

Autauga County Technology Center

Automotive Technology:

Course Syllabus

Revised 2024

Automotive Technology Foundations

is designed to equip students with basic knowledge and skills regarding safety, engine repair, automatic transmissions, and manual drive trains. A major focus of this course is system and component operations. Standards are designed to equip students to diagnose and repair engine performance related systems. Because it is the foundation for all other automotive technology courses, Automotive Technology Foundations is a prerequisite or corequisite for Level I courses

Automotive Brake, Suspension, and Steering Repair I & II

Automotive Brake, Suspension, and Steering Repair is designed to equip students with service knowledge and skills regarding diagnosis and repair of automotive brake, steering, and suspension systems

Automotive Engine Performance I & II

Automotive Engine Performance is designed to equip students with service knowledge and skills regarding safety, engines, and engine performance. Standards are designed to equip students to diagnose and repair systems related to engine performance.

Automotive Electrical Components I & II

Automotive Electrical Components is designed to equip students with service knowledge and skills regarding safety, electrical, and electronics systems. Standards are designed to equip students to diagnose and repair electrical systems related to engine performance.

These courses incorporate standards that address personal and environmental safety practices associated with clothing and eye protection, hand tools, power equipment, ventilation, and the handling, storage, and disposal of chemicals and materials in accordance with local, state, and federal safety and environmental regulations. Content standards are written to meet Automotive Service Excellence (ASE) Education Foundation requirements, which also specify task lists, program hours, and safety standards

Instructional Materials Used

Textbook: *Fundamentals of Automotive Technology: Principles and Practice* by Jones and Bartlett Learning

Research Software: AllData,

Training Software: iCEV, Electude, AllData, S/p2, Hyundai LMS, CDX, Ford ACE

Grading

Grading Scale:

A=100-90

B=89-80

C=79-70

D=69-60

F=59-0

Procedures For Make-Up Work

A student will be able to make up any work not completed, provided the student has an excused absence for the missing assignments. Excused absences must be approved by the instructor following ACBOE policy. SEE Policies at ACBOE.net

TASK LIST INFORMATION An essential element of any curriculum or training program is a valid task list. Automobile technician instructors need a well-developed task list that serves as a solid base for course of study outlines and facilitates communication and articulation of their training programs with other institutions in the region. It is a policy that the task list developed by the National Institute for Automotive Service Excellence (ASE) serves as the basis for the ASE Education Foundation task list. Panels of technical service experts from the automotive service industry and career technical education are called upon to develop and validate the task lists. The ASE Entry-Level Certification tests are based on the ASE Education Foundation task lists. These tests can provide the student with their first industry-recognized certification through ASE. Additional information on the development of the task list can be found in the Task List section. All tasks have a Priority designation. The Program Standards recognize that program content requirements vary by program type and regional employment needs. Therefore, flexibility has been built into the task list by assigning each task a priority number. The priority number simply indicates the minimum percentage of tasks that a program must include in their curriculum in order to be accredited.

See Task List for Program Standards

General Rules

- Students will report to class on time and be in his/her assigned seat
- Students will act in a safe manner at all times
- Students will respect others and their property at all times
- Students will use computers in an appropriate manner
- Students will use appropriate language at all times
- Students will not enter shop without instructor's permission
- No food or drink in the shop
- Do not leave class early
- No talking while instructor is talking
- No sitting in or on shop vehicles (without permission)
- Use all tools and equipment in an appropriate manner
- If you break a tool due to **improper** use, disciplinary action may follow
- No horseplay in classroom or shop

Automotive Technology Shop Safety Rules/Procedures

1. Safety glasses must be worn **AT ALL TIMES** while working in the shop.
2. No running or horseplay in the shop.

3. Report all accidents to instructor immediately regardless of how minor they are.
4. Drive in and out of stalls slowly and always honk horn before backing out of the stall.
5. Make sure the vehicle's brakes are functioning before moving in/out of shop. If the brakes are not functioning, the vehicle must be pushed into the shop.
6. Use the shop exhaust system while vehicle are running inside the shop.
7. Do not work on any engines when "hanging" on an engine hoist. Engines must be on stands to work on.
8. Do not work on a car that is supported by floor jack. Use safety jack stands.
9. Do no block doors, electrical panels, passageways, or fire extinguishers.
10. Students must be properly dressed at all times while in the shop. No loose clothing (this includes "sagging" pants) or open-toed shoes (sandals, flip-flops, crocs, etc.).
11. Rings, watches, and other jewelry must be removed before performing any hands-on work.
12. Clean up all spills immediately.
13. Put dirty rags in approved container.
14. Do not used compressed air to clean off your clothes.
15. Report broken tools or equipment at once.
16. Do not use chrome sockets on impact wrenches.
17. No eating or drinking in the shop or in vehicles.
18. Make sure hands and clothing are clean before entering any vehicle.
19. Shop privileges are open only to students currently enrolled in the automotive program.
20. Only the instructor or students enrolled in the automotive program may drive a vehicle in or out of the shop.
21. All class periods begin in the classroom. Shop assignments, as well as any other special instructions, will be given in the classroom.
22. Get permission and proper instruction from the instructor before using any hoist, lift, or jack.
23. Use proper lift points when lifting a vehicle. If unsure, ask the instructor.
24. Always engage the locks on vehicle lifts before working under a vehicle.
25. Only the person working under the vehicle can disengage the locks on the lift.
26. When working under the hood with engine running, be aware of rotating parts. Students with long hair must contain hair in a safe manner.
27. Any special tools/equipment must be signed out from the tool room and signed back in before cleanup begins.
28. Always use the right tool for the right job.
29. On days where shop work is performed, ALL students must go to the shop and remain in the shop until it is time to return to the class.
30. There will be no standing around outside of shop in the parking lot.