

# ATEC 201: AUTOMOTIVE ELECTRICAL SYSTEMS I

An ASE/NATEF course designed to familiarize the student with fundamentals of DC electricity pertaining to the automotive trade. Included in the course of study will be instruction in basic electrical fundamentals, batteries, starters, charging systems, body wiring, and diagnosis of electrical components.

## Course Student Learning Outcomes

1. Identify the various electrical systems, components, and component parts relating to automotive starting, charging, and ignition systems.
2. Demonstrate the proper use of electrical test equipment to determine serviceability and repair necessary to automotive electrical components and systems.
3. Describe the theory of automotive electrical fundamentals and the application of those fundamentals regarding basic electricity, electromagnetism, and starting, charging, and ignition systems.
4. Demonstrate proper use of diagnostic aid such as wiring diagrams, flow charts and TSB's.
5. Read with understanding in order to perform competently as an Automotive Technician.
6. Convey ideas in writing in order to perform competently as an Automotive Technician.
7. Communicate effectively to perform competently as an Automotive Technician.
8. Use math to solve problems and communicate to fulfill responsibilities of an Automotive Technician.
9. Understand the expectations of the workplace, the responsibilities of an Automotive Technician and the methods of securing employment within the field.
10. Demonstrate the ability to use technology effectively in the workplace.
11. Demonstrate professionalism in workplace appropriate dress and conduct.
12. Demonstrate the ability to work as a productive member of a team.

Credits: 6

Prerequisites: 2.0 or higher in ATEC 100 or concurrent enrollment.

Program: [Automotive Technology](#)