

2026-2027

HCC Course Catalog

Davis H.

Hart Career Center

Building bright futures since 1968.



HCC Courses Offered:

- Agricultural Education
- Automotive Technology
- Computer Science
- Construction Technology
- Cosmetology
- Diesel Technology
- Graphic Arts
- Health Sciences
- Marketing
- Pre-Engineering-PLTW
- Teaching Professions
- Welding Technology
- Cyber Support and Networking



Serving: MMA • Montgomery County • North Callaway • Wellsville/Middletown • Mexico • Community R-6 • Van-Far • Fulton • Paris

Chris Denham, director & Keri Poehlman, student services coordinator • 904 N. Wade, Mexico, MO
call: 573-581-5684 • email: kpoehlman@mexico.k12.mo.us • HartCareerCenter.org

HART CAREER CENTER - COURSE LISTINGS

Davis H. Hart Career Center

Hart Career Center offers a variety of career and technical programs to secondary students from nine area schools. Our programs provide entry level skills and training in technical and service job areas that are in demand in today's economy. Our classes also provide preliminary skills and training for other technical fields like engineering, computer networking, healthcare and other careers. Our goal is to provide students the opportunity to develop relevant, useful and in-demand skills for the 21st Century. Secondary students receive high school credit for their career center classes and certificates are awarded for satisfactory completion of each program. Students will enroll in courses through the high school enrollment process. Students should make sure they complete the high school enrollment paperwork in a timely manner including the HCC Application, if applicable to the courses you are requesting. Each program has maximum enrollment guidelines based on safety, supervision and technology consideration.

National Technical Honor Society

NTHS strives to bring well deserved recognition, scholarship opportunities, and career opportunities to students who excel in one of the 108 career and technical educational fields as their profession. Not only do NTHS students embody all the attributes and talent which is in demand today, these students also embrace a clear vision for tomorrow's workforce and their role in it. NTHS understands changes in industry within local communities and on a global scale. The Hart Career Center participates in NTHS and recognizes our NTHS members at the yearly HCC Awards Night. Visit NTHS.org for more information.

SkillsUSA

SkillsUSA is a student-led organization partnering with CTE teachers and industry. The organization works together to ensure America has a skilled workforce helping each student excel. A nonprofit national education association, SkillsUSA serves students preparing for careers in trade, technical and skilled service occupations, empowering its members to become world-class workers, leaders and responsible American citizens. The SkillsUSA Framework includes personal, workplace and technical skills grounded in academics. Membership includes regional, state and ultimately national contests for students in the same areas of study. The Hart Career Center is actively involved in Skills USA and encourages our students to participate. Visit SkillsUSA.org for more information.



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AGRICULTURAL PROGRAM

Mexico students Only - The Missouri Department of Elementary and Secondary Education allows three approved Agricultural Education courses to be used as a science waiver for high school graduation. If you are interested in using a three for one science waiver talk to your high school counselor. The three approved agricultural classes (Agriculture Science I, Agriculture Science II, and one upper level approved course) would waive the third-year required science course. Be aware that some colleges or universities may require three science credits and by waiving the third credit you may not meet admission requirements.

Agricultural Science I (C1000)

Grade Level: 9, 10, 11, 12

Credits: 1

Credit Type: Practical Art

Note: Class is FFA Eligible and FFA Trap Shooting Team Eligible

Course Description: Want to learn about animals? Agriculture Science I is an introductory course about animal science with a focus on beef, swine, dairy and poultry production. In addition to animal science topics, students will complete an FFA history and wood shop unit as well as OSHA safety training. There are large hands-on projects.

Certification: students are required to complete a 10-hour OSHA safety course.

Student Organization: Students are highly encouraged to join the Mexico FFA Chapter

Agricultural Science II (C1010)

Grade Level: 10, 11, 12

Credits: 1

Credit Type: Practical Art

Prerequisite: Successful completion of Agricultural Science I and OSHA safety course.

Note: Class is FFA Eligible and FFA Trap Shooting Team Eligible

Course Description: This class is the second step for Ag students who wish to take upper level courses at the Mexico Agriculture Department. Students will have opportunities to study many areas briefly before taking upper level courses as a junior and senior. This is a plant science focused course with emphasis on crop and soil science. Along with these hands-on units, students are able to prepare for advancement in the FFA and gain important career skills through units in Leadership, Career and Personal Development, SAE, and Resume Building.

Student Organization: Students are highly encouraged to join the Mexico FFA Chapter

Agriculture Communication & Leadership (C1006)

Grade Level: 11, 12 **Credits:** 1 **Credit Type:** Practical Art **Prerequisite:** Successful completion of Agricultural Science I & II

Note: Enrollment in this class allows students to be in FFA and on the Trap Team.

Course Description: Are you creative? How about taking a class that lets you express your creativity through communication both oral and written. Ag Communication & Leadership is a course designed to help shape you into a better communicator and to improve your leadership skills. Students will look into media types and uses, understand research processes, research agricultural issues, and develop leadership skills. Record books are expected to be completed while in this course.

