

# 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.

## 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

**BECOME A  
COS GIANT!**

PROGRAM CONTACT:

Donal Howell

(559) 730-3788

[donalh@cos.edu](mailto:donalh@cos.edu)



Apply at [www.cos.edu/admissions](http://www.cos.edu/admissions) today!

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## DEGREES & CERTIFICATES OFFERED

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Associate of Science in Automotive  
Technology (Basic) (AS) - 60 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 Electrical  
Technology - 12 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

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## SOME CLASSES YOU MIGHT TAKE

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### **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 237 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.

Equivalent Course: AUTO 137

Prerequisites: AUTO 130 and AUTO 136 or equivalent college course with "C" or better

### **AUTO 238 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.

Equivalent Course: AUTO 138

### **AUTO 231 Automotive Engine Systems**

Instruction in theory, construction and repair of today's automotive gasoline engine. Formerly AUTO 131.

Prerequisites: AUTO 130 (may be taken concurrently) and AUTO 136 (may be taken concurrently) or equivalent college course with "C" or better

### **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.

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## REQUIREMENTS

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Please see our online catalog for specific requirements in this area: [www.cos.edu/catalog](http://www.cos.edu/catalog)