



## PERRYVILLE AREA CAREER & TECHNOLOGY CENTER

### 2023-2024 COURSE DESCRIPTIONS

#### CAREER & TECHNOLOGY CENTER COURSES

#### CAREER CENTER APPLICATION IS REQUIRED

**\*\*Articulation agreements for credit are also in place with Three Rivers College, Mineral Area College, University of Northwestern Ohio\*\*\***

##### TRADE & INDUSTRIAL

###### **VT 4500 – AUTO COLLISION REPAIR I**

###### **VT 4510 – AUTO COLLISION REPAIR II**

Auto Collision Repair is a two-year program designed for students interested in learning about auto collision repair, and or pursuing a career related pathway. Students will learn about vehicle structure, body alignment, component identification, steel welding, plastic welding, adhesives, mechanical related repairs, base-coat clear-coat paint and refinish, sheet metal repair, body repair fillers, all while performing project based learning in the lab/shop. Safety on the job, and environmental awareness within the collision industry is addressed. Hands-on training is the desired method, as theory emphasizes application of principles including, ASE, damage estimating, I-CAR, and multiple aspects of collision repair training. Students will meet entry-level job standards enabling them to pursue a career, or further their education at a technical college.



Skills USA membership is required. ***This program participates in I-CAR certification.***

GRADE LEVEL: 11, 12

CREDIT: 6 (3 per year)

DURATION: 4 semesters (2 full years)

PREREQUISITE: None

###### **VT 4520 – AUTO SERVICE TECHNOLOGY I**

###### **VT 4530 – AUTO SERVICE TECHNOLOGY II**

Auto Service Technology is a two-year program designed to prepare the student for entry-level into the automotive service field and/or additional post-secondary training. A combination of classroom and lab/shop (hands-on) experience is included for the student to build upon. Areas stressed are shop safety and operation; career opportunities; automotive computer systems; basic auto electrical system; batteries, starters, and chargers; lighting and accessories; ignition system; fuel emissions; lubrication; cooling; steering and suspension; tire and wheel alignment; disc, drum and anti-skid brakes; and transmission



Service. Students have the opportunity to participate in the Ford Motor Company ACE program. They also have the opportunity to earn the ASE Student Certification and the Snap-On Student Certification. Skills USA membership is required.

GRADE LEVEL: 11, 12

CREDIT: 6 (3 per year)

DURATION: 4 semesters (2 full years)

PREREQUISITE: None

###### **VT 4550 – CONSTRUCTION TECHNOLOGY I**

###### **VT 4560 – CONSTRUCTION TECHNOLOGY II**

Construction Technology is a two-year program that provides a real time job situation for students interested in acquiring construction skills. The students will be exposed to most phases of construction and actively participate in the construction of a house. As part of a three-to-four man crew, valuable leadership and teamwork skills will be acquired. Skills USA membership is required.

GRADE LEVEL: 11, 12

CREDIT: 6 (3 per year)

DURATION: 4 semesters (2 full years)

PREREQUISITE: None



###### **VT 4570 - INFORMATION TECHNOLOGY & ELECTRICITY I**

###### **VT 4580 - INFORMATION TECHNOLOGY & ELECTRICITY II**

Information Technology & Electricity (ITE) is a two-year program that provides students with a solid foundation of the skills needed to succeed in the twenty-first century. The course uses a highly recognized world-wide curriculum. The Information Technology (IT) course provides an overview of challenges related to digital transformation of our society. The course examines the evolution of the Internet and how people, data, and things are transforming every industry. Learn prototyping techniques using sensors, electronics, Arduino and Raspberry Pi microcontrollers. Other embedded courses include Computer Maintenance, Cybersecurity, Mobile devices, Networking, and Linux, IOS, Windows. Develop high-demand Information Technology skills and creative problem-solving, critical thinking, collaboration, [www.ayehu.com](http://www.ayehu.com) and communication in hands-on lab and networked experiences.



The Electricity course provides a basic understanding of the science behind electricity. It will also provide a solid foundation for troubleshooting, electricity fundamentals, Wiring methods and materials, AC/DC circuitry, Magnetic and electric fields, Electrical codes and safety. Skills USA membership is required.