Student Organization: Students are highly encouraged to join the Mexico FFA Chapter

Agricultural Construction I (C1017)

Grade Level: 10, 11, 12

Credits: 1

Credit Type: Practical Art

Prerequisite: Successful completion of Ag Science I and OSHA safety course. Completion or concurrent enrollment in Ag Science II

Note: Class is FFA Eligible and FFA Trap Shooting Team Eligible

Course Description: This class is a balanced introduction of most construction aspects. Larger units are woodworking and metal fabrication. Smaller units include: Small engines, Concrete, Plumbing, Electricity, and Precision Agriculture. For those students interested in a career working with your hands, this course is a necessary step in the Ag Construction career pathway.

Student Organization: Students are highly encouraged to join the Mexico FFA Chapter

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Agricultural Construction II (C1018)

Grade Level: 11, 12

Credits: 1

Credit Type: Practical Art

Prerequisite: Successful completion of Ag Science I, Ag Science II, and Ag Construction I

Note: Class is FFA Eligible and FFA Trap Shooting Team Eligible

Course Description: This class is the second step for Ag students who wish to take upper level courses within the Mexico Agriculture Department. Students will have opportunities to study many areas briefly before taking upper level courses as a junior and senior. These units are Woodworking, Welding, Conservation, Soils, Plant and Food Science. Along with these hands-on units, students will prepare for advancement in FFA and gain career skills through units in Leadership, Career and Personal Development, SAE, and Resume building.

Student Organization: Students are highly encouraged to join the Mexico FFA Chapter

Animal Science (C1016)

Grade Level: 11, 12

Credits: 1

Credit Type: Practical Art

Prerequisite: Successful completion of Agricultural Science I & II

Course Description: Animal Science is a project-based course that allows students to learn more about animal nutrition, genetics, reproduction, and animal health. This course goes beyond what is learned at the Agriculture Science I level and focuses more on production animal agriculture. Record books are expected to be completed while in this course.

Student Organization: Students are highly encouraged to join the Mexico FFA Chapter

Food Science (C1055)

Grade Level: 11, 12

Credits: 1

Credit Type: Practical Art

Prerequisite: Successful completion of Agricultural Science I & II

Note: Enrollment in this class allows students to be in FFA and on the Trap Team.

Course Description: Want to learn more about how foods are processed and the science behind those processes? Units studied will include: Principles of Food Preservation, Food Processes, Food Selection and Consumer Health, Leadership, and more. Record Books are expected to be completed while in this course.

Student Organization: Students are highly encouraged to join the Mexico FFA Chapter

Greenhouse I (C1053)

Grade Level: 11, 12

Credits: 1

Credit Type: Practical Art

Prerequisite: Successful completion of Agricultural Science I and II

Note: Enrollment in this class allows students to be in FFA and on the Trap Team.

Course Description: Greenhouse I introduces students to the basics of greenhouse plant production and management. Using our school greenhouse, students get hands-on experience with plant care, propagation, transplanting, and understanding how temperature, light, water, and soil impact growth. Record Books are expected to be completed while in this course.

Student Organization: Students are highly encouraged to join the Mexico FFA Chapter

Greenhouse II (C1054)

Grade Level: 11, 12

Credits: 1

Credit Type: Practical Art

Prerequisite: Successful completion of Agricultural Science I and II and Greenhouse I.

Note: Enrollment in this class allows students to be in FFA and on the Trap Team.

Course Description: Greenhouse II builds on the skills learned in Greenhouse I and gives students a more active role in managing our school greenhouse, including selecting seasonal crops and making key management decisions. Students take on responsibilities such as crop planning, pest management, and maintaining plant health while gaining deeper insight into commercial greenhouse practices.

Student Organization: Students are highly encouraged to join the Mexico FFA Chapter

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Floriculture (C1052)

Grade Level: 11, 12

Credits: 1

Credit Type: Practical Art

Prerequisite: Successful completion of Agricultural Science I and II and Greenhouse I.

Note: Enrollment in this class allows students to be in FFA and on the Trap Team.

Course Description: This course introduces students to the skills and techniques used in the floristry industry. Students will learn the basics of floral design, including proper flower handling, stem preparation, and the use of florist tools and materials. The class covers common design styles and floral pieces such as bouquets, centerpieces, and simple wearable arrangements. Students will also practice flower identification, color harmony, and the principles of arranging fresh cut flowers. This course provides a strong foundation in floral design while giving students hands-on experience with real-world floristry work.

Student Organization: Students are highly encouraged to join the Mexico FFA Chapter

Supervised Agricultural Experience Co-Op (SAE) (C1002)

Grade Level: 11, 12

Credits: 1 or 2

Credit Type: Practical Art

Prerequisite: Successful completion of Agricultural Science I & II and be dual enrolled in Agriculture Communication & Leadership. Must have a satisfactory SAE project (approved by the Agricultural instructors and HCC administration)

Course Description: This course provides for the enrollment of students that are released on school time to complete a cooperative occupational experience in an approved training station in agriculture. A signed training agreement and training plan must be completed for each student. Membership in FFA is expected. The students will be required to complete monthly record book entries and bi-weekly journals.

