

ATEC 206: ENGINE PERFORMANCE III, DRIVEABILITY

An ASE/NATEF Engine Performance course covering all aspects of drivability diagnosis in modern passenger vehicles including modern fuel injection, modern ignition systems, on board computers, mechanical failures and emission failures. There is also extensive use of modern diagnostic equipment.

Course Student Learning Outcomes

1. Demonstrate the proper use of electrical test equipment to determine serviceability and repair necessary to automotive computer electrical components and systems.
2. Describe the theory of automotive computer electrical fundamentals and the application of those fundamentals.
3. Show knowledge of how an automotive computer uses electricity and Ohm's Law to process sensor inputs and outputs.
4. Identify the various computerized electrical systems, components, and component parts relating to automotive starting, charging, ignition systems, fuel systems and emission control system in OBD I and OBD II Systems.
5. List automotive fuel injection types, and operation.
6. Describe engine knocks, detonation, pre-ignition, and timing.
7. List and define emissions, testing, and the causes and results thereof.
8. Perform diagnosis and repair of fuel injection components including computerized inputs and outputs.
9. Diagnose emission related problems.
10. Read with understanding in order to perform competently as an Automotive Technician.
11. Convey ideas in writing in order to perform competently as an Automotive Technician.
12. Communicate effectively to perform competently as an Automotive Technician.
13. Use math to solve problems and communicate to fulfill responsibilities of an Automotive Technician.
14. Understand the expectations of the workplace, the responsibilities of an Automotive Technician and the methods of securing employment within the field.
15. Demonstrate the ability to use technology effectively in the workplace.
16. Demonstrate professionalism in workplace appropriate dress and conduct.
17. Demonstrate the ability to work as a productive member of a team.

Credits: 6

Prerequisites: 2.0 or higher in ATEC 203 AND ATEC 205.

Program: [Automotive Technology](#)