GRADE LEVEL: 11, 12

CREDIT: 6 (3 per year)

DURATION: 4 semesters (2 full years)

PREREQUISITE: None

**VT 4800 – INDUSTRIAL TECHNOLOGY I**  
**VT 4810 – INDUSTRIAL TECHNOLOGY II**

Industrial & Engineering Technology is a two-year program that will provide a foundation for students interested in Engineering, Design & Fabrication. Students will learn to design using 3D CAD software including Solid works and BobCAD-CAM, along with using 3D printers and programming robots. Students will learn about equipment & machines and how the technical and mechanical parts work together to perform an operation or task along with PLC programming. The foundation of the course uses the engineering design process for problem-solving and decision making. Students will have the opportunity to design and build projects using state of the art machining and fabricating equipment, including a milling machine, metal lathe, brake, sheer, slip roller, tube bender, MIG & TIG welders, plasma cutter, calipers, micrometer and various other equipment and tools. Students will be engaged and Challenged as they prepare to be innovators in the 21st century. Skills USA membership is required  
GRADE: 11, 12  
CREDIT: 6 (3 per year)  
DURATION: 4 semesters (2 full years)  
PREREQUISITE: None



**VT 4640 – WELDING TECHNOLOGY I**  
**VT 4650 – WELDING TECHNOLOGY II**

Welding is a two-year program designed to prepare students to enter advanced training or enter the workforce in the welding field. Instruction will include safety, oxyfuel set up, oxyfuel welding, and cutting in all positions, Shielded Metal Arc Welding (SMAW), Gas Metal Arc Welding (GMAW), Gas Tungsten Arc Welding (GTAW), Plasma Arc Cutting (PAC), and setup, and operation of modern welding equipment. Students will bring in projects and build projects in class. Skills USA membership is required.  
GRADE LEVEL: 11, 12  
CREDIT: 6 (3 per year)  
DURATION: 4 semesters (2 full years)  
PREREQUISITE: None



**ARTS & COMMUNICATIONS**

**VT 4590 – GRAPHIC DESIGN I**  
**VT 4600 – GRAPHIC DESIGN II**

Graphic Communication/Printing is a two-year program designed to prepare students for entry level employment or advanced training in the design and printing industry. Instruction includes classroom and hands-on experience in safety, job orders, customer layouts, use of Adobe Creative Suite programs on Apple/Macintosh computers. Step by step projects of design and typography, electronic imaging, digital duplicating, finishing operations, paper and packaging. Hands-on screen press operations (printing on T-shirts). Instruction in vinyl cutting for signs, banners, etc. Embroidery machine instruction, digitizing and technique. Hands-on lab experiences are a major portion of this program. Skills USA membership is required.  
GRADE LEVEL: 11, 12  
CREDIT: 6 (3 per year)  
DURATION: 4 semesters (2 full years)  
PREREQUISITE: None



Updated 1/4/23

**VT 4741 – INTRODUCTION TO DIGITAL MEDIA 1**

Short Subject Films 1 (Fiction/Animation). This course involves the study of short subject films in live action and animated fiction. Students will learn to actively view and discuss a film using appropriate filmic terms. Short projects will be produced by the students and instructor throughout the semester.

GRADE LEVEL: 9, 10, & 11 (Max 12 students)

CREDIT: ½ unit

DURATION: 1 semester

PREREQUISITE: none

**VT 4746 – INTRODUCTION TO DIGITAL MEDIA 2**

Short Subject Films 2 (SciFi/Documentary). This course involves the study of short subject films in science fiction and documentaries. Students will learn to actively view and discuss a film using appropriate filmic terms. Short projects will be produced by the students and instructor throughout the semester.

GRADE LEVEL: 9, 10, & 11 (Max 12 students)

CREDIT: ½ unit

DURATION: 1 semester

PREREQUISITE: none

**VT 4740 – DIGITAL MEDIA I**

**VT 4745 – DIGITAL MEDIA II**

Digital Media is a two-year program that prepares students for entry-level employment or further training at a community or four-year college. Instruction includes such basics as understanding and using the video camera, story boarding, script writing, editing, lighting and set design. Advanced skills will be demonstrated in directing and producing programs. Students have the opportunity to learn how to produce newscasts, computer multimedia, public service announcements, video news magazines, and Hollywood style movie productions. Skills USA membership is required.