Student Organization: Students are highly encouraged to join the Mexico FFA Chapter

AUTOMOTIVE TECHNOLOGY

Auto Mechanics I (3 Hour) (C6042)

Auto Mechanics II (3 Hour) (C6043)

Grade Level: 11, 12

Credits: 3

Credit Type: Practical Art

Course Description: This Automotive Service Excellence (ASE) certified-program prepares students to meet the challenges of diagnosing today's automobiles. State-of-the-art equipment is provided to prepare students to perform the repair tasks involved in the automotive industry. The curriculum is delivered through a combination of computer-based modules and shop work.

Certification: Year I: OSHA Training • Year II: ASE Exams in Maintenance & Light Repair, Suspension & Steering, Brakes, and Electrical Systems.

Student Organization: Students are encouraged to join and participate in SkillsUSA

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COMPUTER SCIENCE

DC Programming I (C5081)

Grade Level: 9, 10, 11, 12

Credit: 1

Credit Type: Practical Art

Prerequisite: C or better in Algebra I

Course Description: Learn the fundamentals of programming with C#, including input/output, repetition, decisions, object-oriented programming, data structures and more!

Students in grades 11 or 12 may take this course as dual credit for 3 credit hours from State Technical College of Missouri. Additional paperwork and fees will apply. Students enrolling in this course for dual credit from State Technical College of Missouri must meet the following criteria:

- 3.00 Cumulative GPA
- English: 18+ ACT or 251+ ACCUPLACER
- Minimum of a B in Advanced Algebra
- Reading: 18+ ACT or 250+ ACCUPLACER
- Minimum of a B in most recent ELA course
- Mathematics: 22+ ACT or 265+ ACCUPLACER

Programming II (C5088)

Grade Level: 10, 11, 12

Credit: 1

Credit Type: Practical Art

Prerequisite: C or better in DC Programming I

Course Description: Continue expanding your skills and your versatility with Python! Students completing this course will have the opportunity to earn the credential *Information Technology Specialist: Python*.

Student Organization: Students are encouraged to join and participate in SkillsUSA

Applied Programming: Video Game Design I (C5115)

Grade Level: 9, 10, 11, 12

Credit: 1

Credit Type: Practical Art

Prerequisite: C or better in Algebra I

Course Description: Start on a path to professional video game development in this class! You will be introduced to beginning game design concepts and dive into C# programming with Unity game engine development as we build our way through a history of game design. From Pong to Space Invaders to Tetris to Fruit Ninja...everyone can put their favorite classic in their portfolio!

Applied Programming: Video Game Design II (C5116)

Grade Level: 10, 11, 12

Credit: 1

Credit Type: Practical Art

Prerequisite: C or better in Applied Programming: Video Game Design I

Course Description: In this class, you will work on a game design team with your classmates and take a concept from a design document to a complete game over the course of the year. In the process, we'll learn more about getting into the industry and how to manage development, which will enhance your ability to work on an Agile Scrum team that goes well beyond "group work." Students completing this course will have the opportunity to earn the credential *Unity Certified User: Programmer*.

Student Organization: Students are encouraged to join and participate in SkillsUSA

Applied Programming: VR/AR I (C5123)

Grade Level: 9, 10, 11, 12

Credit: 1

Credit Type: Practical Art

Prerequisite: C or better in Algebra I

Course Description: Do you enjoy mobile apps that interact with your surroundings? Do you like to play games in VR? In this course, we use the Unity engine to create our own!

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Applied Programming: VR/AR II (C5124)

Grade Level: 10, 11, 12

Credit: 1

Credit Type: Practical Art

Prerequisite: C or better in Applied Programming: VR/AR

Course Description: This course is for students looking for the skills and experience that will enable them to be the creators of tomorrow. Whether you want to create an interactive walkthrough of an ancient ruin, a product configurator for a car manufacturer, a simulator for operating dangerous machinery, or any other experience, this course will help you bring those ideas to life in VR and AR! Students completing this course will have the opportunity to earn the credential *Unity Certified User: VR Developer*.

Student Organization: Students are encouraged to join and participate in SkillsUSA

Capstone Course - (C5110)

Grade Level: 11, 12

Credit: 0.5 or 1

Credit Type: Practical Art

Prerequisite: overall C or better in a program completion path (4 credits in 2 areas, minimum); INSTRUCTOR APPROVAL REQUIRED

Course Description: This capstone course will require a pre-approved plan of independent study in which the student will research and implement a design for a program, game, AR or VR app, CS-centered esports project, or combination thereof. The capstone project may be undertaken as a one- or two-semester course. The plan must be presented and approved BEFORE spring registration.

