, and racial hierarchies; religions; technologies; and global exchange and conflict in the ancient and medieval worlds. **This class may be used to fulfill the social studies elective REQUIREMENT for the Comprehensive Diploma**. **Prerequisite: Social Studies teacher recommendation and must meet Murray State University dual credit requirements.**

## MAT 140

No. 800021M-MSU Dual Credit Course-Grade 11-12-Credit: CCHS 1; MSU 4 hrs.

**College Algebra** develops and extends the student's basic algebra concepts and problem-solving skills in the context of functions, models, and applications. Topics include exponents and radicals, graphing, setting up and solving equations in linear, quadratic, and other forms, systems of equations, and operations on functions. Properties and applications of linear, quadratic, polynomial, rational, exponential, and logarithmic functions are studied. This course could serve a mathematics elective for high school graduation, but not as one of the three required math courses for graduation: Algebra I, Geometry or Algebra II. **Prerequisites: Admission to Murray State University (requires an ACT Composite score of 18 and an ACT Math score of 21).**

## MAT 150

No. 800021MSU-MSU Dual Credit Course-Grade 11-12-Credit: CCHS 1; MSU 5 hrs.

**Algebra and Trigonometry** is an intensive study of college algebra and trigonometry. A combination of MAT 140 and MAT 145, it is a faster-paced course for students with some familiarity with the subjects. MAT 150 may be used as a refresher course to help prepare students for MAT 250-Calculus. **Prerequisites: Admission to Murray State University (requires an ACT Composite score of 18 and an ACT Math score of 23).**

## STA 135

No. 800021-M – MSU Dual Credit Course-Grade 10-12-Credit: CCHS 1; MSU 4 hrs.

**Introduction to Probability and Statistics** is a course designed to address such concepts as theoretical and experimental probability, binomial distributions, normal distributions, displaying and describing distributions of data, collecting data, measures of central tendency and dispersion, and methods of inferential statistics. This course could serve a mathematics elective for high school graduation, but not as one of the three required math courses for graduation: Algebra I, Geometry, or Algebra II. **Prerequisites: Admission to Murray State University (requires an ACT Composite score of 18 and an ACT Math score of 20).**

# West Kentucky Community & Technical College

**General Education College Level Benchmark Scores**

| ACT Scores | TABE | KYOTE |
|---|---|---|
| English – 18 | English – 12.8 | English – 6 |
| Reading – 20 | Reading – 12.6 | Reading – 20 |
| Math – 22 | | Algebra – 14 |

2020 KCTCS Assessment and Placement Waiver will allow students to enroll in many first-year general education courses with a 3.0 High School GPA and Counselor approval. Students enrolling in technical courses need to have earned a 2.0 High School GPA and Counselor approval.

## COM 181

No. 800015WK-Grade 11-12-Credit: CCHS 1; WKCTC 3 hrs.

**Basic Public Speaking** applies the basic principles and techniques in research, organization, and delivery of speeches for informative and persuasive speaking purposes. Provides practical platform experience in developing speaking abilities to enable the student to communicate orally in clear, coherent language appropriate to the purpose, occasion, and audience. Pre-requisite: Current KCTCS placement scores for college level reading and writing. **Pre-requisite: English ACT score of at least 18 and Reading ACT score of at least 20 and a 3.0 GPA.**

## ENG 101

No. 800011WK - Grade 12-Credit: CCHS 1: WKCTC 3 hrs.

**ENG 101: Writing I** is a dual credit course for high school and college credit that is a seminar-style course which focuses on academic writing. The course will provide instruction in drafting and revising essays that express ideas in Standard English, including reading critically, thinking logically, responding to texts, addressing specific audiences, researching and documenting sources. Includes review of grammar, mechanics, and usage. **Prerequisites: English ACT score of at least 18 and ACT Reading score of at least 20 and a 3.0 GPA.**

## ENG 102

No. 800011WK2-Grade 12-Credit: CCHS 1; WKCTC 3 hrs.

