

AUTOMOTIVE ENGINE PERFORMANCE TECHNICIAN - CAREER PATHWAY CERTIFICATE OF COMPLETION (CPCC)

Description

The Automotive Engine Performance Technician Career Pathway Certificate of Completion trains students to be the key troubleshooter in a vehicle's drivability problems. Students learn to identify everything from powertrain malfunctions to ignition failures using state-of-the-art computer diagnostic equipment.

The certificate prepares students for the [Automotive Service Excellence certification](#) in (A6) Automotive Electrical/Electronic Systems, (A8) Automotive Engine Performance, and (L1) Advanced Engine Performance Specialist.

Program Learning Outcomes

Upon successful completion of the certificate, students will be able to:

1. Demonstrate appropriate basic technical knowledge and practical skills necessary for employment in Automotive Technology from previous basic skills courses, plus first level electrical / electronic courses.
2. Apply Charles's Law and Boyle's Law on the study of engine performance.
3. Diagnose and repair ignition and fuel systems.
4. Perform analysis techniques working with computer controls, emission systems, and vehicle performance.
5. Diagnose and repair output devices and system actuators using oscilloscopes, digital volt / ohmmeters, and scan tools.

Entrance Requirements

Academic Entrance Requirements

Required:

- Students must complete the following five courses before enrolling in other AUT courses: AUT 101 Basic Electricity for Automotive, AUT 106 Automotive Program Orientation, AUT 107 Mechanical Systems I, AUT 110 Small Gas Engines, and AUT 115 College Success for Automotive Technology

Recommended:

- High school diploma or GED

Additional Costs (Beyond Standard Tuition/Fees and Textbooks)

Material Costs

- Automotive Service Excellence certification: up to \$450 total for all eight areas of testing
- Tools: \$1,500 to \$2,500
- Materials (coveralls, safety glasses, work jacket, safety shoes, t-shirts): \$200

Enrollment Fees

- All AUT courses AUT 260 Diesel Performance II and higher: \$200 course fee
- All AUT courses lower than AUT 260 Diesel Performance II: \$15 course fee

Course Requirements

Course	Title	Credits
Core Courses		
AUT 101	Basic Electricity for Automotive	2
AUT 102	Automotive Electric I	4
AUT 103	Automotive Electric II	2
AUT 105	Diesel Performance I	2
AUT 106	Automotive Program Orientation	1
AUT 107	Mechanical Systems I	3
AUT 110	Small Gas Engines	3
AUT 111	Computerized Engine Controls	5
AUT 115	College Success for Automotive Technology	2
AUT 205	Engine Performance I	2
AUT 206	Engine Performance II	2
Total Credits		28

Performance Standards

- Academic Requirements:
 - Students must have a 2.0 cumulative GPA to earn a COCC certificate or degree.
 - All courses in the program must be completed with a grade of C or higher.

Sample Plan

First Year		Credits
Fall		
AUT 101	Basic Electricity for Automotive	2
AUT 106	Automotive Program Orientation	1
AUT 107	Mechanical Systems I	3
AUT 110	Small Gas Engines	3
AUT 115	College Success for Automotive Technology	2
Credits		11
Winter		
AUT 102	Automotive Electric I	4
AUT 103	Automotive Electric II	2
AUT 205	Engine Performance I	2
Credits		8
Spring		
AUT 111	Computerized Engine Controls	5

AUT 206	Engine Performance II	2
Credits		7
Second Year		
Fall		
AUT 105	Diesel Performance I	2
Credits		2
Total Credits		28