



# MASTER AUTOMOTIVE SERVICE TECHNICIAN

## Master Automotive Service Technician Certification

Inspect, maintain, and repair cars and light trucks

Automotive curriculum includes an off site internship and an ASE student certification. Alongside these, the program also prepares students to obtain many industry based certifications, including Ford Web based Training, Hunter Alignment, SnapOn Certification, Subaru Web Based Training, and Sp/2 Safety Certificates. This program will help students learn a variety of skills used in the industry, including the following:

- Diagnostic testing
- Repairing engines, air systems and brakes
- Testing electrical systems
- Aligning suspension systems
- Transmission maintenance and repair

### Prerequisites:

- Students must be 18 old at the end of year 2
- Students must have a valid drivers license at the end of year 2

### Suggested educational levels:

- English literacy (reading, writing, speaking, and listening)
- Understanding of basic algebra

### Suggested physical abilities:

- Capable of lifting 30 pounds
- Capable of sustained activity for 5 hours at a time

### Class Hours:

- Morning: 7:50am - 10:40am Mon.- Fri.
- Afternoon: 12:05pm - 2:55pm Mon.- Fri.
- Evening: 5:30pm - 9:30pm Mon.-Thu.
- Program is 4 semesters in length, with start dates in Fall.

### Tuition and Credit Hour Calculation

#### Semester 1

$$\begin{array}{r} \$1,560.00 \text{ (Tuition)} \\ + \$170.00 \text{ (Credit Hour Fee)} \\ \hline \$1,730.00 \end{array}$$

#### Semester 3

$$\begin{array}{r} \$2,080.00 \text{ (Tuition)} \\ + \$210.00 \text{ (Credit Hour Fee)} \\ \hline \$2,290.00 \end{array}$$

#### Semester 2

$$\begin{array}{r} \$1,690.00 \text{ (Tuition)} \\ + \$180.00 \text{ (Credit Hour Fee)} \\ \hline \$1,870.00 \end{array}$$

#### Semester 4

$$\begin{array}{r} \$2,210.00 \text{ (Tuition)} \\ + \$220.00 \text{ (Credit Hour Fee)} \\ \hline \$2,430.00 \end{array}$$

*Based on Colorado Resident In-State Tuition*

### Estimated Program Costs *(to be paid at Picken's payment office)*

#### Tuition and Credit Hour Fees:

**Semester 1:** \$1,730.00

**Semester 2:** \$1,870.00

**Semester 3:** \$2,290.00

**Semester 4:** \$2,430.00

#### Required On Campus Costs:

**Program Charges:** \$500.00 (each semester)

**Student ID:** \$10.00 (each year)

**CTSO Charge:** \$20.00 (each year)

**Safety Glasses:** \$5.00 (+tax)

**ASE Testing:** \$50.00 (semester 1 & 3)

#### Estimated Total:

**Master Automotive Service Technician Certificate:** \$10,485.00 (+tax)

### Additional Relevant Costs *(estimated)*

#### Required Off Campus Costs:

**Shop Shirt:** \$35.00 (+tax)

**Credits:**  
**58**

**Length:**  
**2 years**

**Cost:**  
**\$10,485**



Cost and information revised **March 2023**  
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# MASTER AUTOMOTIVE SERVICE TECHNICIAN

## Courses required for this certificate: Semester 1

### ASE 1001 Auto Shop Orientation

Provides students with safety instruction in the shop and on the Automobile. Emphasis is placed on the proper use and care of test equipment, precision measuring and machining equipment, gaskets, adhesives, tubing, wiring, jacks, presses, and cleaning equipment and techniques.

### ASE 1020 Basic Automotive Electricity

Introduces automotive electricity and includes basic electrical theory, circuit designs, and wiring methods. Focuses on multi-meter usage and wiring diagrams.

### ASE 1022 Automotive Electric Safety Systems

Teaches the student to identify operation of vehicle lighting systems, Supplemental Inflatable Restraints (SIR), windshield wiper, driver warning systems and vehicle accessories.

### ASE 1023 Starting and Charging Systems

Covers the operation, testing and servicing of vehicle battery, starting and charging systems. Includes voltage testing of starter and generator, load testing and maintenance of a battery.

### ASE 1030 General Engine Diagnosis

Focuses on lecture and related laboratory experiences in the diagnosis and necessary corrective actions of automotive engine performance factors.

