



# CAREER TECH EDUCATION

## Class Offerings

### AUTO TECH 1 & 2 (2-Hour Block) (2 Credits Each) (MRC)

(Offered at Cousino)

These courses introduce students to the basic principles of vehicle maintenance and light repair (MLR). In addition to classroom instruction, students engage in “hands-on” activities and projects in a real life auto shop setting. Students learn professionalism, the importance of being motivated and having an appropriate and positive work attitude and work ethic. Advanced students further their skills on steering and suspension, electrical system diagnosis and other repairs. These courses are National Technical Educational Foundation (NATEF) certified. Students may be eligible to earn college credit.

### ACCOUNTING 1 & 2 (1 Credits Each) (MRC) (VPA)

(Offered at Warren Mott, Sterling & Cousino)

These courses provide students with the manual and computerized accounting skills used in small businesses. Students complete realistic accounting simulations and perform duties that assist the accountant in recording, sorting and filing financial data. Student will learn journalizing and posting transactions, reconciling a bank statement, completing a worksheet, creating a trial balance, balance sheet, income statement, adjusting and closing entries and implementing petty cash and payroll procedures. Advanced students will expand their knowledge and learn budgeting and departmental accounting systems. Students may be eligible to earn college credit.

### BUILDING TRADES 1 & 2 (2 Credits Each) (VPA) (MRC)

(Offered at Career Prep Center)

These courses provide students foundational skills needed for careers in the construction and building trades industries. Students learn industry related vocabulary, scale/blueprint reading, construction calculations, measuring, a variety of tools used in construction, ranging from basic hand-tools to modern power tools/equipment. Students complete projects such as framing structures and roofs, the application of siding, installation of fixtures, tile installation, drywall, plumbing, and electrical. Second year students advance the skills learned in Building Trades 1, and may have the opportunity to work on a residential single-family home. Students may be eligible to earn college credit.

### COLLISION TECH 1 & 2 (2 Credits Each) (VPA) (MRC)

(Offered at Career Prep Center)

These courses are National Automotive Technical Education Foundation (NATEF) certified programs that provide students foundational skills in a real-world shop setting. Students are introduced to metalworking, painting, body repair, MIG welding and shop safety. The first year students work on building-up their hours of experience in each skill necessary to become a successful collision repair technician. Second year students advance their skills and are introduced to frame technology, estimating and customer service. Certification credit for one of the two years of work experience required for Automotive Service Excellence (ASE) testing is available to students upon successful completion of the course. Students may be eligible to earn college credit.



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## Class Offerings

### COMPUTER INFORMATION SYSTEMS (CIS) 1 & 2 (2 Credits Each) (VPA) (MRC) (Offered at Career Prep Center)

These courses provide students the fundamentals of programming and 2D& 3D game development. Students learn HTML an Dreamweaver, Visual Basic, C++, Java,/JavaScript, Python, MYSQL, query language, as well as database development and management. Students also program mobile iOS and Android apps. Second year students learn higher-level and explore more advanced programing and game development concepts. Students may be eligible to earn college credit.

### CULINARY ARTS 1 & 2 (2 Credits Each) (VPA) (MRC) (Offered at Career Prep Center)

These courses prepare students in the areas of food service, food preparation and hospitality. Students will gain knowledge and experience in all aspects of the culinary industry, including cooking techniques, baking, catering, and full restaurant services. Students are trained in ServSafe® and upon successful completion, receive a training certificate. Students may be eligible to earn college credit.

### CYBERSECURITY 1 (1 Credit) (VPA) (Offered at Warren Mott, Sterling & Cousino)

This course provides students with the basics in the field of cybersecurity which includes learning how to be safe online and understanding common threats, attacks and vulnerabilities. Students will learn how to protect and secure personal, organizational, and national information. Students also learn how to protect their data and their online privacy. As part of the course, students will connect with the Global Cisco Networking Academy community.

### CYBERSECURITY 2 (1 Credit) (VPA) (MRC) (Offered at Warren Mott, Sterling & Cousino)

This course advances students foundational Cybersecurity skills and teaches them additional skills required to administer, analyze, and secure applications, networks, and various devices. Students engage and practice concepts that include cyber threats, attacks, and vulnerabilities, while exploring technology and tools. Students analyze and detect identity and access management ricks, as well as examining cryptography and public key management. Students have the opportunity to earn various industry certifications, such as Microsoft MTA, Linux +, NET+, SECURITY+, CISSP, CCNA, CEH, and Cisco Cyber Essentials. Students may be eligible to earn college credit.