GRADE LEVEL: 11, 12

CREDIT: 6 (3 per year)

DURATION: 4 semesters (2 full years)

PREREQUISITE: None



**HEALTH/HUMAN SERVICES**

**VT 4610 – HEALTH OCCUPATIONS**

Health Occupations is a one-year course designed to prepare students for entry-level employment in the health care field. Instruction includes the opportunity to study the health care delivery system, communication and observation skills, safety, concepts of microbiology, anatomy and physiology, life stages, related health disorders, and the care of specific groups of people such as children and the elderly. Procedures related to basic nursing care will also be taught and students will be expected to demonstrate those procedures. A clinical rotation will be a major part of the second semester and students will work toward becoming a state Certified Nurse Assistant (C.N.A.) by spending clinical hours in the nursing home and local hospital. The students have the opportunity to receive dual credit for medical terminology. They may receive up to 6 college credits through Mineral Area College HLT 2350 and HLT 2360 provided they meet MAC requirements. Skills USA membership is required.

GRADE LEVEL: 11, 12

CREDIT: 3

DURATION: 2 semesters (1 full year)

PREREQUISITE: None



**VT 4750 – EARLY CHILDHOOD PROFESSIONALS I**  
**VT 4755 – EARLY CHILDHOOD PROFESSIONALS II**

Early Childhood Professionals is a two-year course designed for students who desire to work in careers involving young children (birth to 8 years of age). The focus of this course is designed for students pursuing a career in early childhood education. The course includes early child development (typical and non-typical), health, safety, and nutrition of young children, childcare regulations, and skills necessary to work in an early childhood setting. Students will participate in and be responsible for planning activities that stimulate a child's cognitive, language, physical, behavioral and social/emotional development. Students will also learn about positive child guidance and restorative practices that are necessary in the early childhood classroom. Students will observe and practice the skills they have learned in local preschools and primary school classrooms. Those students interested in earning A+ tutoring hours may do so. Ste. Genevieve students may earn 20 A+ hours per clinical semester only. Perryville, Saxony, St. Vincent and Meadow Heights may earn 50 A+ hours. College credit is available that may be applied toward a Child Development Associate Certificate (CDA) at Mineral Area College. Skills USA membership is required.



GRADE LEVEL: 11, 12

CREDIT: 6 (3 per year)

DURATION: 4 semesters (2 full years)

PREREQUISITE: Year 2 requires instructor approval.

**NATURAL RESOURCES/AGRICULTURE**

**AG – INTRODUCTION**

**VT 4443 – CASE - Intro to AGRICULTURE, FOOD AND NATURAL RESOURCES (AFNR)**

Student experiences involve the study of communication, the science of agriculture, plants, animals, natural resources, and agricultural mechanics. While surveying the opportunities available in agriculture and natural resources, students learn to solve problems, conduct research, analyze data, work in teams, and take responsibility for their work, actions, and learning. For example, students work in groups to determine the efficiency and environmental impacts of fuel sources in a practical learning exercise.

GRADE LEVEL: 09, 10, 11, 12

CREDIT: 1 unit

DURATION: 2 semesters (full year)

PREREQUISITE: None

CLASS OFFERED: Every Year



**AG – SHOP SPECIFIC**

**VT 4360 – AGRICULTURE MACHINERY**

Students will develop basic skills in the use and understanding of project planning, power tools, woodworking and metalworking, arc welding, oxy-acetylene cutting and welding, and small engine operation and maintenance. The students will carry out a Supervised Agriculture Experience (SAE) program. Leadership development is required through a membership in the FFA Chapter.

