

AUTOMOTIVE TECHNOLOGY

Automotive Brake Systems

Occupational Skills Award

This OSA award prepares students for Automotive Maintenance and Light repair Certificate and provides instruction on diagnosing automotive brake, ABS, and stability control systems. This OSA will advance students knowledge of multi manufacturers system operations & diagnostic skills for real world experience.

Suspension and Steering

Occupational Skills Award

The Automotive Suspension and Steering Occupational Skills Award prepares the student for real world experience. The Automotive suspension & steering OSA will provide the knowledge in Front suspension systems, rear suspension systems, Electronic steering, & Alignment processes for multi manufacture specification procedures. This will advance the knowledge of the students experience in suspension & steering systems.

Automotive Technology

Certificate and Associate of Applied Science

The Automotive Technology program is designed to prepare students for an entry-level employment in the high technology automotive service industry.

Students will gain knowledge in automotive heating and air conditioning systems, electrical/electronic systems, fuel injection, both manual and automatic transmissions/transaxles, engine performance, brake systems, steering and suspension systems, and computerized automotive control systems. Emphasis will be placed on hands-on learning in the labs to develop diagnostic and troubleshooting skills, as well as repair procedures.

Graduates of the Automotive Technology program are typically placed in dealerships, independent garages and specialty automotive repair facilities and quick service shops. Courses taken for completion of the Certificate Program can be applied toward completion of the Associate of Applied Science Degree in Automotive Technology.

Specialization: GM-ASEP (Automotive Service Educational Program)

Associate of Applied Science

What is GM-ASEP? ASEP is an educational partnership between South Texas College and General Motors Corporation. GM ASEP streamlines the path to becoming a highly trained automotive technician to less than two years. GM ASEP instructors are GM trained and in touch with the latest automotive trends. You will be learning from the best. Learn how to identify, analyze and solve complex automotive problems. Theory and practical application will come together as you spend time working on actual customer vehicles.

The curriculum reflects current GM technology. ASEP provides classroom and laboratory training that is reinforced by on-the-job experience in a GM dealership. It is a comprehensive, two-year program.

Program Learning Outcomes

Automotive Technology Certificate

1. Students will be able to apply electrical principles and interpret wiring schematics and symbols.
2. Students will be able to identify ignition systems, components, and their configurations.
3. Students will be able to diagnose and repair antilock brake systems.
4. Students will be able to diagnose and repair automatic transmissions and transaxles.

Automotive Technology Associate of Applied Science

1. Students will be able to apply electrical principles and interpret wiring schematics and symbols.
2. Students will be able to identify ignition systems, components, and their configurations.
3. Students will be able to diagnose and repair vehicle air condition system by performing an HVAC Performance Test.
4. Students will be able to diagnose and repair vehicles with the proper use of a digital multimeter.
5. Students will be able to diagnose and repair automatic transmissions and transaxles.

Automotive Maintenance and Light Repair Certificate

1. Students will be able to apply electrical principles and interpret wiring schematics and symbols.
2. Students will be able to diagnose and repair vehicle air condition system by performing an HVAC Performance Test.
3. Students will be able to diagnose and repair antilock brake systems.

Specialization: GM-ASEP (Automotive Service Educational Program), Associate of Applied Science

1. Students will be able to apply electrical principles and interpret wiring schematics and symbols.
2. Students will be able to identify ignition systems, components, and their configurations.
3. Students will be able to diagnose and repair vehicles with the proper use of a digital multimeter.
4. Students will be able to diagnose and repair automatic transmissions and transaxles.
5. Students will be able to diagnose and repair vehicle air condition system by performing an HVAC Performance Test.

Advisory Committee Members Automotive Technology

Bill Seawell, Automotive Sales, PSI
Chet Hatzold, Service Specialist, Hunter Equipment
Eduardo De Leon, Salesman, O'Reilly Auto Parts
Sergio Trevino, Territory Sales Manager, O'Reilly Auto Parts
Joe Gonzalez, Salesman, Burton Companies
Scott Vaughan, Owner, Burton Companies

GM-ASEP Technology

Adalberto Barron, Auto Technician, Bert Ogden
Bill Seawell, Automotive Sales Rep., PSI
Chris Hatzold, Service Manager, Bert Ogden

Rose Crookston, General Motors
Joko Winarto, Service and Parts Rep., GM
Lupe Salazar, Service Manager, Clark Chevrolet

Occupational Skills Award

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Certificates

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- Automotive Maintenance and Light Repair Certificate (p. 2)

Associate Degrees

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Automotive Brake Systems Occupational Skills Award