### DENTAL SCIENCE 1 (2 Elective Credits) (Offered at Career Prep Center)

These courses provide students foundational skills of Dental Science, including basic dental vocabulary, and identification of basic dental tools. Students learn about dental related careers such as Dental Hygienist, Dental Assistant and Dental Laboratory Technician. Students also learn basic Anatomy & Physiology as it relates to dental science, which includes body systems, including the skeletal system, muscular system, nervous system, nutrition and digestion.



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### DENTAL SCIENCE 2 EXPLORATIONS (2 Credits) (MRC)

(Offered at Career Prep Center)

This course advances students foundational skills of Dental Science and prepares students with planning, organizing and researching careers in the Dental Science industry. Students learn about all aspects of the Dental profession, including the various office and clinical responsibilities. Students learn more advanced Dental Science vocabulary and are exposed to specialties in the dental related field such as Orthodontics, Periodontics and Endodontics. Students also learn more in-depth knowledge of dental related careers such as Hygienist, Dental Assistant and Dental Laboratory Technician. Second year students may have the opportunity to visit and/or work in a dental office. Students may be eligible to earn college credit.

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### EMERGENCY MEDICAL TECH (EMT) (2 Credits) (MRC)

(Offered at Career Prep Center)

This course focuses on care and treatment of critically ill and/or injured persons in an emergency setting. Upon successful completion of the course, students who are 18 years old have the option to complete unpaid clinical hours after school and may be eligible to take the National Registry Exam for state licensure.

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### GLOBAL FINANCIAL CITIZENSHIP (1 Credit) (MCR) (VPA)

(Offered at Warren Mott, Sterling & Cousino)

This course is designed to teach real world applications and increase financial literacy. The topics that students will focus on are employability in a global economy, career development, budgeting, money and credit management. Students will develop skills in pursuing career choices and prepare to be knowledgeable consumers. Other topics covered include college planning, saving and investing, as well as consumer rights and responsibilities. Students participate in a Capstone project centered around successful management of a virtual business, while learning how to be a global financial citizen. Students may be eligible to earn college credit.

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### HEALTH SCIENCE 1 (2 Elective Credits)

(Offered at Career Prep Center)

This course provides students foundational skills of Health Science exposing them to various careers in the healthcare industry. Students have the opportunity to tour healthcare facilities, such as St. John Macomb-Oakland Hospital, and job shadow professionals in various settings. Students also learn basic Medical Anatomy & Physiology, which includes body systems, including the skeletal system, muscular system, nervous system, cardiovascular system, respiratory system, reproductive system and nutrition and digestion.

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### HEALTH SCIENCE 2 EXPLORATIONS (2 Credits) (MRC)

(Offered at Career Prep Center)

This course advances students foundational skills of Health Science. Students learning about specialties in the field of Health Science such as Sports Medicine, Physical Therapy, Radiology Technician, EKG Technician, Veterinary Science, Ophthalmology, Clinical Lab Technician, Medical Office Assistant, and Pharmacology. Students also participate in various classroom modules relating to the healthcare industry. Students may be eligible to earn college credit.



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### HEALTH SCIENCE 2 HOSPITAL INTERNSHIP (2 Credits) (MRC)

(Offered at Career Prep Center)

This course advances the foundational skills students learn after successfully completing Health Science 1. After application and admission into the Health Science Internship Program, selected second year students spend three days per week working with patients at St. John Macomb-Oakland Hospital. Students participate in exciting year-long team-building exercises in class, as well as learning more in-depth knowledge of CPR, Gerontology, Medical Math as well as industry specific safety. Students engage in hands-on activities and work skills gained from the hospital experience, which allows students to become productive members of a healthcare team. Students may be eligible to earn college credit.

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### MARKETING 1 & ENTREPRENEURSHIP (2 Credits) (VPA)

(Offered at Career Prep Center)

These courses provide students a foundation of the principles and concepts of marketing, as well as retail management. Students will learn about product promotion, planning, budgeting, and the nature and scope of sales. In Entrepreneurship second semester, students focus on planning, owning and running a small business, including the legal requirements.

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### MARKETING 2 MANAGEMENT (2 Credits) (VPA) (MRC)

(Offered at Career Prep Center)

This course advances students foundational skills of the general principles and concepts of marketing, and exposes them to more advanced topics including employability skills, sales and management, inventory, marketing research, finance and ownership. Students develop the skills necessary to become upwardly mobile and explore career goals, including the legal requirements, which are required to start their own business. Students may be eligible to earn college credit.

