



# Pittsburg State University

## Department of

# ***AUTOMOTIVE TECHNOLOGY***

Degree: **Certificate of Applied Science**  
 Major: **Automotive Service Technology**

As of Fall 2019

### First Year

**First Semester**

AST 101: Engine Repair .....	3
AST 102: Brakes .....	3
AST 122: Auto Mechanics General Laboratory I .....	5
AST 264 Special Topics ASE Test Prep 1 .....	1

**Second Semester**

AST 150: Engine Performance I .....	3
AST 151: Electrical Systems I .....	3
AST 152: Auto Mechanics General Laboratory II .....	5
AST 264 Special Topics ASE Test Prep 2 .....	1

**Summer Session**

AST 160: Automatic Transmissions .....	3
AST 163: Manual Drive Train and Transaxle .....	3
AST 264 Special Topics ASE Test Prep 3 .....	1

### Second Year

**First Semester**

AST 251: Electrical Systems II .....	3
AST 252: Auto Mechanics General Laboratory III .....	5
AST 260: Engine Performance II .....	3
AST 264 Special Topics ASE Test Prep 4 .....	1

**Second Semester**

AST 255: Automotive Heating and Air Conditioning .....	3
AST 256: Suspension and Steering .....	3
AST 257: Auto Mechanics General Laboratory IV .....	5
or AST 299: Automotive Service Coop Internship .....	6
AST 264 Special Topics ASE Test Prep 5 .....	1

**Technical Courses**

AST 101: Engine Repair .....	3
AST 102: Brakes .....	3
AST 122: Auto Mechanics General Laboratory I .....	5
AST 150: Engine Performance I .....	3
AST 151: Electrical Systems I .....	3
AST 152: Auto Mechanics General Laboratory II .....	5
AST 160: Automatic Transmissions .....	3
AST 163: Manual Drive Train and Transaxle .....	3
AST 164: Current Topics in Automatic Transmissions .....	1
AST 251: Electrical Systems II .....	3
AST 252: Auto Mechanics General Laboratory III .....	5
AST 255: Automotive Heating and Air Conditioning .....	3
AST 256: Suspension and Steering .....	3
AST 257: Auto Mechanics General Laboratory IV .....	5
or AST 299: Automotive Service Coop Internship .....	6
AST 260: Engine Performance II .....	3

**General Education Requirements**

**Total hours required . . . . . 55-56**

NOTE: The information contained herein is intended to be used for the planning of a student's academic program and does not constitute a contract. While this guide was prepared with the latest information, courses, graduation requirements, and curricula are subject to change.

When a student attains 85 semester hours of credit (including current enrollment) the student must apply for a degree check in the Office of the Registrar (Degree Checking Section), Room 102 Russ Hall.

MINIMUM GENERAL REQUIREMENTS: Total Hours for a Certificate of Applied Science Degree with a Major in Automotive Service Technology (55-56 hours). Minimum GPA for non-education degree is 2.0 overall [2.0 in major], secondary education degree is 2.5 overall [2.75 in major], and early/late childhood/unified degree is 2.80 overall [3.0 in major]. A minimum GPA of 2.0 in any major and in residence coursework is required. General Education and all degree requirements are provided in the online catalog. Refer to individual departments for specific requirements.

## PSU Automotive Service Technology Required Tool List

Air Blow Gun (meeting OSHA requirements)  
Allen (Wrench or Socket) Set Standard (.050" - 3/8")  
Allen (Wrench or Socket) Set Metric (2mm-7mm, 10mm, 12mm)  
Battery Post Cleaner  
Battery Terminal Pliers  
Battery Terminal Puller

Chisels:  
Cape 5/16"  
Cold 3/8", 1/2"  
Chisel Holder  
Claw Type Pickup Tool

Combination Wrenches:  
Standard (1/4" - 1 1/4")  
Metric (7mm-24mm)  
Crowfoot Wrench Set (Metric)  
Crowfoot Wrench Set (Standard)  
Ear Protection  
Feeler Gauge  
(Blade Type):  
.002"-.040"  
.006mm-.070mm

Files:  
Coarse 6" and 12"  
Fine 6" and 12"  
Half Round 6" and 12"  
Round 6" and 12"  
Flare Nut (tubing) Wrenches:  
3/8"-3/4"  
10mm-17mm  
Flashlight  
Fuse Puller  
Fused Jumper Wire Set (with various adapters)  
Hack Saw

Hammers:  
16 oz. Ball Peen  
Brass Dead Blow Plastic Mallet  
Plastic Tip Rubber Mallet  
Inspection Mirror Magnetic Pickup Tool

Pliers:  
Combination 6"  
Hose Clamp  
Locking Jaw  
Needle Nose 6"  
Side Cutting  
Slip Joint (Water Pump)

Pry Bars:  
Rolling Head  
Straight

Punches:  
Center  
Brass Drift  
Pin 1/8", 3/16", 1/4", 5/16"  
Taper 3/8", 1/2", 5/8"  
Safety Glasses (meeting OSHA requirements)  
Scraper:  
Carbon 1"  
Gasket 1"

Screwdriver - Blade Type:  
Stubby  
6", 9", 12"  
Offset

Screwdriver - Phillips:  
Stubby  
#1, #2  
6" #1, #2  
12" #3  
Offset #2  
Screwdriver - Impact Driver Set

Screw Starter:  
Phillips  
Standard

Bolt/Screw Extractor Kit

Socket Set - 1/4" Drive:  
1/4" - 1/2" Standard Depth  
1/4" - 1/2" - Deep  
6mm-12mm Standard Depth  
6mm-12mm Deep  
Flex/Universal Type  
3", 6" Extensions  
Ratchet

Socket Set - 3/8" Drive:  
5/16" 3/8" Standard Depth (6 point)  
3/8" - 1/2" Deep (6 point)  
10mm-19mm Standard Depth  
3", 5", 10" Extensions  
Flexhead Ratchet  
Ratchet  
Spark Plug Sockets 3/8", 13/16"  
Speed Handle  
Universal Joint  
Flexible Socket Set 3/8" - 1/2"  
Flexible Socket Set 10mm-19mm  
Socket Set - 1/2" Drive:  
7/16" - 1 1/8" Standard Depth  
7/16" - 1 1/8" Deep  
10mm-24mm Standard Depth  
10mm-24mm Deep  
3", 6", 12" Extensions  
Flex Handle (Breaker Bar)  
Ratchet Spark Plug (Gap Tool)

Tape Measure - Standard and Metric  
Test Light (12V)  
Tire Pressure Gauge

Torque Wrench:  
3/8" Drive (10-250 lb. in.)  
3/8" Drive (5-75 lb. ft.)  
1/2" Drive (50-250 lb. ft.)  
Torx Set (screwdrivers and/or sockets):  
T-8 to T-60

Snap On meter required for meter certification  
Dial Indicator w/ Vice Grip  
Tool Chest (Must be able to roll and lock)

### **Suggested but not required on the first day of school:**

Logic Probe  
Compression Gauge  
Vacuum Gauge  
Hand Vacuum Pump  
Fuel Pressure Gauge  
Dial Calipers  
1/2 Electric Drill w/ Drill Index  
1/2 Air Impact  
3/8 Air Impact  
3/8 Air Ratchet  
Remote hose clamp pliers  
Air operated die grinder with 3m pad attachments  
Coolant Pressure Tester  
Air Operated Chisel w/ tie rod attachment  
Magnetic Tool Tray  
DVOM Inductive Clamp