### ASE 1034 Automotive Fuel and Emission Systems I

Focuses on lecture and laboratory experiences in the diagnosis and repair of automotive fuel emission control systems, filter systems and spark plugs. Course also includes maintenance to diesel (DEF) systems.

### ASE 1062 Auto Engine Service

Covers engine sealing requirements and repair procedures; engine fasteners, bolt torque and repair of fasteners. Course will also cover cooling system and basic engine maintenance.

## Courses required for this certificate: Semester 2

### ASE 1002 Intro to the Automotive Shop

Prepares the incoming automotive student to work in the shop safely and gain familiarity with the shop and common equipment.

### ASE 1010 Brakes I

Covers basic operation of automotive braking systems. Includes operation, diagnosis, and basic repair of disc brakes, drum brakes, and basic hydraulic systems.

### ASE 1011 Auto Brakes II

Teaches skills to perform service checks and procedures to automotive foundation braking system and to identify components and types of ABS and traction control systems.

### ASE 1040 Steering and Suspension I

Focuses on lecture and related experiences in the diagnosis and service of suspensions and steering systems and their components.

### ASE 1050 Man Drv Trn & Axle

Studies the operating principles and repair procedures relating to axle-shaft and universal joints.

### ASE 2050 Auto Trans/Transaxle Service

Emphasizes lecture and related experiences in the diagnosis and service of electronic suspensions and steering systems and their components.

### ASE 2064 Intro to HVAC Systems

Covers basic operation of the Heating and Air Conditioning components.

## Semester 3 & 4 continued on the next page

### MASTER AUTOMOTIVE SERVICE TECHNICIAN CERTIFICATE

**Certificate Total:** Clock Hours: 1140 Credit Hours: 58

**Certificate Length:** 4 semesters

Additional costs may apply. All books, kits & supply costs are estimated. Cost, information, and classes are subject to change. Statistics present are based on the US Bureau of Labor Statistics. This certificate is eligible for Financial Aid. You may begin the Financial Aid process by completing your Free Application for Federal Aid (FAFSA) at [www.FAFSA.ed.gov](http://www.FAFSA.ed.gov). If you have further questions, please call (303)344-4910.

# MASTER AUTOMOTIVE SERVICE TECHNNICIAN

## Courses required for this certificate: Semester 3

### ASE 1041 Suspension and Steering II

Covers design, diagnosis, inspection, and service of suspension and steering systems used on light trucks and automobiles. Course includes power steering and SRS service.

### ASE 2010 Auto PWR/ABS Brake Systems

Covers the operation and theory of the modern automotive braking systems. Includes operation, diagnosis, service, and repair of the anti-lock braking systems, power assist units and machine operations of todays automobile.

### ASE 2021 Automotive/Diesel Body Electrical

Provides a comprehensive study of the theory, operation, diagnosis, and repair of vehicle accessories.

### ASE 2040 Suspension and Steering III

Covers operation of steering and power steering systems. It will also include different alignment types and procedures.

### ASE 2065 HVAC Systems

Emphasizes lecture and related laboratory experiences in the diagnosis and service of vehicle heating and air conditioning systems and their components.

## Courses required for this certificate: Semester 4

### ASE 1051 Manual Transmission/Transaxles & Clutches

Focuses on lecture and related laboratory experiences in the diagnosis and repair of automotive manual transmissions, transaxles and clutches and related components.

### ASE 1052 Man Trans/Transaxles/Clutch II

Focuses on lecture and related laboratory experiences in the diagnosis and repair of automotive manual transmissions, transaxles and clutches and related components.

### ASE 1060 Auto Engine Repair

Covers engine sealing requirements and repair procedures; engine fasteners, bolt torque and repair of fasteners. Course will also cover cooling system and basic engine maintenance.

### ASE 1070 Laboratory Experience I

Continues to build upon the principles that are expected to be understood by students.

### ASE 2031 Automotive Computers and Ignition Systems

Focuses on lecture and laboratory experiences in the inspection and testing of typical computerized engine control systems.

### ASE 2033 Auto Fuel Injection/Emissions

Focuses on lecture and related laboratory experiences in the diagnosis and repair of electronic fuel injection systems and modern exhaust systems.

### ASE 2051 Auto Trans/Transaxle Repair

Covers diagnosis, principles of hydraulics, principles of electronic components, power flow, theory of operation, remove and re-install transmission/transaxle, and replacement of components.

### ASE 2085 Independent Study

Meets the individual needs of students. Students engage in intensive study or research under the direction of a qualified instructor.

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