TSI Exempt

Course	Title	Credit Hours
Fall		
AUMT 1201	Introduction and Theory of Automotive Technology	2
AUMT 1407	Automotive Electrical Systems	4
AUMT 1410	Automotive Brake Systems	4
AUMT 1266	Practicum I	2
Credit Hours		12
Total Credit Hours		12

Suspension & Steering Occupational Skills Award

TSI Exempt

Course	Title	Credit Hours
Fall		
AUMT 1201	Introduction and Theory of Automotive Technology	2
AUMT 1407	Automotive Electrical Systems	4
AUMT 1416	Automotive Suspension and Steering Systems	4
AUMT 1266	Practicum I	2
Credit Hours		12
Total Credit Hours		12

Automotive Technology Certificate

Course	Title	Credit Hours
Fall		
AUMT 1201	Introduction and Theory of Automotive Technology	2
AUMT 1407	Automotive Electrical Systems	4
AUMT 1410	Automotive Brake Systems	4
AUMT 1416	Automotive Suspension and Steering Systems	4
Credit Hours		14
Spring		
AUMT 1419	Automotive Engine Repair	4

AUMT 2417	Automotive Engine Performance Analysis I	4
AUMT 2425	Automatic Transmission and Transaxle	4
Credit Hours		12
Summer		
AUMT 2313	Automotive Drive Train and Axles	3
AUMT 1345	Automotive Climate Control Systems	3
AUMT 2434	Automotive Engine Performance Analysis II	4
AUMT 1265	Practicum I	2
Credit Hours		12
Total Credit Hours		38

Automotive Maintenance and Light Repair Certificate

Course	Title	Credit Hours
Fall		
AUMT 1345	Automotive Climate Control Systems	3
AUMT 1410	Automotive Brake Systems	4
AUMT 1416	Automotive Suspension and Steering Systems	4
AUMT 1407	Automotive Electrical Systems	4
AUMT 1264	Practicum I	2
Credit Hours		17
Total Credit Hours		17

Automotive Technology Associate of Applied Science

Course	Title	Credit Hours
First Year		
Fall		
AUMT 1201	Introduction and Theory of Automotive Technology	2
AUMT 1407	Automotive Electrical Systems	4
AUMT 1410	Automotive Brake Systems	4
AUMT 1416	Automotive Suspension and Steering Systems	4
Credit Hours		14

Spring		
AUMT 1419	Automotive Engine Repair	4
AUMT 2417	Automotive Engine Performance Analysis I	4
AUMT 2425	Automatic Transmission and Transaxle	4
SPCH 1311	Introduction to Speech Communication ¹	3
Credit Hours		15
Summer		
ENGL 1301	Composition I ¹	3
Humanities Elective ¹		3
Credit Hours		6

Second Year		
Fall		
AUMT 2313	Automotive Drive Train and Axles	3
AUMT 1345	Automotive Climate Control Systems	3
AUMT 2434	Automotive Engine Performance Analysis II	4
PSYC 2301	General Psychology ¹	3
Credit Hours		13
Spring		
CSIR 1355	Industry Certifications	3
AUMT 2421	Automotive Electrical Diagnosis and Repair	4
Math and Natural Sciences Elective ¹		3

AUMT 2264	Practicum I	2
Credit Hours		12
Total Credit Hours		60

¹ Identifies courses to fulfill minimum 15 credit hour General Education requirement

Automotive Technology Specialization: GM-ASEP (Automotive Service Educational Program) Associate of Applied Science

Course	Title	Credit Hours
First Year		
Fall		
AUMT 1407	Automotive Electrical Systems	4
SPCH 1311	Introduction to Speech Communication ¹	3
AUMT 1419	Automotive Engine Repair	4
AUMT 1266	Practicum I	2
Credit Hours		13
Spring		
AUMT 2421	Automotive Electrical Diagnosis and Repair	4
AUMT 2417	Automotive Engine Performance Analysis I	4
PSYC 2301	General Psychology ¹	3
AUMT 1267	Practicum II	2
Credit Hours		13
Summer		
AUMT 1316	Automotive Suspension and Steering Systems-GM-ASEP	3
AUMT 1345	Automotive Climate Control Systems	3
Humanities Elective ¹		3
Credit Hours		9
Second Year		
Fall		
AUMT 2313	Automotive Drive Train and Axles	3
ENGL 1301	Composition I ¹	3
AUMT 1410	Automotive Brake Systems	4
AUMT 2266	Practicum III-GM ASEP	2
Credit Hours		12
Spring		
Math and Natural Sciences Elective ¹		3
AUMT 2434	Automotive Engine Performance Analysis II	4
AUMT 2425	Automatic Transmission and Transaxle	4
AUMT 2267	CAPSTONE: Practicum IV-GM ASEP	2
Credit Hours		13
Total Credit Hours		60

¹ Identifies courses to fulfill minimum 15 credit hour General Education requirement