**ENG 102: Writing II** Emphasizes argumentative writing. Provides further instruction in drafting and systematically revising essays that express ideas in Standard English. Includes continued instruction and practice in reading critically, thinking logically, responding to texts, addressing specific audiences, and researching and documenting credible academic sources. NOTE: Credit is not available by special examination. **Pre-requisite: ENG 101**

## HIS 101

No. 800051WK101 - Grade 11-12-Credit: CCHS 1; WKCTC 3 hrs.

**World Civilization I** presents a multicultural survey of world cultures and global issues from ancient to medieval times. **Prerequisites: ACT Reading score of at least 20 and a 3.0 GPA.**

## MAT 150

No. 800021WK150-Grade 11-12-Credit: CCHS 1; WKCTC 3 hrs.

**College Algebra** includes selected topics in algebra and analytic geometry. Develops manipulative skills and concepts required for further study in mathematics. Includes linear, quadratic, polynomial, rational, exponential, logarithmic and piecewise functions; systems of equations; and an introduction to analytic geometry. (Students may not receive credit for both MAT 150 and any other College Algebra or Pre-calculus course.) **Pre-requisite: Math ACT score of 22 or above and a 3.2 GPA.**

## MAT 155

No. 800021WK155-Grade 11-12-Credit: CCHS 1; WKCTC 3 hrs.

**Trigonometry:** Includes the trigonometric functions, identities, multiple analytic formulas, laws of sines and cosines, graphs of trigonometric functions in rectangular and polar coordinates, and solving trigonometric equations. Emphasizes applications in each topic. (Students may not receive credit for both MAT155 and any other trigonometry or pre-calculus course.) Lecture: 3 credits (45 contact hours). **Pre-requisite: Math ACT score of 22 or above and a 3.2 GPA.**

## NAA 100

No. 170631WK-Grade 11-12-Credit: CCHS 1; WKCTC 3 hrs.

**Nursing Assistant Skills I** provides knowledge and skills for nurse aides to assume the role and responsibility required in a long term care setting. The focus is communication, infection control, safety, resident/patient rights, and basic nursing skills. Note: Faculty and clinical sites must comply with applicable Federal and Kentucky laws and regulations. Course is completed in conjunction with **Medical Nurse Aide at ATC. Pre-requisite: 3.0 GPA.**

## POL 101

No. 800051WKPOL-Grade 11-12-Credit: CCHS 1; WKCTC 3 hrs.

**American Government** examines national government and the political process in the United States, with emphasis on the Constitution, the President, Congress, and the judicial system. Focuses on the nature of American democracy, political challenges, and opportunities. **Prerequisites: ACT Reading score of at least 20 and a 3.0 GPA.**

## PSY 110

No. 800051WK-Grades 11-12-Credit: CCHS 1; WKCTC 3 hrs.

**General Psychology** is an introduces the history, methods and content of modern psychology. Covers the history and systems of psychology, psychological research, physiological psychology, psychological processes, developmental psychology, personality, abnormal behavior and social psychology. Pre-requisite or Co-requisite: Current placement scores for college level reading established by KCTCS or completion of, or concurrent enrollment in, transitional reading course(s). **Prerequisites: ACT Reading score of at least 20 and a 3.0 GPA.**

## SPA 101

No. 800033WK-Grades 11-12-Credit: CCHS 1; WKCTC 3 hrs.

**Elementary Spanish I** (spoken approach) introduces basic modes of communication in Spanish. Stresses speaking, listening, reading and writing as target skills. Emphasizes everyday language which the students will learn by applying essential grammatical structures to vocabulary. Provides instructional assignments and self-correctional exercises that will be practiced in the classroom. Presents an overview of the culture of various Spanish-speaking countries. **Prerequisites: ACT Reading score of at least 20 and a 3.0 GPA.**

**There are other classes available through WKCTC which go along with classes at the ATC. Please ask your teacher if a dual credit class is available if interested.

