

Modern Manufacturing

Manufacturing I:

Safety provides students with knowledge of industrial safety, leadership, and communication. Topics included personal protective equipment, fire and electrical safety, work area safety, hazardous material and material handling safety, and tool and machine safety. Manufacturing I, II, III, and IV are not sequential -- they may be taken in any order.

Manufacturing II:

Quality provides students with knowledge of quality practices and measurement. Topics include blueprint reading, basic measurement, precision measurement, quality systems, and statistical process control concepts.

Manufacturing III:

Production is designed to provide students with knowledge of manufacturing processes, production, and equipment. Topics include mechanical principles and linkages, material quality control, machining processes and machine tooling, equipment procedures, production planning and workflow, and production control.

Manufacturing IV:

Maintenance is designed to show students the importance of maintenance awareness in the manufacturing setting and provide the knowledge they need to carry out basic maintenance procedures. The importance of cleaning, inspections, and preventive maintenance is stressed. Areas of focus include basic electric circuits, power, pneumatic, and hydraulic power systems; lubrication concepts, bearings and couplings, belt and chain drives, and machine automation and control concepts.

CTE Lab in Transportation, Distribution, & Logistics:

This course allows students to enhance the essential and intermediate skills learned through program courses within the career cluster and prepare for industry credentialing opportunities.

FCHS COURSES

- Manufacturing I
- Manufacturing II
- Manufacturing III
- Manufacturing IV
- CTE Lab in Transportation, Distribution, & Logistics

BEVILL STATE DE COURSES

- MSCC SAFETY COURSE (ADM 291)
- MSCC MANUFACT PROCESSES & PRODUC COURSE (ADM 292)
- MSCC MANUFATURING PROCESS & PROD (ADM294)
- CTE Lab in Transportation, Distribution, & Logistics



FAYETTE COUNTY HIGH SCHOOL

Architecture & Construction

CTE Lab in Architecture & Construction:

This extended laboratory experience to address the advancement and specialization of careers within Architecture and Construction through individualized or small group instruction.

Arch and Construction Foundations

Architecture and Construction Foundations is the foundational course for the Architecture and Construction career cluster. It is the first step in any of the three pathways (Construction, Design and Preconstruction, or Maintenance and Operations). Topics include construction mathematics; hand and power tools; construction drawings, specifications, and layout; communication; and material handling.

NCCER Electrical Technologies:

This is designed to provide students with fundamental knowledge and skills emphasizing use of hand tools, power tools, and electrical theory for use in the construction industry and required for NCCER Electrical Level I Credentialing.

HVAC Fundamentals

This course introduces the basic skills and knowledge required in the heating, ventilation, air conditioning, and refrigeration industry, including mathematical skills and the use of specialized tools. Topics include heat, comfort, and psychometrics; equipment; trade math; and electricity.

HVAC Installation and Operation

This course introduces students to procedures for installing heating, ventilation, air conditioning, and refrigeration (HVACR) equipment and performing basic preventive maintenance for HVACR systems. Emphasis is placed on interpreting information gathered about the system and using that information to determine whether the system is performing optimally.

HVAC Refrigeration

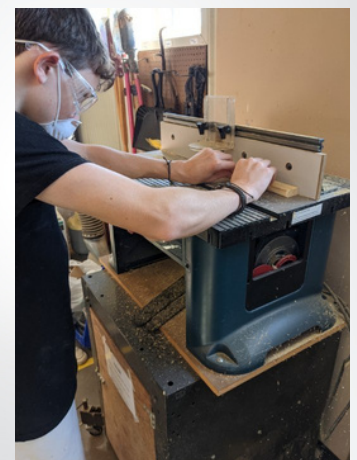
HVAC Refrigeration Systems introduces students to electrical components and controls for refrigeration systems. Emphasis is placed on advanced problem-solving techniques for electrical components and circuitry. Topics include alternating current, compressors, refrigerating piping design, refrigerants and oils, and basic maintenance.

FCHS COURSES

- CTE Lab in Architecture & Construction
- Arch and Construction Foundations
- NCCER Electrical Technologies
- HVAC I
- HVAC II
- HVAC III

ORGANIZATIONS & CREDENTIALS

- SkillsUSA Organization
- EPA Card - Credential



Health Sciences

Foundations of Health Science:

A one-credit foundational course that introduces students to integrated academics, employability and career development skills, legal and ethical issues, communications, safety, and life skills. This course is a prerequisite to all courses in the Health Science cluster.

Human Body Structures & Functions:

A one-credit course designed to help students learn care content that emphasizes the structure and functions of cells, tissues, organs, organization of the human body systems, and medical terminology. Scientific processes, problem-based learning and critical thinking are integral parts of the course.

Patient Care Technician:

Patient Care Technician is a one credit course that provides students the opportunity to become effective and efficient multi-skilled healthcare providers. Students will develop a working knowledge of advanced patient care skills, vital signs, 12-lead EKGs, oxygen therapy, basic phlebotomy via simulation, and specimen collection and processing. Essential workforce skills and safety will be emphasized, as well as, professional ethics and legal responsibilities. Students will ascertain employability skills and soft skills required by business and industry. Upon successful completion of required theory, lab, and simulation, students may be eligible to sit for Patient Care Technician Certification.

Health Science Internship:

A one-credit course focusing on basic knowledge and skills necessary for beginning health care workers. Health Science Internship reinforces and applies knowledge learned in classroom and laboratory settings.

FCHS COURSES

- Foundations of Health Science
- Human Body Structures & Functions
- Patient Care Technician
- Health Science Internship

ORGANIZATIONS & CREDENTIALS

- HOSA
- Patient Care Technician





Business Administration & Management

Business Essentials

This course provides an overview of business skills required for today's business world. The course includes types of business ownership, laws and regulations, principles of business management, and analysis of business practices in light of ethical and social responsibilities. Emphasis is placed on skills needed for success in the workplace, managing resources to achieve company goals, and the impact of financial decisions on a business.

Digital Media Design

This course provides a creative, hands-on environment in which students collaborate to produce a variety of digital media projects. Students use various hardware, peripherals, software, and web-based tools to learn skills involving graphic design, digital photography, web design, and digital video production. Additionally, the standards are designed for students to engage in critical thinking skills and practice appropriate behavior in the use of technology. Emphasis is placed on exploring and demonstrating business-related skills such as teamwork, interpersonal skills, and ethics while completing their projects.

Digital Publication Designs

Digital Publications Design gives students marketable experience in both print and digital publishing. Emphasis is placed on page layout and design, computerized text, graphic art, digital photography, and the use of software to create a variety of publications.

FCHS COURSES

- Business Essentials
- Digital Media Design
- Digital Media Publications
- AP Computer Science

ORGANIZATIONS & CREDENTIALS

- FBLA
- AP Qualifying Score

AP Computer Science

College-level advanced course following the AP curriculum for computer science; focuses on the innovative and multidisciplinary aspects of computing as well as the computational thinking practices that help students see how computing is relevant to many areas of their everyday lives; introduces students to the creative aspects of programming, abstractions, algorithms, large data sets, the Internet, cybersecurity concerns, and computing impacts.