



## Automotive Service Technology

## Career Competition

**Career Cluster:** Transportation, Distribution and Logistics

**State Qualifying Exam:** No

**National Contest:** Yes

**Participation:** Individual

### Competition Description

Competitors demonstrate their ability to perform jobs and skills based on the task list outlined by the National Institute for Automotive Service Excellence and the National Automotive Technicians Education Foundation.

### Tasks To Be Evaluated

1. Basic electrical circuit be able to wire a basic series circuit and parallel and use of multimeter
2. Electrical testing of injector circuit and ignition coil use of wiring diagram and multimeter
3. Lighting circuit board
4. Advanced electrical circuit diagnosis using multimeter
5. Scanner be able to use scanner to retrieve data from a vehicle
6. MSDS be able to answer question with info given and sample chemicals
7. Interview station be able to answer question on a interview
8. Safety inspection be able to do a safety inspection on a vehicle and test battery
9. Alignment station be able to identify parts and interpret readings from alignment machine
10. Balance station basic understanding of tires and balancing
11. Knowledge of A/C systems and controls auto temp and manual
12. Disc brake disassembly and reassembly and measurements will be taken
13. ALLDATA look up car info
14. Pico Oscilloscope usage
15. Measurements be able to use a ruler, micrometer, dial gauge, feeler gauge torque wrench and other measuring tools
16. ASE type questions written
17. Components I.D. various auto parts to be identified
18. Automatic Transmission clutch pack
19. Atech Interactive computer program on relays
20. Drive Belts Installing on a trainer and inspection
21. Manual transmission parts & gear ratios test
22. Be able to answer safety questions from CCARE safety site in handout.
23. Soldering wires and terminal crimping on wires
24. Safety and general knowledge for EV trainer
25. Be able to replace timing chain

### Clothing Requirement

#### National Requirement:

**Class D:** Competition Specific: Blue Attire

- Official SkillsUSA light blue work shirt
- Navy pants
- Black, brown, or tan leather work safety shoes (with protective toe cap).

#### State Requirement:

National Requirement OR

- Light blue work shirt
- Work pants of any kind are acceptable dress (no jeans with holes)
- Black, brown, or tan leather work safety shoes (with protective toe cap).
- Any embroidered names or school patches must be covered if applicable.

### Provided by Competitor

- Competitors will need to create a one-page resume

### Provided by Technical Committee

- All tools needed for competition

### Additional Resources

To prepare for the safety test, please review the following pages. Click On to access

Illinois SkillsUSA Competition

Safety

Test Preparation Site

Website navigation and usage tutorial for  
2025 AST and MLR Competition contestants

eLearning