# Murray-Calloway Area Technology Center

## Pathways Offered at the Area Technology Center

### AUTOMOTIVE MAINTENANCE AND LIGHT REPAIR TECHNICIAN: AUTOMOTIVE EDUCATION CAREER PATHWAY
**Contact - Mitchell McNutt**

- Automotive Maintenance & Light Repair-A (AUT 150 & 151: 470507) (1)
- Automotive Maintenance & Light Repair-B (AUT 152 & 153: 470509) (1)
- Automotive Maintenance & Light Repair-C (AUT 154 & 155: 470511) (1)
- Automotive Maintenance & Light Repair-D (AUT 156 & 157: 470513) (1)
- *Automotive Special Problems (1) **REQUIRES** completion of A, B, C, D
- *Automotive Co-op (CMM 199 or 299: 470501) (1)

*REQUIRES Instructor Approval

### CARPENTRY: CONSTRUCTION CARPENTRY TECHNOLOGY CAREER PATHWAY
**Contact - Brian Provine**

- Introduction to Construction (CAR 126/127: 460201) (1)
- Floor & Wall Framing (CAR 190/191: 460212) (1)
- Ceiling & Roof Framing (CAR 196/197: 460213) (1)
- Cabinet Construction & Installation (CAR 240/241: 460209) (1)
- Exterior & Interior Finishing (CAR 200/201: 460219) (1)
- Carpentry Co-Op or Internship(CAR 199/299: 460242) (1) (**REQUIRES Instructor Approval)**

### CULINARY ARTS: FAMILY & CONSUMER SCIENCES CAREER PATHWAY
**Contact - Kathleen Holman**

- Foods & Nutrition (200441) (1)
- Culinary I (200411) (1)
- Culinary II (200412) (2)

**AND 1 of the following:**

- Family & Consumer Science Essentials (200409) (1)
- Advanced Foods & Nutrition (200442) (2)
- Culinary Arts Co-Op (200409) or Internship (200478) (1) (**REQUIRES Instructor Approval)**

### ELECTRICITY PATHWAY
**Contact – Matthew Todd**

- Circuits I (460316) (1)
- Circuits II (460319) (1)
- Electrical Construction I (460312) (1)
- Electrical Construction II (460313) (1)

### MACHINE TOOL: COMPUTERIZED MANUFACTURING & MACHINING CAREER PATHWAY
**Contact – Kevin Colston**

- Fundamentals of Machine Tool A (CMM 110: 470913) (1)
- Fundamentals of Machine Tool B (CMM112: 470914) (1)
- Introduction to Conversational Programming (CMM 2301: 470926) (1)
- CAD/CAM/CNC (CMM 132: 470925) (1)
- *Machine Tool Co-Op or Internship (CMM 199/299: 470929/480932) (1)

***REQUIRES Instructor Approval**

### PRE-NURSING: HEALTH SCIENCE CAREER PATHWAY & ALLIED HEALTH PATHWAY
**Contact - Nicole Vaughan**

HEALTH SCIENCE CAREER PATHWAY

- Principles of Health Science (AHS 105: 170111) (1)
- Emergency Procedures & Medical Terminology (170141 & 170131) (1)
- Body Structures and Function (170167) (1)
- Medicaid Nurse Aid (MNA 100: 170631) (2)
- *Internship option (170550) (1)

ALLIED HEALTH PATHWAY

- Principles of Health Science (AHS 105: 170111) (1)
- Emergency Procedures & Medical Terminology (170141 & 170131) (1)
- Allied Core Skills
- Body Structures and Functions
- Internship (NOCTI Certification Exam

***REQUIRES Instructor Approval**

### WELDING: WELDING TECHNOLOGY CAREER PATHWAY
**Contact - Tony Adair**

- Cutting Processes (WLD 110/111: 480501) (1)
- Basic Welding A(WLD151: 480524)(0.5) / Basic Blueprint Reading (BRX120:499920) (0.5)
- Shielded Metal Arc Welding (WLD 120/121: 480521) (1)
- Gas Metal Arc Welding (WLD 140/141: 480522) (1)
- Shielded Metal Open Groove (480535) (1)
- Gas Metal Arc Groove Lab (WLD 143: 480533) (1)
- *Welding Cooperative (480541) or Internship (480544) (1)