GRADE: 10, 11

CREDIT: 1 unit

DURATION: 2 semesters (full year)

PREREQUISITE: (1) VT 4443 – Intro to Agriculture, Food and Natural Resources; and (2) Ag teacher recommendation

CLASS OFFERED: Every Year



Updated 1/4/23

**VT 4425 – AGRICULTURAL CONSTRUCTION**

Students will become proficient in arc and mig welding along with oxy-acetylene and wood working. Each student will build a project using woodworking or metalworking skills. They will develop a Supervised Agriculture Experience (SAE) program. Leadership development is required through a membership in the FFA Chapter.

GRADE LEVEL: 11, 12

CREDIT: 1 unit

DURATION: 2 semesters (full year)

PREREQUISITE: (1) VT 4443 – Intro to Agriculture, Food and Natural Resources; and (2) VT 4360 – Agricultural Mechanics and (3) Ag teacher recommendation

CLASS OFFERED: Odd Numbered Years (Example: 2023-2024 and 2025-2026)



**VT4435 – AGRICULTURAL STRUCTURES**

Students will become proficient in arc and mig welding along with oxy-acetylene and wood working. Each student will build a project using woodworking or metalworking skills, agricultural building analysis, plumbing and concrete. They will develop a Supervised Agriculture Experience (SAE) program. Leadership development is required through a membership in the FFA Chapter.

GRADE LEVEL: 11, 12

CREDIT: 1 unit

DURATION: 2 semesters (full year)

PREREQUISITE: (1) VT 4443 – Intro to Agriculture, Food and Natural Resources; and (2) VT 4360 – Agricultural Mechanics and (3) Ag teacher recommendation

CLASS OFFERED: Even Numbered Years (Example: 2024-2025 and 2026-2027)



**AG – PLANT SPECIFIC**

**VT 4320 – HORTICULTURE**

Students will receive classroom and hands-on experience in plant science and plant propagation, plant identification, greenhouse operation and management along with careers and personal development. Students will grow poinsettias and other greenhouse crops while learning the requirement to produce and market various plant types. Students will continue developing their Supervised Agriculture Experience (SAE) program. Leadership development is required through a membership in the FFA Chapter.

GRADE: 11, 12

CREDIT: 1 unit

DURATION: 2 semesters (full year)

PREREQUISITE: (1) VT 4443 – Intro to Agriculture, Food and Natural Resources; and (2) Ag teacher recommendation

CLASS OFFERED: Even Number Years (Example: 2024-2025 and 2026-2027)



**VT 4380 – FLORICULTURE**

Students will develop skills in the production, arrangement and retailing of flowers. It includes fresh, silk, or dried flowers to be used in the design of corsages, wedding bouquets, table flower arrangements, and seasonal holiday decorations like poinsettias. They will develop a Supervised Agriculture Experience (SAE) program. Leadership development is required through a membership in the FFA Chapter.

GRADE: 11, 12

CREDIT: 1 unit





DURATION: 2 semesters (full year)  
 PREREQUISITE: (1) VT 4443 – Intro to Agriculture, Food and Natural Resources; and (2) Ag teacher recommendation  
 CLASS OFFERED: Odd Number Years (Example: 2023-2024 and 2025-2026)

## **AG – Natural Resources and Conservation**

### ***VT 4346 – NATURAL RESOURCES MANAGEMENT***

Students will analyze the importance of the management of natural resources. They will learn about the history and policies associated with natural resource and issues facing the management of natural resources such as: water, soil, wildlife, and our forests. Students will continue developing their Supervised Agricultural Experience (SAE) program. Leadership development is required through a membership in the FFA Chapter.

GRADE LEVEL: 11, 12

CREDIT: ½ unit

DURATION: 1 semester

PREREQUISITE: (1) VT 4443 – Intro to Agriculture, Food and Natural Resources; and (2) Ag teacher recommendation

CLASS OFFERED: Even Number Year (Example: 2024-2025 and 2026-2027)



## **AG – FOOD SCIENCE**

### ***VT 4451 – FOOD SCIENCE AND TECHNOLOGY***

Students will learn how food is processed and how food safety is maintained. They will learn about the advancements made in food technology and the importance of a safe food supply. Current events in food innovation and safety will also be studied in this course. Students will continue developing their Supervised Agricultural Experience (SAE) program. Leadership development is required through a membership in the FFA Chapter.

