

## FY22 CEP COURSE DESCRIPTIONS



### **AUTOMOTIVE TECHNOLOGY**

**2 Years – High School and Articulated Credits  
Juniors and Seniors**

**Hononegah High School**

*Auto Tech I* is a year-long course for high school sophomores, juniors and seniors. Students will study automotive suspension/steering, brake systems, electrical/electronic systems, engine performance and vehicle services. Students will complete automotive industry theory and performance tasks for initial employment in the automotive service field or further training at the post-secondary level. Both classroom and lab activities are used to instruct students with heavy emphasis on hands-on lab activities using late model vehicles. Several field trips are taken each year, including a trip to the “New Car Show” at McCormick Place. Students can earn articulated credit from Rock Valley College for this class.

*Auto Tech II* is a year-long course designed for high school juniors and seniors. During the 1st semester students will identify and interpret electrical problems and determine necessary actions. Students will be introduced to the diagnosis and repair of starting systems, charging systems, driver information systems and electrical/electronic systems. During the 2nd semester students will identify and interpret brake system problems and determine necessary actions. Diagnosis and repair of hydraulic systems, drum brakes, disc brakes, wheel bearings, power assist units, antilock brakes and traction control will be covered. Both classroom and lab activities are used to instruct students, with heavy emphasis on lab activities using late model vehicles. Students will participate in several field trips. Students can earn articulated credit from Rock Valley College for this class.

### **COSMETOLOGY**

**Year Long Program – High School Credits/Licensure Hours  
Seniors**

**Educators of Beauty**

During the one year program at Educators of Beauty a high school student will acquire 200 hours toward their 1500 hour training to become a licensed cosmetologist. Students are provided a well-rounded education in hair, skin, and nails – beautification and care. The training will cover draping, shampooing, rinsing, scalp massage, product and hair knowledge, facials, makeup, manicures and nail disorders. It will also include texture skills like perming, hair relaxing, and hair pressing. Students also work on bettering communication skills, sales techniques and how to build clientele as they develop the entrepreneur mindset necessary to be a successful cosmetologist.

## **ENGINEERING**

**2 Years – High School Credits  
Junior and Seniors**

**Hononegah High School**

*YEAR 1 Introduction to Engineering* is a Project Lead the Way (PLTW), high school based engineering and technology, class. This course will cover the basics of all design skills including: sketching, processing and Computer Aided Design CAD using the 3-D modeling program Inventor. Students will be using computer hardware and software to complete and generate working CAD drawing. Hands on projects will include Puzzle Cube design challenge, Reverse Engineering, and a team design challenge. Math and research skills will be stressed and used on a regular basis. Course content will include documentation, research, sketching, drawing, modeling/prototyping, design principles/elements, reverse engineering, marketing, and testing. There will be a fee of up to \$15 for student project materials.

*YEAR 2 Computer Integrated Manufacturing* is a Project Lead the Way (PLTW), high school-based engineering and technology, class. CIM is a course that applies the principles of robotics and automation to Computer Aided Design (CAD). Students will use Computer Numerical Control (CNC) equipment to produce actual models of their three-dimensional designs. Fundamental concepts of robotics used in automated manufacturing, and design analysis are included. Students will also be using state of the art manual mills, lathes, and other manufacturing equipment. There will be a fee of up to \$40 (\$25 with donated aluminum) for student project materials.

*YEAR 2 Engineering Design & Development* is the capstone course for Project Lead the Way (PLTW) and will incorporate all of the knowledge gained from prior PLTW courses. This course is an engineering research course in which students will work in teams to research, design, and construct a solution to an open-ended engineering problem. The product development lifecycle and the design process will guide the team in reaching a solution to the problem. The team will present and defend the solution to a panel of outside reviewers at the end of the school year. Students will be expected to work independently with their team to reach established benchmarks. During the year the students will be required to seek out a compatible business mentor and communicate with them throughout the process. Supplies that will be needed will cost approximately \$25.

## **GRAPHIC COMMUNICATIONS**

**Year Long Program – High School Credits  
Junior and Seniors**

**Hononegah High School**

*SEMESTER 1 Introduction to Graphic Communications* is a foundational course that will give students the opportunity to explore Adobe Illustrator, InDesign, and Photoshop. Along with learning industry leading software the students will have a hands-on experience that will help them identify different career opportunities related to the graphics industry. After completing this course the students can choose a level 2 course and pursue an Adobe Certified Associate (ACA) certification for each of the adobe programs. Introduction to Graphic Communications fulfills the computer education graduation requirement.

*SEMESTER 2 Digital Design & Illustration* will provide students with an opportunity to combine the digital illustration with the world of print media. This hands-on class offers students the opportunity to use Adobe Illustrator and a variety of production and finishing equipment to explore different print output. Topics covered include: designing for an audience, design principles, image size and resolution,

vector drawing, graphic elements, layers and masks, drawing and shape tools, 3D graphics and transformation tools. Projects include: custom logos, vinyl stickers and laser engraved water bottles. Students will have the opportunity to earn an Adobe Certified Associate Illustrator certification after completing the course exam.

## **MEDICAL SCIENCE**

**Year Long Program – High School & Rock Valley College Credit  
Seniors**

**MercyHealth  
Illinois Nurse Assistant Certification**

*Medical Science* is designed for students interested in a health care career. The student spends 2 hours a day at Rockford Health Systems learning a core of knowledge and skills needed for many health care fields. Students will have the opportunity to shadow various health care professionals such as physical therapists, nurses and x-ray technicians. In addition, safety, assessment (temperature, pulse, respiration and blood pressure), patient transport, personal care techniques and other general health care skills are addressed. Students will have the opportunity to obtain Illinois Nurse Assistant Certification approved by the Illinois Department of Public Health. The following medical requirements are necessary: Hepatitis B vaccine, a two-step Mantoux tb test, a physical, influenza vaccine, and documentation of current immunization status.

## **SPORTS MEDICINE**

**2 Years – High School Credits  
Junior and Seniors**

**Winnebago High School  
American Red Cross First Aid, CPR, AED Certification**

*Health Science* is a course that exposes students to a variety of opportunities available within the health care industry such as nursing, therapy, vision and dental care, administrative services and lab technology. Students will be assisted in further development of their self-concept as it relates to careers in the health care field and the physical, emotional and attitudinal requirements to be successful. Content will include in-depth information into health occupations careers and trends, and the occupational and educational opportunities.

*Sports Medicine* is a course that will focus on the role of the health care professional in maintaining the health of the physically active. Students will be introduced to the basic principles and techniques for the prevention, recognition, treatment, and rehabilitation of common injuries and illnesses. Students may learn to measure cardiorespiratory endurance, muscular strength and endurance, flexibility, body composition, and blood pressure. Labs will cover taping and bandaging, proper use of protective padding, treatment modalities, and medical terminology, budgeting, ordering supplies as well as general operation of a training room facility. Time spent in observation of athletic team events and practices after school hours will be required.