***REQUIRES Instructor Approval**

# AUTOMOTIVE TECHNOLOGY

(This program is ASE certified – Automotive Service Excellence)

## Automotive Maintenance and Light Repair and Lab Sections A-B-C-D

These courses introduce the student to the principles, theories, and concepts of Automotive Technology, and include instruction in the maintenance and light 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, including proper care and cleaning of customers' vehicles. The instruction will also include identification and use of appropriate tools and testing/measurement equipment required to accomplish certain tasks. The student will also receive the necessary training to locate and use current reference and training materials from accepted industry publications and resources and demonstrate the ability to write work orders. Courses A, B, C and D can be completed in any sequence. **Prerequisite: None**

## Automotive Maintenance and Light Repair – Section A

No. 470507 - Grades 9-12 - Credit 1

Tasks will cover Engine maintenance, Engine Performance, Manual Transmissions, Axels and other Drive Train maintenance and repair procedures. Automotive Shop Safety, General Automotive Tasks, and Workplace Employability Skills will be incorporated in instruction. Students must take ALL four courses to complete the Automotive Maintenance and Light Repair Course.

## Automotive Maintenance and Light Repair – Section B

No. 470509 - Grades 9-12 - Credit 1

Tasks will cover Steering Systems, Suspension Systems and Automatic Transmissions maintenance and light repair procedures. Automotive Shop Safety, General Automotive Tasks, and Workplace Employability Skills will be incorporated in instruction. Students must take ALL four courses to complete the Automotive Maintenance and Light Repair Course.

## Automotive Maintenance and Light Repair – Section C

No. 470511 - Grades 9-12 - Credit 1

Tasks will cover Brake Systems, Heating, Ventilation and Air Conditioning Systems and repair procedures. Automotive Shop Safety, General Automotive Tasks, and Workplace Employability Skills will be incorporated in instruction. Students must take ALL four courses to complete the Automotive Maintenance and Light Repair Course.

## Automotive Maintenance and Light Repair – Section D

No. 470513 - Grades 9-12 - Credit 1

Tasks will cover Electrical and Electronic Systems and repair procedures. Automotive Shop Safety, General Automotive Tasks, and Workplace Employability Skills will be incorporated in instruction. Students must take ALL four courses to complete the Automotive Maintenance and Light Repair Course.

## Special Problems I, II, III, IV (Auto Tech)

No. 470577, 470578, 470579 or 470584 – Grades 11-12 – Credit 1 each

Courses designed to enhance a student's understanding of shop situations and problems that arise when dealing with live work. It expands on the task lists that have already been taught to the student in previous Auto Courses. The instructor will teach students how to deal with real world problems that arise when repairing automobiles subjected to various types of customer road use. Students will diagnose and repair selected task/problems as determined by the instructor. **Prerequisite: Completion of the Automotive Maintenance and Light Repair Courses/Sections A, B, C and D.**

## Cooperative Education I (Auto Tech)

No. 470501 – Grades 11-12 – Credit 1

Co-op provides supervised on-the-job work experience related to the student's educational objectives. Students who participate in the Cooperative Education program receive compensation for their work. **Prerequisites: Consent of Instructor and Completion of the Automotive Maintenance and Light Repair Courses/Sections A, B, C and D.**

# CARPENTRY

(The carpentry courses are certified by the National Center for Construction Education and Research –NCCER)

## Introduction to Construction Carpentry (CAR 126 & 127)

No. 460201–Grade 9-12 – Credit: 1

This course is the introduction to the construction carpentry industry. The class will emphasize safe and proper methods of operating hand tools, portable power tools, and stationary power tools in the construction industry

## Floor & Wall Framing (CAR 190 & 191)

No. 460212–Grade 9-12 – Credit: 1

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.

## Ceiling & Roof Framing (CAR 196 & 197)

No. 460213–Grade 9-12 – Credit: 1

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.

## Exterior & Interior Finishing (CAR 200 & 201)

No. 460219–Grade 9-12 – Credit: 1

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

## Cabinet Construction & Installation (CAR 240 & 241)

No. 460209–Grade 10-12 – Credit: 1

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.