CONSTRUCTION

Introduction to Construction - 1 hour (C6024)

Grade Level: 10

Credits: 1

Credit Type: Practical Art

Course Description: Introduction to Construction allows students to have a brief overview of the construction industry. Intro to construction will complete a basic safety seminar during the first month. Students will then move on to small projects that focus on their ability to utilize small power tools of the trade. Handling of materials and tools will be addressed. Students will have the opportunity to study residential, commercial, industrial and public works and how they work and interrelate with one another to make our economy grow and provide the backbone to our country and culture. Students will then be allowed to work on various projects their counterparts in Construction I and II work on. Students are expected to demonstrate safety practices and teamwork. Students are expected to demonstrate professionalism at all times on the job.

Construction Technology I - 3 hours (C6022)

Construction Technology II - 3 hours (C6023)

Grade Level: 11, 12

Credits: 3

Credit Type: Practical Art

Prerequisite for Construction Tech II: Completion of OSHA 10 and successful completion of Construction I

Course Description: Construction Technology is for students who plan to work in construction related occupations. Construction Technology I students are required to complete OSHA 10 safety certification. Students will receive training in the various aspects of the construction industry. Included in this course are hands-on experiences as well as classroom content related to construction project planning and management, trade skills, and safety. Students are expected to be able to perform basic construction related math. Students will perform calculations to figure the cost of jobs, write bids and estimates. Students are expected to demonstrate safety practices and teamwork. Students are expected to demonstrate professionalism at all times on the job. Exceptional Senior students (who demonstrate that they have mastered the above criteria) are given the opportunity to have outside apprenticeships in their spring semester.

Student Organization: Students are encouraged to join and participate in SkillsUSA

Certification: Year I: OSHA Training • Year II: Carpenter Union Career Essentials I & II.

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COSMETOLOGY

Cosmetology I - 3 hours (C7010)

Grade Level: 11

Credits: 3

Credit Type: Practical Art

Required: Cosmetology Application with fee of \$25/Meeting & Interview Process/Early Deadline

Cosmetology II - 3 hours (C7011)

Grade Level: 12

Credits: 3

Credit Type: Practical Art

Prerequisite: Successful completion of Cosmetology I

Required: A school kit is required for each student accepted into the program and includes tools and books needed for the course.

Total cost of kit: \$700 Payment Schedule: Sophomore year: \$250 due the first Friday of May, Junior year: \$250 due the first Friday of May, Senior year: \$200 due the last Friday of March. State board testing fee of \$150 will be due May of Senior year.

Course Description: This course is for students who wish to pursue a career in the field of Cosmetology. Cosmetology consists of haircutting, hair coloring, shampooing, styling, arranging hair, manicures, pedicures, hair removal, scalp treatments, chemical texture services (perms and relaxers), disinfection procedures and many other services. Students are required to have a specific amount of hours in each of the subjects required by the MO State Board of Cosmetology and Barber Examiners. This program is offered to secondary and post-secondary students through an application and interview process. Students are required to have a student license issued by the MO State Board of Cosmetology and Barber Examiners prior to the beginning of school. Hours will be the same as the rest of HCC depending on whether you are a morning or afternoon student and students will attend class Monday-Friday. Once a student has acquired 160 hours they will be allowed to work on actual clients in the salon. The Cosmetology school is open to the public and clients come to the school to have students perform services on them.

Certification: Once students' requirements have been fulfilled, students will be required to take a written State Board exam and a practical State Board exam. Once both exams have been taken and passed, the student will be issued a CA Cosmetology License.

Student Organization: Students are encouraged to join and participate in SkillsUSA

CYBER SUPPORT & NETWORKING

IT Fundamentals - 1 hour (C6119)

Grade Level: 10, 11, 12

Credit: 1

Credit Type: Practical Art

Prerequisite: Completion of Algebra I with a C or better

This class explores the topic of information technology. Introductory topics such as basic internal computer hardware operation and computer operating systems are covered. Other topics will include: essential computer applications, the Internet, basic cybersecurity, and cloud-based computing. Students will also be using a Raspberry Pi computer to explore digital electronics and computer programming. This class is NOT a computer applications class, but instead explores the underlying technologies that make computers and networks do what they do!

Computer and Network Support - 2 hours (C6101)

Grade Level: 11, 12

Credits: 2

Credit Type: Practical Art

Prerequisite: IT Fundamentals or concurrent enrollment, completion of Algebra I with a C or better

Course Description: This class will train students in the field of computer technology support. Students will learn about computer operating systems, computer hardware and peripherals, mobile devices, and various utility applications. Students will also learn about the setup of computer networks and will configure computer devices to communicate on a network. Troubleshooting computer devices and networks, as well as performing modifications and upgrades, will be emphasized. Basic IT security concepts will be

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addressed throughout the course. Training for obtaining the CompTIA A+ IT support certification is emphasized in this program. Students will be given the opportunity to earn the CertMaster course certificate at the end of this class.

