



<b>Division:</b>	Industrial Technology	<b>Area:</b>	Automotive Engineering Technology
<b>Course Number:</b>	AUTO 103	<b>Course Name:</b>	Fuel and Emission Control Systems
<b>Prerequisite:</b>	None		
<b>Corequisite:</b>	None		
<b>Hours Required:</b>	<b>Class:</b> 30	<b>Lab:</b> 60	<b>Credits:</b> 4

## Course Description/Purpose

This course covers the design theory, construction, operation and maintenance of fuel pumps, fuel injection and emission control systems. Principles of fuel distribution, manifolds and carburetors are studied. Students will develop skills in the use of diagnostic equipment to test and calibrate fuel and emission control systems.

## Major Units

- Vehicle Emissions
- Fuel Air Ratios
- Alternative Fuels
- Engine Efficiency and Performance
- Turbo and Super Charging
- Fuel Injection Systems

## Educational/Course Outcomes

Student learning will be assessed by a variety of methods, including, but not limited to, quizzes and tests, journals, essays, papers, projects, laboratory/clinical exercises and examinations, presentations, simulations, portfolios, homework assignments, and instructor observations.

**Cognitive** Each student will be expected to *Identify/Recognize* . . .

- advantages and disadvantages of alternative fuels
- the effects of turbo and super charging
- the operation of fuel injection

**Performance** Each student will be expected to *Demonstrate/Practice* . . .

- measuring vehicle emissions
- calculating fuel air ratios
- determining engine efficiency and performance

**Attitudinal** Each student will be expected to *Believe, Feel, Think* . . .

- shop safety
- importance of technical writing

AUTO103-1/04:DK:cs  
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# Outline of Instructio