## Carpentry Co-Op or Internship (CAR 199 or 299)

No. 460242 or 460245-Grade 11-12-Credit-2

Students enrolled in the Co-Op will work for a construction company or a construction related business. Students must have had an exemplary school attendance record and must have dependable transportation. Students will be expected to preform job entry level tasks in a courteous and professional manner. Students will be graded by their employer every two weeks. They will be on the job for four (4) days a week and in class one (1) day a week.

**Prerequisite: Must be approved by the instructor and have completed two (2) previous carpentry classes. The student must have at least a B average in these courses, must meet high school and area technology center GPA and attendance criteria. Student must have PRIOR permission of carpentry instructor and ATC principal BEFORE signing up for class.**

# CULINARY ARTS

## Foods & Nutrition

No. 200441-Grade 9-12-Credit 1

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. **Prerequisite: None**

## Advanced Foods

No. 200442-Grade 9-12-Credit 1

This course is designed to assist students in principles related to food preparation. Specific content addressed will include planning, serving, food presentation, special diets, nutrition for the lifespan, serving, and food planning for entertainment services. An emphasis on careers related to food service and nutrition will be addressed. Lab instruction emphasizes the application process. **Prerequisite: Foods & Nutrition**

## Culinary I

No. 200411-Grade 10-12-Credit 1

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 profession. Students will study and test through Servsafe®, a nationally recognized industry certification. **Prerequisite: Foods and Nutrition**

## Culinary II

No. 200412-Grade 10-12- Credit 2

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 level skills are taught. Time is provided for work based learning opportunities. This is a capstone course- all students that wish to co-op must be enrolled in this class. **Prerequisite: Foods & Nutrition <u>and</u> Culinary I**

## Culinary Arts-Co-Op or Internship

No. 200409 or 200478-Grade 11-12-Credits 1-2

Students who have completed no less than Culinary 1, two of the additional courses, are currently enrolled in Culinary II, and who are in the 12th grade can choose to do a practicum or a co-op (see below for information about each course). Students will work in the local food industry to gain workplace skills and to train on specialized equipment not offered in the culinary arts food lab. Students will receive valuable on-the-job experience. PLEASE NOTE – STUDENTS MUST HAVE A JOB IN THE INDUSTRY, MUST FURNISH THEIR OWN TRANSPORTATION, MUST MEET GPA AND SCHOOL ATTENDANCE GUIDELINES TO BE ELIGIBLE. STUDENT MUST ALSO GAIN APPROVAL FROM CULINARY ARTS INSTRUCTOR, MURRAY/CALLOWAY ACT PRINCIPAL, AS WELL AS CO-OP/PRACTICUM EMPLOYERS BEFORE WORK-BASED LEARNING CAN BEGIN.

**<u>Both Co-op and Practicum experience would be best if student could be committed to 2 consecutive blocks.</u>**

# ELECTRICITY

## Circuits I

No. 460316-Grade 9-12-Credit 1

This course provides an introduction to basic theory of DC and AC circuits, including circuit analysis techniques, introductory magnetism, and transformer principles. Students will learn about both DC and AC electrical circuits, basic electrical safety and how to properly use electrical measuring instruments and tools. **Prerequisite: None**

## Circuits II

No. 4460319-Grade 9-12-Credit 1

This course covers complex alternating current and direct current circuits. Emphasis is on impedance, reactance, power, and electrical energy, electrical measurement instruments, and circuit analysis. Students will expand upon the knowledge of safety, blueprint/schematics and OHMS law that they learned in Circuits I and will should be able to demonstrate an understanding of AC power, electrical energy and power factor correction. **Prerequisite: Circuits I**

## Electrical Construction I

No. 460312-Grade 9-12-Credit 1

This course involves the study of materials and procedures used in construction wiring. Students will gain knowledge of workplace safety, National Electric Code. They will use multiple wiring methods and materials. Students will learn to draw wiring diagrams to specifications, estimate cost of jobs, learn to install all components of residential electrical wiring. National Electrical Code will be covered in depth. **Prerequisite: None**

