



## INDUSTRY CERTIFICATIONS

### Hybrid Electric Vehicle Technician

**Total Credit Hours:** 34

**About** Hybrid Electric Vehicle Technician

This option provides an overview of the purpose of hybrid technology with an emphasis on safe operating practices when servicing both hybrid and non-hybrid systems. The Hybrid Electric Vehicle Technician Track comprises of theory and practicum. During labs, you will partake in demonstrations of disconnect procedures, safely testing high voltage systems, accessing scan tool data, conducting examinations of sub systems, and diagnostics of both electric and non-electric drive systems.

#### [REQUIREMENTS FOR INDUSTRY CERTIFICATION](#)

##### Hybrid Electric Vehicle Technician Track

##### Major Requirements

| Course  | Course Name                                                          | Credits |
|---------|----------------------------------------------------------------------|---------|
| AST100  | Introduction to Automotive Service Technology                        | 3       |
| AST110  | Engine Repair                                                        | 3       |
| AST113  | Hybrid Engines and Motor/Generators                                  | 4       |
| AST120  | Automatic Transmission & Transaxle                                   | 3       |
| AST123  | Hybrid Electric Vehicle Energy Management, Transaxles, and Batteries | 4       |
| AST133  | Hybrid Electric Vehicle Belted Alternator Starter (BAS)              | 4       |
| AST160  | Electrical and Electronic Systems                                    | 3       |
| AST180A | Engine Performance I                                                 | 3       |
| AST180B | Engine Performance II                                                | 3       |

AST260

Theory/Practicum: Electrical and  
Electronic Systems

4

**Certificate Total**

2024-2025 College Catalog

## [Student Learning Outcomes](#)

1. Perform high voltage disconnect procedure and reconnect/enable high voltage system.
2. Describe the regenerative braking process.
3. Diagnose problems caused by damaged or failed harnesses, connectors, and terminals.
4. Explain the concept of an electric transaxle system.

You may also be interested in these related Programs...



[1]

## [Certificate in Medium/Heavy Truck Diesel Technology](#) [1]

The Medium/Heavy Truck Diesel Technology program prepares graduates to work in the automotive field with special emphasis in diesel service. Graduates will be able to troubleshoot, maintain, and repair various types of diesel engines, trucks, boats, and other heavy equipment. Students will obtain knowledge and skills in Medium/Heavy Truck in a variety of areas to include: diesel engines; drive trains; brake systems; suspension and steering; heating, ventilation, air conditioning; hydraulics; electrical/electronic systems; and preventive

maintenance.

[+ More Info](#) [1]



[2]

### [Certificate in Automotive Service Technology - Master Service Technician Track](#) [2]

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.

[+ More Info](#) [2]



[3]

### [Certificate in Automotive Service Technology - General Service Technician Track](#) [3]

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.

[+ More Info](#) [3]