

AUTOMOTIVE ENGINE PERFORMANCE, CERTIFICATE OF ACHIEVEMENT

The Certificate of Achievement in Automotive Engine Performance prepares the student for entry-level employment as a diagnostician or for beginning Smog Inspector training. Students will gain valuable hands-on experience in diagnosing and repairing automotive engine driveability problems. Fuel injection, ignition and emission systems testing, and applicable laws will also be covered. Use of precision equipment including lab scopes, engine and emission analyzers and other specialty tools is emphasized. Students are encouraged to take the Automotive Service Excellence (ASE) Exam for Engine Performance (A8) Professional Examinations. This curriculum is National Automotive Technicians Education Foundation (NATEF) approved.

| Course ID | Title | Units/ Hours |
|-------------------------------|---------------------------------------|--------------------|
| Required Core Courses: | | |
| AT R110 | Introduction to Automotive Technology | 6 |
| AT R113 | Automotive Engine Performance | 6 |
| AT R114 | Advanced Engine Performance | 6 |
| AT R115 | Automotive Electrical Systems | 6 |
| Total Units | | 24 |
| Year 1 | | |
| Fall Semester | | Units/Hours |
| AT R110 | Introduction to Automotive Technology | 6 |
| AT R115 | Automotive Electrical Systems | 6 |
| | Units/Hours | 12 |
| Spring Semester | | |
| AT R113 | Automotive Engine Performance | 6 |
| | Units/Hours | 6 |
| Year 2 | | |
| Fall Semester | | |
| AT R114 | Advanced Engine Performance | 6 |
| | Units/Hours | 6 |
| | Total Units/Hours | 24 |

Upon successful completion of this program, students will be able to:

- Prepare vehicles for engine performance systems evaluation and operation.
- Diagnose and repair or replace drivability systems and components.
- Practice environmental safety in accordance with applicable safety and environmental regulations governing the automotive industry.
- Identify and analyze online service data, written repair material and technical service bulletins to repair and service a vehicle.
- Interpret automotive electrical wiring diagrams to aid in the diagnosis and repair of automotive electrical problems related to engine performance.
- Organize and care for basic automotive tools and equipment and store safely.
- Practice skills needed for industry and state certification tests.