

Automotive Engineering Technology



Engineering • Manufacturing • Industrial Technology

The associate of applied science degree with specialization in automotive engineering technology is structured to provide the technical knowledge and mechanical abilities necessary to work in today's growing automotive research and development industry.

Automotive engineering technicians assist engineers in design and development work. They help determine the practicality of a proposed product design change and plan and carry out tests on experimental test devices and equipment for performance, durability and efficiency. As part of the testing procedure, they record data, make computations, plot graphs, analyze results, write reports and often make recommendations for improvements to meet performance requirements. The automotive engineering technician makes use of various mechanical and electrical test instruments and gauges, including engine and chassis dynamometers, road simulators, flow benches and computer-controlled data gathering devices. The curriculum is planned to prepare the graduate to perform duties concerned with design, testing and development activities in direct support of the automotive engineer. Graduates of this program will be prepared for entry-level employment in the following areas:

- Automotive engineering technician
- Engineering technician
- Factory technical representative
- Research and development technician
- Research technician
- Sales engineer

In addition to completion of the required general education courses, students desiring the program designation on their transcript must complete the required core and specialized courses.

	Credits
Required General Education Courses	19
ENGL 101 (Written and Oral Communications) or ENGL 151 (English Composition I)	3
¹ MATH	6
POLSC 151 (Introduction to Political Science)	3
² PHY 101, 151, or CHEM 150 or 151	4
³ Social Science/Humanities Elective	3
 Required Core Courses	 36
1st Semester	
† ELEC 125 (Fundamentals of Electricity)	3
AUTO 101 (Internal Combustion Engines)	4
2nd Semester	
† AUTO 102 (Auto Electricity and Electronics)	4
AUTO 103 (Fuel and Emission Control Systems)	4

Winter or Spring Semester

AUTO 201 (Automotive Digital Electronics)	3
⁴ MDTC 160 (Mechanical Drafting and CAD I)	4

3rd Semester

AUTO 104 (Automotive Ignition Systems)	3
AUTO 107 (Automotive Chassis Units)	4

4th Semester

AUTO 105 (Automotive Transmissions)	3
AUTO 114 (Automotive Instrumentation and Testing)	4

Additional Technology Electives

6-7

(All recommended for better employment opportunities.)

AUTO 109 (Welding for Automotive Technicians)	3
MATL 101 (Industrial Materials)	3
MECH 102 (Manufacturing Processes)	4
† MECH 103 (Basic Machine Tools)	4
MECH 111 (Introduction to Fluid Power)	3

Total Degree Requirements

61-62

Certificate Program

Automotive Engineering Technology

In addition to the two-year associate degree program, Monroe County Community College offers a certificate program in automotive engineering technology. We recognize that many employers place value on a certificate which authenticates specialized educational preparation. The program concentrates upon basic core courses with skill development and job upgrading being the primary objectives. All courses taken in the certificate program are applicable toward the associate of applied science degree.

† ELEC 125 (Fundamentals of Electricity)	3
AUTO 101 (Internal Combustion Engines)	4
† AUTO 102 (Automotive Electricity and Electronics)	4
AUTO 103 (Fuel and Emission Control Systems)	4
AUTO 104 (Automotive Ignition Systems)	3
AUTO 105 (Automotive Transmissions)	3
AUTO 107 (Automotive Chassis Units)	4
AUTO 114 (Automotive Instrumentation and Testing)	4
AUTO 201 (Automotive Digital Electronics)	3
MATH (Mathematics)	4

Certificate Requirements

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† Tech Prep course. See page 14.

¹ See page 37 for specific Industrial Technology Division mathematics requirements for the associate of applied science degree.

² Automotive engineering technology students are strongly encouraged to take PHY 101.

³ See the social science/humanities alternatives listed on page 37.

⁴ Meets computer skills requirement.