Certification: CertMaster A+ course certificate

Student Organization: Students are encouraged to join and participate in SkillsUSA

Networks & Cybersecurity - 3 hours (C6102)

Grade Level: 12

Credits: 3

Credit Type: Practical Art

Prerequisite: B average in IT Fundamentals and Computer and Network Support

Course Description: This is an advanced three-hour class that trains students in the setup and support of local area networks. Students will construct their own computer network, configure computer and network equipment, and work with Windows and Linux based servers. Advanced concepts such as virtualization, scripting, disaster recovery, and network protocols/services, and troubleshooting will be covered. Students will also learn about how networks and systems can be compromised, and how to properly defend against different types of cyber-attacks. Cybersecurity concepts will be stressed throughout this course. Students will be given the opportunity to get an IT support certification at the end of the course.

Certification: CompTIA A+ industry certification

Student Organization: Students are encouraged to join and participate in SkillsUSA

DIESEL MECHANICS

Diesel Mechanics I - 3 hours (C1103)

Diesel Mechanics II - 3 hours (C1104)

Grade Level: 11, 12

Credits: 3

Credit Type: Practical Art

Prerequisite: An interest in a career in Ag-machinery sales and services, diesel technology or related fields.

Course Description: As a student in the Agriculture Machinery/Diesel Technology program you should be able to:

- Manipulate tools and equipment safely and skillfully
- Communicate ideas verbally
- Be organized
- Be willing to work with precise limits and standards
- Walk and move around in shop and field assignments
- Lift and carry 50 pounds
- See and hear well (normal or corrected)
- Judge depth and distance

This program is a two-year, highly technical program designed to prepare students to use critical thinking skills to explore basic diesel technology. This program is geared toward students with interest in the diesel related field. Knowledge gained in this program can be beneficial for students that decide to further their education in this related field, stay on the family farm, or go straight into the workforce for an entry level position. This program consists of practical knowledge and shop management skills to help you master installation, service, assembly, adjustment, repair, and operations of various types of diesel applications. You will also learn how to work with hydraulics, transmissions, electrical systems, and air conditioning, learn orientation and safety, engine repair, tuneup, and preventative maintenance, transmissions, brakes and diesel electrical systems.

Certifications: Year I - OSHA Training, Year II - ASE Exams in Medium/Heavy Truck: Brakes, Inspection Maintenance & Minor Repairs, Electrical/Electronic Systems, Diesel Engines and Steering & Suspension

Student Organization: Students are encouraged to join and participate in SkillsUSA

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GRAPHIC ARTS

Graphic Arts Occupations I - 3 hours (C6171)

Grade Level: 11, 12 *seating priority is given to Graphic Arts II students*

Credits: 3

Credit Type: Practical Art

Recommended Prerequisite: English with C or higher, strong basic math

Course Description: Graphic Arts Occupations I students learn the design process, elements and principles of design and printing applications as well as the fundamentals of the Mac OS using Adobe Creative Cloud design applications. The class is focused on visual communication using digital photography, typography, color theory, composition for print media and marketing solutions using Adobe Photoshop, Illustrator and InDesign. Students will be provided an AdobeCC account and can access all Creative Cloud apps while participating in the program. Students will learn design skills through hands-on projects and community client work. Projects may include logo design, branding, business cards, brochures, vinyl cutting and other various types of design and production. Students enrolling in this course should have a strong interest in subjects such as visual and commercial art, advertising, multimedia design, printing processes and operations. Graphic Arts Occupations will follow modified Missouri Department of Education, PrintED/SkillsUSA Graphic Communications competencies and the Adobe Certified Professional - Visual Design certification standards.

Students who take this course will prepare them for the workforce while building a strong portfolio, resume and workplace skills. Students taking Graphic Arts I should plan on attending Graphic Arts II to complete the program.

Student Organization: Students are encouraged to join and participate in SkillsUSA

Graphic Arts Occupations II - 3 hours (C6172)

Grade Level: 12

Credits: 3

Credit Type: Practical Art

Prerequisite: Successful completion of Graphic Arts Occupations I

Course Description: Graphic Arts Occupations II students will refine their design and printing skills learned in Graphic Arts Occupations I. Continued use of AdobeCC applications will enhance skills from the previous year.

A broad project base will expose the student to many areas of the print industry. Students will continue to work with clients, create logos, brochures, advertisements, vinyl banners and stickers as well as learn new printing processes like DTF, sublimation and large format printing. This class will focus on real-world, team based projects throughout the year allowing students to work with clients building valuable employability skills and a robust portfolio.

Each student will complete the class with a digital portfolio suitable for use when applying for employment and college design programs. Graphic Arts Occupations will follow modified Missouri Department of Education Competencies, PrintED/SkillsUSA Graphic Communications competencies and Adobe Certified Professional - Visual Design certification standards.

On the Job Training is an option for a successful fourth semester student in the Graphic Design program. OJT allows the student to obtain employment within the industry and would allow the student to work during classroom hours. The OJT program is an excellent opportunity for students to gain and be paid in an entry level position, while completing the program.