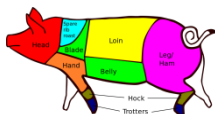
GRADE LEVEL: 10, 11, 12

CREDIT: ½ unit

DURATION: 1 semester

PREREQUISITE: (1) VT 4443 – Intro to Agriculture, Food and Natural Resources; and (2) Ag teacher recommendation

CLASS OFFERED: Odd Numbered Year (Example: 2023-2024 and 2025-2026)



## **AG – ANIMAL SPECIFIC**

### ***VT 4433 – Ag SCIENCE - Animal***

Student experiences will involve the study of animal anatomy, physiology, behavior, nutrition, reproduction, health, selection, and marketing. Students will explore hands-on projects and activities to learn the characteristics of animal science, and work on major projects and problems similar to those that animal science specialist, such as veterinarians, zoologist, livestock producers, and industry personnel face in their respective careers.

GRADE LEVEL: 10, 11, 12

CREDIT: 1 unit

DURATION: 2 Semesters (full year)

PREREQUISITE: (1) VT 4443 – Intro to Agriculture, Food and Natural Resources; and (2) Ag teacher recommendation

CLASS OFFERED: Every Year

### ***VT 4385 – VETERINARY SCIENCE***

Students will learn the skills necessary to work in an animal health clinic. Basic knowledge of veterinary procedures, animal health needs, disease prevention, and employability skills will be covered in this course. Students will gain hands-on experiences in animal injections, testing, and restraints. Students will be required to take a practice Vet Science Career Development Event test. Students will continue developing their Supervised Agricultural Experience (SAE) program. Leadership development is required through a membership in the FFA Chapter.

GRADE LEVEL: 10, 11, 12

CREDIT: ½ unit

DURATION: 1 semester

PREREQUISITE: (1) VT 4443 – Intro to Agriculture, Food and Natural Resources; and (2) Ag teacher recommendation

CLASS OFFERED: Odd Numbered Years (Example: 2023-2024 and 2025-2026)



## **AG – BUSINESS SPECIFIC**

### ***VT 4355 – AG BUSINESS AND MANAGEMENT***

Students will learn about opportunities available in agribusiness involving sales and marketing. They will learn how to develop advertising displays and how to keep business records, personnel management, and human relations and communications. They will receive instruction in how to successfully interview and create a resume. Students will continue developing their Supervised Agricultural Experience (SAE) program. Leadership development is required through a membership in the FFA Chapter.

GRADE LEVEL: 11, 12

CREDIT: ½ unit

DURATION: 1 semester

PREREQUISITE: (1) VT 4443 – Intro to Agriculture, Food and Natural Resources;

and (2) Ag teacher recommendation CLASS OFFERED: Even Number Year (Example: 2024-2025 and 2026-2027)



## **AG – EXPERIENCE SPECIFIC**

### ***VT 4410 – SUPERVISED AGRICULTURE EXPERIENCE (SAEP) COOP I***

### ***VT 4420 – SUPERVISED AGRICULTURE EXPERIENCE (SAEP) COOP II***

The Supervised Agriculture Experience includes the use of microcomputers, personnel management, human relations and communication. The student will analyze the developed Supervised Agriculture Experience Program and leadership development through active membership in the Perryville FFA. The teacher/coordinator will provide both in-class related instruction and supervision of students' on-the-job training. There will be a written Instructional Management Plan between the school and training sponsor identifying both in-class instruction and on-the-job training. A written training agreement will be made between the school and the training sponsor who assures students are employed and compensated in conformity with federal, state and local laws, and without regard to race, color, national origin, sex, or handicap.

GRADE LEVEL: 12

CREDIT: 1 unit per 10 hours worked with a max of 2 units

DURATION: 1 year (2 semesters)

PREREQUISITE: (1) VT 4443 – Intro to Agriculture, Food and Natural Resources; and (2) Current enrollment in another Agricultural Education class; and (3) Ag teacher recommendation

CLASS OFFERED: Every Year



## BUSINESS MARKETING & MANAGEMENT

**Note: Students enrolled in business classes are encouraged to join and participate in the Future Business Leaders of America (FBLA) organization. Students have the opportunity to participate in social, service, and educational activities. Students may receive recognition for achievement in local, state, and national contests.**

### **BS 1140 – COMPUTER APPLICATIONS**

Computer Applications is designed to expand the student's skills and knowledge in the following areas—word processing, spreadsheets, databases, and presentation software. In addition, students will be introduced to basic desktop publishing. Students will learn to apply editorial skills such as proofreading and making corrections as well as work on developing typing speed and accuracy. Basic keyboarding skills will be reviewed. All skills will be taught using Microsoft software.

