AUTOMOTIVE

ABOUT THIS AREA OF STUDY

Automotive students will acquire skills and knowledge required to perform diagnosis, service and repair of automotive systems in an automotive shop environment. The skills include, but are not limited to, working safely in the automotive shop and performing repair tasks correctly, and safely using the correct tools.

WHAT YOU WILL LEARN

Students will learn to use the proper automotive terminology to discuss systems operation, methods of diagnosis and needed repairs, prepare a written estimate of needed system repairs and estimate the related costs, and how to practice safety in the repair and service associated with electrical, hydraulic and mechanical systems. Students will also use a systematic approach to select the proper method to diagnose, repair and test automotive systems and demonstrate proficiency in the use of automotive diagnostic equipment to evaluate system performance and determine needed repairs. This degree will also meet national certification and training standards (NATEF) for automotive service excellence (ASE) testing and certification in all automotive categories.

WHERE DO YOU SEE YOURSELF?

- Automatic and manual transmission disassembly
- Diagnosis and repair or replacement of clutch assemblies
- Diagnosis
- Repair and servicing of differentials, electronic and electrical systems, suspension and steering systems, brake systems, and heating and air conditioning
- Engine performance

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BECOME A COS GIANT!

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DEGREES & CERTIFICATES OFFERED

Certificate of Achievement in Automotive Technology (Basic) - 35 units
Skill Certificate in Automotive Electrical Control - 11 units
Skill Certificate in Automotive Air Conditioning Technology - 11 units
Skill Certificate in Automotive Brake Systems - 11 units
Skill Certificate in Automotive Chassis Technology - 15 units
Skill Certificate in Automotive Emissions Technology - 11 units
Skill Certificate in Automotive Engine Technology - 11 units
Skill Certificate in Automotive Power Train Systems Technology - 15 units

SOME CLASSES YOU MIGHT TAKE

ARCH 010 Architectural Design 1
An introductory course that emphasizes design process, concept development, and creative problem solving as the means to create architectural form and space. Design projects are presented utilizing “tactile” (by hand) two and three-dimensional visual communication and scale modeling techniques. Verbal presentations in the form of critiques are also required for the purpose of communicating designs and intended concepts.

AUTO 130 Intro to Automotive Technology
AUTO 130 is the first course in the automotive program and is a prerequisite for all automotive core courses. Topics include the development of shop skills, safe working practices and the correct use of tools in an automotive shop environment.

AUTO 136 Automotive Electrical Systems
This is a study course of the theory, design and operation of the complete automotive electrical and electronic systems. Instruction and lab cover the inspection, testing and repair of the total electrical system and component parts.

AUTO 137 Automotive Air Conditioning
This is a study course in the design, theory and operation of the automotive heating and air conditioning systems. Instruction and lab covers the systems components, servicing, testing, repair and retrofit.

AUTO 138 Automotive Engine Performance
This is an advanced study course of engine performance, drive ability and diagnostics. Instruction will cover electrical and electronics systems, fuel delivery systems, computer onboard diagnostics, advanced ignition systems, emission control systems and other engine related topics.

AUTO 243 Auto Adv. Computer Controls
This is an advanced study course of engine electrical and electronic computer control systems. The instruction will cover advanced theory, design and operation of computer control and on-board diagnostics systems, advanced fuel and ignition systems, and advanced test equipment.

REQUIREMENTS
Please see our online catalog for specific requirements in this area: www.cos.edu/catalog

Visit our website at www.cos.edu/IndTech