Certifications: Adobe Certified Professional in Visual Design Using Adobe Photoshop and Graphic Design & Illustration Using Adobe Illustrator or Print & Digital Media Publication Using InDesign, PrintED/SkillsUSA GAERF® Certification in Advertising Design

Student Organization: Students are encouraged to join and participate in SkillsUSA

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HEALTH SCIENCES

Medical Terminology- 1 Hour (C3021)

Grade Level: 11, 12

Credit: 1

Credit Type: Practical Art

Course Description: Are you interested in a health related career? This course will help you decode and understand terminology used in the medical field. It is a foundational course for any health profession. Mexico High School students may take Medical Terminology independently as a 1 hour course or as part of the Health Sciences block. Area sending school students take Medical Terminology within their Health Sciences block.

Health Sciences- 2 hours (C3015)

Grade Level: 11, 12

Credits: 2

Credit Type: Practical Art

Prerequisite: 17 years-old before January of school year enrolled

Course Description: Health Sciences is a one-year course of study that prepares students for employment in a long-term care facility, as well as work for home health care agencies, hospitals, doctor's offices, private pay services, and many other employers or to continue on to pursue a college education in health care. The program is designed to teach skills in resident care which will qualify students to perform basic nursing procedures and to assist licensed practical nurses or registered professional nurses in direct resident care.

First semester consists of classroom and simulated lab settings that introduce vocabulary related to health care, anatomy and physiology, basic nursing skills, fire safety and disaster training, resident safety and rights, social and psychological problems of residents, and the methods of handling and caring for mentally confused residents.

Second semester consists of 100 hours of supervised on-the-job training (clinical practice) many which will be outside of the school day. Clinicals require students to perform hands-on patient care with residents at local Long-Term Care Facilities. Hands-on patient care includes skills such as: performing vital signs, supporting residents with activities of daily living (showers, eating, toileting, etc.), and working with residents who have dementia, immobility, and other common geriatric conditions. Students are required to transport themselves daily to their assigned clinical setting. After completion of semester two clinical work, a written state exam is given and a practical exam is completed at a training site in order to become certified.

Clinical Requirements: In order to participate in On-Job-Training to acquire clinical hours for CNA certification, students will be required to pass a Family Care Safety Registry background check, have proof of a negative 2-Step TB test, and have proof of all immunizations being up to date. A flu shot is recommended, but not required. Students will need scrubs (color to be determined by the teacher) and appropriate shoes. The instructor will assist students in finding suitable placement.

Credentials/Certifications: OSHA for Health Care, American Heart Association Healthcare Provider Basic Life Support CPR certification and CNA certification

Student Organization: Students are encouraged to join and participate in SkillsUSA

MARKETING

Fundamentals of Marketing (C2000)

Grade Level: 9, 10, 11, 12

Credit: 1

Credit Type: Practical Art

Course Description: Explore the strategies and tactics used by the world's most successful companies. Class time blends creative group projects, individual assignments and in-depth analysis of innovative (as well as disastrous) marketing initiatives from well-known businesses. Learn and apply basic concepts of marketing and characteristics of free enterprise, including promotional strategies, branding/advertising, entrepreneurship, branding, pricing, economics, and product development/distribution. DECA membership, which is strongly encouraged to all marketing students, offers additional opportunities to participate in marketing-related conferences, field trips, and competitions.

Student Organization: Students are encouraged to join and participate in DECA or SkillsUSA

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Advanced Marketing (C2010)

Grade Level: 10, 11, 12

Credit: 1

Credit Type: Practical Art

Prerequisite: Completion of Marketing or Entrepreneurship with a grade of "C" or better

Course Description: This course is designed to further develop the business/marketing skills established in the prerequisite courses and learn advanced business/ marketing skills in such areas as advertising, customer relations, supervision, employee- employer relations, product development, economics, research and communications. The course is project-based and will stress the importance of teamwork and the use of technology in order to complete assignments. Students are strongly encouraged to expand their marketing skills by participating in the DECA student organization. Students may earn college credit through Moberly Area Community College after successfully completing this course.

Student Organization: Students are encouraged to join and participate in DECA or SkillsUSA

Marketing Entrepreneurship (C2050)

Grade Level: 9, 10, 11, 12

Credit: 1

Credit Type: Practical Art

Course Description: Be immersed in a learning laboratory where you get to apply for and interview for specific jobs within the learning laboratory. Be a part of the managerial staff that assigns schedules, runs the spreadsheets for orders, and oversees workers. The positions of bakers, baggers, and cleaning crew will also be available. Bakers will prepare and cut the dough for dog biscuits. Baggers will fill orders and take care of quality control. The Cleaning Crew will take care of the dishes used, wipe down counters and sweep. Be prepared to be creative and you should be willing to work with a team. Dog biscuit orders will be prepared and sent out on a monthly basis, at minimum, as well as other pet items. These items are sold to the district staff. We will not be baking daily. Classwork will cover business management skills and basic economic principles. Students must be able to pass a safety test to be in the kitchen.