## Electrical Construction II

No. 460313-Grade 9-12-Credit 1

This course expands the knowledge and skills needed to work in commercial and industrial construction wiring. Students will expand upon knowledge learned in Electrical Construction I. **Prerequisite: Electrical Construction I**

# HEALTH SCIENCES

## Principles of Health Science (HEA 102)

No. 170111 -Grades 9-12-Credit 1

This course is an orientation to the Health Care Industry. It is designed to develop and enhance an understanding of the roles and responsibilities of each career major area. Upon successful completion of this course, the student will be able to focus on a career major path and make informed decisions regarding choices for continuing education and/or employment. This course addresses the Kentucky Learner Goals and Academic Expectations, Core Content for Assessment, and includes core components from the National Health Care Skill Standards. (FORMERLY HEALTH SCIENCES INTRO) **Prerequisite: None**.

## Emergency Procedures (CPR 100) & Medical Terminology (AHS 120)

No. 170141 **&** No. 170131-Grades 9-12-Credit 1

**CPR for Healthcare Professionals (CPR 100)**

Emergency Procedures is designed to teach cardiopulmonary resuscitation (Adult/Infant/Child) using current emergency techniques relative to cardiac and/or respiratory arrest, as put forth by the American Red Cross. Students who have excellent attendance and have passed all the requirements of the standardized course qualify for certification of cardiopulmonary resuscitation, safety, and first aid. **Students who have excellent attendance and have successfully passed the course requirements may be eligible for dual credit through WKCTCS.**

**Medical Terminology (AHS 120)**

An overview of the basic techniques of medical word building is provided. Once these techniques have been developed, they can be readily applied to acquire an extensive medical vocabulary. Emphasis is on basic anatomical, physiological, pathology, diagnostic procedures, and pharmacological terms.

## Medicaid Nurse Aide (MNA 100)

No. 170631-Grades 11-12-Credit 2

Specific knowledge and skills for students and/or nurse aides to assume the role and responsibility required in long-term care is communicated to the student through lectures, lab, and clinical practice. The focus of the course is communication, infection control, safety, resident's rights, and basic nursing skills. **Prerequisite: None**

***Students who have excellent attendance and who successfully complete the MNA 100 and the HEA 198 mandated course requirements will be eligible to take the Medicaid Nurse Aide written and performance exam.**

## Body Structures and Function

No. 170167-Grades 10-12-Credit 1

Body Structures and Functions (formerly Basic Anatomy and Physiology) is designed to provide knowledge of the structure and function of the human body with an emphasis on normalcy. The interactions of all body systems in maintaining homeostasis will promote an understanding of the basic human needs necessary for health maintenance Academic knowledge from life science core content as it relates to the human body will be included. Laboratory activities should be a part of the course when appropriate.

## Allied Health Core Skills

No. 170501-Grades 10-12-Credit 1

Allied Health Core Skills is designed to provide knowledge, concepts and psychomotor skills necessary for gainful employment as an entry-level health care worker. Assisting students in selecting a career major, classroom instruction and educational objectives are combined with learning experiences, observations, and a work-based learning opportunity such as internship, shadowing, or clinical rotation. This course is designed for students not enrolled in the Medicaid Nurse Aide program or the Patient Care Technician program. **Pre-requisite: Principles of Health/Science and Emergency Procedures/Medical Terminology with a passing grade.**

## **Health Science Practicum I** (HEA 197)

Arranged with Instructor-Grades 11-12-Credit 1-2

The practicum provides supervised on-the-job work experience related to the student's education objectives. Students participating in the practicum do not receive compensation. The following practicum areas can be pursued provided there is a clinical area available for student observation:

| | |
|---|---|
| HEA198-11 EKG | HEA198-6 Personal & Home Care Aide |
| HEA198-9 Physical Therapy | HEA198-4 Dispensing Optician |
| HEA198-8 Psychiatric aide | HEA198-3 Dietetic Technician |
| HEA198-7 Pharmacy | HEA198-2 Dental Assistant |
| HEA198-5 Medical Assistant | HEA198-1 Child Care Worker |

HEA198-10 Veterinary Assistant & Laboratory Animal Caretaker

**Prerequisite: Permission of Instructor**

## **Health Science Cooperative Education I** (HEA 199)

Arranged with Instructor-Grades 11-12-Credit 1-2

Cooperative Education provides supervised on-the-job work experience related to the students' education objectives. Students participating in the Cooperative Education program receive compensation for their work.