GRADE: 9, 10, 11, 12

CREDIT: 1 unit

DURATION: 2 semesters (full year)

PREREQUISITE: None

### **BS 1143 – DESKTOP PUBLISHING**

Desktop publishing is a class designed to teach students the fundamentals of presentation design. Students will use various programs to create visual presentations, desktop publishing items, and web pages. During the class, students will use digital cameras, scanners, and graphic software to enhance their work. Demand for the skills learned in this class will continue to increase as businesses utilize the creativity of desktop publishing in their business to create websites, brochures, ads, flyers, business cards, letterhead, and much more.

GRADE: 10, 11, 12

CREDIT: 1 unit

DURATION: 2 semesters (full year)

PREREQUISITE: BS 1140 Computer Applications

### **BS 1145 – PERSONAL FINANCE**

Personal Finance includes the study of budgeting, money and banking services, saving and investing, and credit. Students will learn to apply decision making skills to set personal goals and to make informed decisions about real world financial issues. Students will learn about career preparations, pre-employment skills, and components of income.

GRADE LEVEL: 10, 11, 12

CREDIT: ½ unit

DURATION: 1 semester

PREREQUISITE: None

### **BS 1160 – ACCOUNTING I**

Accounting I is a study of the theory and practices of double-entry methods of recording business transactions. The student will analyze and record business transactions in journals and ledgers, prepare financial statements, and close the fiscal period. The opportunity to develop entry-level accounting skills and a basis for the continued study of accounting will be provided. The student will spend class time working on accounting problems and accounting business simulations. Computers will be used to automate accounting problems.

GRADE LEVEL: 11, 12

CREDIT: 1 unit

DURATION: 2 semesters (full year)

PREREQUISITE: None



### **BS 1170 – ACCOUNTING II**

Accounting II is the second course in a two-year high school program. It further acquaints the student with the use of business papers, forms, and reports involved in keeping financial records. This course will help the student acquire a more in-depth knowledge of accounting procedures and techniques utilized in analysis, interpretation, and solving business problems and making informed financial decisions. Computers will be used to automate accounting problems.

GRADE LEVEL: 12

CREDIT: 1 unit

DURATION: 2 semesters (full year)

PREREQUISITE: Accounting I

## BUSINESS MARKETING & MANAGEMENT

**Note: Students enrolled in marketing or management classes are required to join and participate in DECA (an association of marketing students). Students have the opportunity to participate in social, service, and educational activities. Students may receive recognition for achievement in local, state, and national contests.**

### **VT 4691– BUSINESS MARKETING**

Business Marketing is designed to provide students with an understanding of the procedures involved in the marketing of goods and services. Areas of study include product development, pricing, promotion, and selling. Activities will include creating new products; writing a business plan; packaging and labeling for products; designing floor plans for product placement; sales presentations; and designing ad campaigns. Computers will be used throughout the course for research, presentations, and creation of projects.

GRADE LEVEL: 11, 12

CREDIT: 1 unit

DURATION: 2 semesters (1 full year)

PREREQUISITE: None



### **VT 4700 – BUSINESS MANAGEMENT**

Business Management offers practical guidance on how to develop management skills and become an effective manager. Areas of study include the planning, organizing, and controlling of a business, with emphasis on the knowledge necessary for managing and allocating resources, and wise decision making. Topics covered job performance and evaluations; communication skills; organizational structure; managing diverse groups; ethical situations; global competition; and social, environmental, and legal issues involved in owning a business.

GRADE LEVEL: 11, 12

CREDIT: 1 unit

DURATION: 2 semesters (1 full year)

PREREQUISITE: None