Student Organization: Students are encouraged to join and participate in DECA or SkillsUSA

Cooperative Marketing Education • No Credit • (C2040)

Cooperative Marketing Education (C2030)

Grade Level: 11, 12

Credits: 1 or 2

Credit Type: Practical Art

Required: COE Application (PDF shared with you via email or get a copy from your counselor). If a student does not have a job within the counseling department's time frame for allowed schedule change requests, then COE will be removed from the schedule.

Course Description: EARN WHILE YOU LEARN! Cooperative Marketing Education is a work experience program designed to put the marketing education student in an approved paying job. Students will work a minimum of 10 hours a week for each credit hour (2 credits maximum) at an approved job. The second year, students must have satisfactorily completed year 1 of Cooperative Marketing Education, have instructor's approval and be enrolled in a marketing class. Students continue in paid positions. Students work a minimum of 10 hours for each credit hour (2 credits maximum) with cooperation of their employers and the school. All worksites must have prior approval by the COE coordinator. Student must enroll and maintain a passing grade in a Marketing class. Student must pass Marketing and COE 1st semester in order to continue the 2nd semester.

Personal Finance • Required Graduation Course • (C4900)

Grade Level: 10, 11, 12

Credits: .5

Credit Type: Personal Finance

Course Description: Understanding and managing personal finances are key to one's future financial success. This one-semester course is based on the Missouri Personal Finance Competencies and presents essential knowledge and skills to make informed decisions about real world financial issues.. Students will learn how choices influence occupational options and future earning potential. The course content is designed to help the learner make wise spending, saving and credit decisions and to make effective use of income to achieve personal financial success. This course is required for graduation.

HART CAREER CENTER - COURSE LISTINGS

PRE-ENGINEERING- PROJECT LEAD THE WAY (PLTW)

PLTW is a nationally recognized engineering curriculum being offered in the Mexico School District. For more information see your guidance counselor or go to www.pltw.org

Engineering Essentials - EES-PLTW (C6079)

Grade Level: 9, 10, 11, 12

Credit: 1

Credit Type: Practical Art

Prerequisite: Must have completed Algebra I with a C or higher.

Course Description: Looking for STEM education? 3D printing? Computer Aided Drafting? Pre-engineering? The ESS course is where it starts! A full year course appropriate for students in grades 9-12, especially those 8th graders currently enrolled in Algebra or anyone ready for challenging and interesting math/science/engineering projects. Students will explore the work of engineers and their role in the design and development of solutions to real-world problems in a variety of industry sectors including health care, public service, product development and manufacturing. Student learning will center around four projects including designing a disaster relief center, designing a tool to help workers in a workplace, designing an electro-mechanical system to solve a problem, and working on an ecologically sustainable urban environment plan.

Note: THIS COURSE IS THE GATEWAY TO TAKE MANY OTHER PLTW ENGINEERING & STEM COURSES WE OFFER INCLUDING: Principles of Engineering, Computer Integrated Manufacturing, Civil Engineering & Architecture, and Engineering Design and Development (capstone).

Student Organization: Students are encouraged to join and participate in SkillsUSA

Principles of Engineering (PoE) (C6231)

Grade Level: 10, 11, 12

Credit: 1

Credit Type: Practical Art

Prerequisite: Completion of Algebra I with a C or higher, completion of EES or concurrently enrolled

Course Description: Through hands-on problems that engage and challenge, students explore a broad range of engineering topics, including mechanisms, the strength of structures and materials, and automation. Students develop skills in problem solving, research, and design while learning strategies for design process documentation, collaboration, and presentation. Students will build a variety of machines and mechanisms, build and program robotic machines, design their own bridge structure and experiment with projectile motion. Students who complete the course will have the opportunity for college credit hours and/or scholarships.

Student Organization: Students are encouraged to join and participate in SkillsUSA

Civil Engineering (CivE) (C6233)

Grade levels: 10, 11, 12

Credit: 1

Credit Type: Practical Art

Prerequisites: Completion of Engineering Essentials; completion of Geometry with a C or better

Course Description: Civil Engineering and Architecture (CEA) is a high school level specialization course in the PLTW Engineering Program. In CEA, students are introduced to important aspects of building and site design and development. They apply math, science, and engineering practices to design residential and commercial projects using 3D architectural design software. Both individually and as part of a team, students will progress from completing structured activities to solving open-ended projects and problems that require them to develop planning, documentation, communication, and other professional skills. Students will develop skills in engineering calculations, technical representation and documentation of design solutions, and use of current 3D architectural design and modeling software to represent and communicate solutions.

