

AUTOMOTIVE CONTROLLER SYSTEMS TECHNICIAN LEVEL 2 - CAREER PATHWAY CERTIFICATE OF COMPLETION (CPCC)

Description

The Automotive Controller Systems Technician Level 2 Career Pathway Certificate of Completion trains students to be the key troubleshooter of a vehicle's drivability problems. Students learn to identify everything from power train malfunctions to ignition failures using state-of-the-art computer diagnostic equipment. The certificate also trains students in testing volumetric efficiency performance as it relates to program modification, dynamo meter operation and safety, and reprogramming for performance.

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

Program Learning Outcomes

Upon successful completion of the program, 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 second level electrical / electronic courses.
2. Calculate volumetric efficiency of operational vehicles.
3. Describe vehicle performance before and after vehicle modification.
4. Perform OBD diagnostics, analyze and report findings.
5. Perform Vehicle Dynamometer Operation.
6. Describe vehicle reprogramming for performance and emissions.
7. Perform vehicle reprogramming for performance and emissions.

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 PROGRAM 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 | 5 |
| AUT 103 | Automotive Electric II | 2 |
| AUT 104 | Automotive Electric III | 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 |
| AUT 270 | Automotive Controller Systems I | 4 |
| AUT 271 | Automotive Controller Systems II | 4 |
| Total Credits | | 39 |

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 | | |
|-------------------|---|----------------|
| Fall | | Credits |
| 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 | 5 |
| AUT 103 | Automotive Electric II | 2 |

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|--|----------------------------------|-----------|
| AUT 105 | Diesel Performance I | 2 |
| AUT 205 | Engine Performance I | 2 |
| Credits | | 11 |
| Spring | | |
| AUT 104 | Automotive Electric III | 2 |
| AUT 111 | Computerized Engine Controls | 5 |
| AUT 206 | Engine Performance II | 2 |
| Credits | | 9 |
| Second Year | | |
| Fall | | |
| AUT 270 | Automotive Controller Systems I | 4 |
| Credits | | 4 |
| Winter | | |
| No program courses offered winter term | | |
| Credits | | 0 |
| Spring | | |
| AUT 271 | Automotive Controller Systems II | 4 |
| Credits | | 4 |
| Total Credits | | 39 |