**Prerequisite: Permission of Instructor**

## **Health Science Cooperative Education II** (HEA 299)

Arranged with Instructor-Grades 11-12-Credit 1-2

Cooperative Education provides supervised on-the-job work experience related to the education objectives. Students participating in the Cooperative Education program receive compensation for their work.

**Prerequisite: Permission of Instructor**

# MACHINE TOOL TECHNOLOGY

**(This program is certified by the National Institute for Metalworking Skills, Inc.)**

## Fundamentals of Machine Tools A (CMM 110)

No. 470913-Grades 9-12-Credit 1

This course provides the basic principles needed for a solid foundation in machine tool technology. Areas and machines covered include shop safety, bench work, drill press, power saw, measurement, mills, and lathes. **Prerequisites: None**

## Fundamentals of Machine Tools B (CMM 112)

No. 470914-Grades 9-12-Credit 1

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, bench work, and precision measurement are also emphasized. **Prerequisites: Fundamentals of Machine Tool-A**

## Introduction to Conversational Programming (CMM 2301)

No.470926 -Grades 9-12-Credit 1

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. **Prerequisites: Fundamentals of Machine Tool-A AND Fundamentals of Machine Tool-B**

## CAD/CAM/CNC (CMM 132)

No. 470925-Grades 9-12-Credit 1

This course introduces the student to CAD/CAM/CNC systems which includes CAM software. The student will utilize process planning, manual programming and CAD/CAM for CNC equipment. This student will load a CNC program and set tool and work offsets, and machine part. **Prerequisites: Fundamentals of Machine Tool-A AND Fundamentals of Machine Tool-B**

## Machine Tool Cooperative Education or Internship (CMM 199 or 299)

No. 470929 **OR** 470932-Grades 11-12-Credit 1

Cooperative Education provides supervised on-the-job work experience related to the student's educational objectives. Students participating in the Cooperative Education program receive compensation for their work. **Prerequisite: Students must have a COOP job before enrolling and the permission of the instructor**

# WELDING TECHNOLOGY

**(This program is certified by the American Welding Society)**

## Cutting Processes

No. 480501-Grades 9-12-Credit 1

This course is an Introduction to common cutting processes used in industry. Theory, setup, operation, and related safety are applied.

## Basic Welding & Basic Blueprint Reading

No. 480524 & No. 499920-Grades 9-12-Credit 1

In Basic Welding, students are introduced to welding, cutting processes, and related equipment. Basic setup, operation, and related safety are applied. Basic Blueprint Reading presents basic applied math, lines, multi-view drawings, symbols, various schematics and diagrams, dimensioning techniques, sectional views, auxiliary views, threads and fasteners, and sketching typical to all shop drawings. Safety will be emphasized as an integral part of the course.

## Shielded Metal Arc Welding

No. 480521-Grades 9-12-Credit 1

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.

## Gas Metal Arc Welding

No. 480522-Grades 9-12-Credit 1

Teaches 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 Groove Lab

No. 480533-Grades 9-12-Credit 1

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.

## Shielded Metal Open Groove

No. 480535-Grades 9-12-Credit 1

Offers the student the opportunity to advance skills in the practical aspects of vee-butt plate welding using SMAW.

## Welding Co-Op or Internship

No. 480541 or No. 480544-Grade 11-12-Credit 1

Cooperative Education provides supervised on-the-job work experience related to the students' educational objectives. Students participating in the Cooperative Education program receive compensation for their work. **Prerequisite: Permission of instructor.**

Table of Contents