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### METAL TECH 1 & 2 (2 Credits Each) (VPA) (MRC)

(Offered at Career Prep Center)

These courses provide students the opportunity to develop a thorough understanding of metal forming technology through precision metal machining and arc welding processes. Students advance in life training through applied math, technical communication, employability skills and teamwork. Technical skills are presented in precision measuring, blueprint reading, safety, and torch cutting. Students become proficient in various welding processes such as MIG, TIG, gas and other arc welding processes. Other essential industrial and manufacturing skills taught are fabrication, manual lathe, CNC machining, surface grinding, manual milling, troubleshooting and problem solving. Students may be eligible to earn college credit.

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### PRE-ENGINEERING & COMPUTER-AIDED DESIGN (CAD) 1 & 2 (2 Credits Each) (VPA) (MRC) (Offered at Career Prep Center)

These courses provide students fundamental skills of design and engineering through the creation of drawings and 3D geometry using AutoCAD and Solid Works, and see their designs come to life through the use of 3D printing. Students are introduced to the field of design and engineering through hands-on projects and competitions. Second year students advance their skills and participate in real-world learning through innovative engineering projects and experiments and product development, including aerospace and aeronautics, fluid dynamics, product rendering, development, and packaging. Students may be eligible to earn college credit.



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### PRE-ENGINEERING & COMPUTER-AIDED DESIGN AVIATION (CAD) 3 (2 Credits) (VPA) (MRC) (Offered at Career Prep Center)

This course exposes students to the world of aviation science through participation in AeroScholars – the country’s premiere online aviation science curriculum for high school students. The program is comprised of educational videos, 3D animations, interactive questions and other multimedia learning tools, as well as learning how to use UG, NX, CREO Parametric and SolidWorks. Upon successful completion of the program, students will have completed the first step toward earning a pilots license. Students may be eligible to earn college credit.

### RECREATIONAL VEHICLE REPAIR (1 Credit) (MRC)

(Offered at Cousino)

This course prepares students to service and repair two and four cycle gasoline engines and controls on motorcycles, snowmobiles, outboard motors, chain saws, ATVs, various types of lawn equipment and personal watercraft. This course is project driven and designed to allow students the opportunity to work and learn at the same time. Students’ classroom and shop experience in this course can provide them an excellent opportunity to secure an entry-level position in the field of recreational vehicle repair. Students may be eligible to earn college credit.

### RADIO BROADCASTING 1 & ADVANCED RADIO BROADCASTING 2 & 3 (1 Credit Each) (VPA) (Offered at Cousino)

These courses expose students an overview of the broadcasting industry, which includes the area of radio. Students engage in projects and assignments in the areas of announcing, producing, marketing and news writing. These courses provide “hands-on” experiences in the exciting field of radio broadcasting. Advanced students are responsible for weekly radio shows and the operation of the station’s various departments. Students may be eligible to earn college credit.

### TV BROADCASTING 1 & ADVANCED TELEVISION BROADCASTING 2 & 3 (1 Credit Each) (VPA) (Offered at Cousino)

These courses expose students an overview of the broadcasting industry, which includes the area of television. Students engage in projects and assignments in the areas of filming, producing, marketing and safety. These courses provide “hands-on” experiences in the exciting field of television broadcasting. Advanced students are responsible for regular television programming and the operation of the station’s various departments. Students may be eligible to earn college credit.

### GRAPHIC DESIGN INTRO & ADVANCED (2 Credits Each) (VPA) (MRC)

(Offered at Career Prep Center)

These courses provide students the fundamentals of graphic design. Students learn to use programs such as Adobe Illustrator, Photoshop and InDesign. Students also learn computer animation, bindery work as well as how to use a printing press to print vinyl graphics. Second year students complete more advanced projects and work on preparing an online portfolio for college. Students may be eligible to earn college credit.



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### WEB DESIGN BEGINNER & ADVANCED (1 Credit Each) (VPA)

(Offered at Warren Mott, Sterling & Cousino)

These courses introduce students to HTML, XHTML, Dreamweaver, Photoshop and Flash through the Adobe Premium Design Suite or Macromedia Studio 8. Students design, create and maintain the school website for the community. Students also use an online learning system for lectures, notes, exercises, discussions, and assessments, with online help and email available. Advanced students receive more in-depth training in HTML, JavaScript and Flash. Students may be eligible to earn college credit.

MRC: Math Related Credit. Students can earn a fourth year math credit toward their graduation requirements.  
VPA: Visual Performing Arts. This fulfills a student's VPA credit needed for graduation.