

Automotive Service Technology Certificate

Program Description

The Certificate program in Automotive Service Technology (AST) is a competency-based program designed to offer entry level training sufficient for employee success in automotive technician positions. Skills acquired in this program also apply directly to occupational areas including diesel mechanics, small engine repair, generator repair, marine engine service, fleet service, repair service order writing, and entry level automotive service management.

Graduates of the AST Certificate program demonstrate the foundational skill and knowledge to pursue further study in power plant mechanics, marine/diesel repair and automotive engineering in the automotive manufacturing industry.

Two 'tracks' exist within the program. Students completing the General Service Technician Track offer future employers preparatory background in four primary areas of automotive service technology (brakes, electrical/electronic systems, engine performance, and suspension/steering) and are prepared to pass the National Automotive Technicians Education Foundation (NATEF) Certification Examination in those areas. Upon passage, and after one year of automotive industry work experience, they are eligible to receive NATEF designation as a General Service Technician.

The second option within the Certificate program is the Master Service Technician track, where graduates receive preparatory background in the four above-mentioned automotive areas as well as four additional areas (automatic transmission/transaxle, engine repair, heating/air conditioning, and manual drive trains/axles). These graduates are prepared to pass the National Automotive Technicians Education Foundation (NATEF) Certification Examination in all eight examination areas offered, and upon passage may pursue recognition from ASE as a Master Service Technician.

Program Student Learning Outcomes (SLOs):

1. Identify the purposes and proper functioning of the core components of an automotive engine.
2. Perform a cylinder compression cranking test.
3. Demonstrate the proper use of a digital multimeter (DMM) during diagnosis of electrical circuit problems.
4. Diagnose, adjust, repair, or replace automotive components.

General Service Technician Track		
Technical Requirements		
Course #	Course Name	Credits
AST100	Introduction to Automotive Service	3
AST140	Suspension and Steering	3
AST150	Brakes	3
AST160	Electrical/Electronic Systems	3
AST180A	Engine Performance I	3
AST180B	Engine Performance II	3
AST240	Theory/Practicum: Suspension & Steering	2
AST250	Theory/Practicum: Brakes	2
AST260	Theory/Practicum: Engine Performance	4
AST280	Theory/Practicum: Electrical/Electronic	5
Certificate Total		31

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Master Service Technician Track		
Technical Requirements		
Course #	Course Name	Credits
AST100	Introduction to Automotive Service	3
AST110	Engine Repair	3
AST120	Automatic Transmission and Transaxle	3
AST130	Manual Drive Train and Axles	3
AST140	Suspension and Steering	3
AST150	Brakes	3
AST160	Electrical/Electronic Systems	3
AST170	Heating and Air Conditioning	3
AST180A	Engine Performance I	3
AST180B	Engine Performance II	3
AST210	Theory/Practicum: Engine Repair	3
AST220	Automotive Transmission and Transaxle II	3
AST230	Theory/Practicum: Manual Drive Train and Axles	2
AST240	Theory/Practicum: Suspension & Steering	2
AST250	Theory/Practicum: Brakes	2
AST260	Theory/Practicum: Engine Performance	4
AST270	Theory/Practicum: Heating and Air Conditioning	2
AST280	Theory/Practicum: Electrical/Electronic	5
Certificate Total		53