

Mr. Krogh Technology/Engineering Education Courses

Energy and Power: A semester intro level STEM class that covers renewable and non-renewable energy with an emphasis on alternative energies and power systems. Projects include building a solar heat exchanger oven, building and running a DC electric motor and overhaul and rebuilding a small gasoline engine.

Personal Auto Care: A semester intro level car care class that includes job exploration, how to buy a car and how to care for your car. Projects include, how to buy a used car, maintenance and basic care, lubrication and basic fluid changes and tire care. **Certifications:** Students can earn up to four different Valvoline certificates: Automotive Fluids, Resume and Interviewing, Motor Oil and People Skills.

Automotive Technology 1: A yearlong class that requires Energy and Power OR Personal Auto Care as a prerequisite. This class covers tool usage and basic automotive skills along with advanced vehicle maintenance, how vehicle power systems work, basic tire and suspension repair, vehicle diagnostics, vehicle electronics and basic vehicle computer systems. Some of the projects are: Drill and tapping, solder, reading DVOM's using OBD code readers, Tire change, brake inspections, maintenance service and battery/charging system service. **Certifications:** Students can earn a Certified Automotive Information Specialist (CAIS) certificate as well as two SP2 Safety Certifications

*This is available as **college credit** through Moraine Valley Community College as dual credit for Intro to Automotive Technology AUT112. For more information on Dual Credit see below.

Automotive Technology 2: A yearlong class that requires Automotive Technology 1 as a prerequisite. This class covers advance industry safety, advanced brakes and chassis systems, vehicle electronics and vehicle diagnostics. Some of the projects include: OSHA 10-hr certificate class, disc and drum brake repair, vehicle ABS diagnostics, hydraulic system operation and regenerative/hybrid braking systems. **Certifications:** Students can earn an OSHA 10-hour certification safety certification and a Pro-Cut Rotor Machining Technician certification.

*This is available as **college credit** through Moraine Valley Community College as dual credit for Automotive Brake Systems AUT121. For more information on Dual Credit see below.

Dual Credit at MVCC Automotive Technology I and Automotive Technology II are CTE Dual Credit courses. The student can earn 4 hours of **college credit** (AUT #112 Introduction to Automotive Technology) at MVCC with a grade of B or better and 4 hours of **college credit** (AUT #121 Automotive Brake Systems) at MVCC with a grade of B or better and both Automotive Technology 1 and 2

Student eligibility and CTE Dual Credit courses subject to change based on articulation agreements with the colleges and state.