Student Organization: Students are encouraged to join and participate in SkillsUSA

HART CAREER CENTER - COURSE LISTINGS

Computer Integrated Manufacturing (CIM) (C6087)

Grade Level: 10, 11, 12 **Credit:** 1 **Credit Type:** Practical Art

Prerequisite: Engineering Essentials (ESS) or an upper-class STEM motivated student with instructor approval

Course Description: This hands-on class allows students to program a robotic arm, program a CNC machine, try out Laser cutting and engraving, perfect 3D drafting skills (CAD), build VEX machines, and even some 3D printing. Throughout the class students use principles of engineering, mathematics, and even learn about high-tech manufacturing principles in the real world. Whether you are a pre-engineer, interested in a bit of programming, problem solving, group & project-based learning, or just like science in general, this class could be for you.

Student Organization: Students are encouraged to join and participate in SkillsUSA

PLTW Lab (C6078)

Grade Level: 11, 12 **Credit:** 1 **Credit Type:** Practical Art

Prerequisites: Completion of EES, Principles of Engineering. Must be a sending school student enrolled in a 3 period block, with a course needed for program completion.

Course Description: Students will explore several different computer aided design (CAD) programs to learn the basics of 3d design.

Student Organization: Students are encouraged to join and participate in SkillsUSA

Engineering Design and Development (EDD) (C6232)

Grade Level: 12 **Credit:** 1 **Credit Type:** Practical Art

Prerequisites: Completion of EES, Principles of Engineering

Course Description: Have you ever wanted to work on a project you get to choose, build it and then take it to state and national competition? In this capstone course, students work in teams to design and develop an original solution to a valid open-ended technical problem of their choosing by applying the engineering design process. Students perform research to choose, validate, and justify a technical problem. After carefully defining the problem, teams design, build, and test their solutions while working closely with industry professionals who provide mentoring opportunities. Finally, student teams present and defend their original solution to an outside panel.

Student Organization: Students are encouraged to join and participate in SkillsUSA

TEACHING PROFESSIONS

Teaching Professions I - 3 hours (C8010)

Teaching Professions II - 3 hours (C8011)

Grade Level: 11, 12 **Credits:** 3 **Credit Type:** Practical Art

Dual Credit Offered: Students with a 3.0 GPA (or 2.5 with counselor recommendation) may enroll for dual credit.

Year 1: EDU 220 – Foundations of Education in a Diverse Society and EDU 225 – Teaching Professions with Field Experience

Year 2: EDU 233 – Multicultural Education and EDU 235 – Educational Technology

Course Description: This program is designed for students who are passionate about helping others learn and want to explore a future in education. Through hands-on classroom experience and college-level coursework, students gain a strong foundation in teaching practices, human development, and educational psychology – all while building valuable leadership and communication skills. This two-year program combines classroom learning with hands-on field experiences in Pre-K through middle school classrooms. It introduces students to the history and practice of teaching, classroom management, diverse educational settings, and contemporary

HART CAREER CENTER - COURSE LISTINGS

issues in education. The program encourages students to think deeply about what teaching involves, what teachers do, and whether education is the right career path for them.

Students will:

- Explore the historical, psychological, and social foundations of education
- Study human growth and development from birth through adolescence
- Learn about instructional strategies, classroom culture, and assessment
- Examine ethical issues and philosophies of education
- Complete field experiences in local schools from early childhood through middle school levels
- All A+ practical/tutoring hours can be earned while enrolled in this course.

Certifications: Substitute Teacher Training and Missouri ParaPro Assessment

Student Organization: Students are encouraged to join and participate in SkillsUSA

WELDING

Introduction to Welding - 1 hour (C6132)

Grade Level: 10

Credits: 1

Credit Type: Practical Art

Course Description: Welding safety, blueprint reading, welding equipment identification and operation.

Welding Technology I - 3 hours (C6121)

Welding Technology II - 3 hours (C6122)

Grade Level: 11, 12

Credits: 3

Credit Type: Practical Art

Course Description: Introduction to welding safety, blueprint reading, welding equipment identification and operation. Industrial welding that includes SMAW (stick welding) GMAW (mig welding) GTAW (tig welding) oxy fuel cutting, CAC (carbon arc cutting) PAC (plasma cutting). This class also includes American Welding Society code welding and opportunity for industry standard AWS welding qualification.

Certification: Year I: OSHA Training • Year II: AWS welding qualification

Student Organization: Students are encouraged to join and participate in SkillsUSA

HART CAREER CENTER - COURSE LISTINGS

Hart Career Center Admissions

Our Admissions Staff is here to help you with any questions you may have. We appreciate your interest in Hart Career Center and welcome the opportunity to help you further your education. For more information or to contact our admissions staff please call 573-581-5684 (secondary students, please see your home high school guidance counselor).

NOTICE OF NONDISCRIMINATION. Our School District prohibits discrimination and harassment against employees, students, or others on the basis of race, color, national origin, sex, age, ancestry, religion, or disability by law in admission or access to, or treatment or participation in its programs and activities. No qualified person with a disability is excluded from, denied benefits of, or subjected to discrimination in any course, program, service, or activity solely on the basis of disability.



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