

Automotive Mechanics (604)

Pending ICCB Approval

ASSOCIATE OF APPLIED SCIENCE

About Our Program

This program prepares students for employment in the areas of computerized engine controls, air conditioning, transmissions, alignments, brakes, control systems diagnostics and engine service.

Program Outcomes

Students who complete this program will be able to:

- Work safely in the shop environment.
- Demonstrate professionalism (work ethic, soft skills).
- Use the correct tool(s) for needed maintenance.
- Utilize problem solving skills to determine and perform basic vehicle maintenance and inspection, which includes:
 - Engine oil monitoring system reset
 - Tire pressure monitoring system diagnosis and reset
 - Anti-lock brake system diagnosis and repair
 - Vehicle fluid maintenance
- Perform vehicle safety inspections.
- Utilize diagnostic equipment to interpret system data and perform sub-system repairs
 - Powertrain control systems (engine and transmission)
 - Understanding vehicle network systems
 - Diagnosing computer and vehicle network systems
 - Electrical and electronic circuit repair
 - Heating and air conditioning systems
 - Final drive and AWD-4WD system

Nature of Work and Employment

Program graduates may find jobs repairing and servicing mechanical and electrical systems of passenger vehicles and light trucks. Job openings in the automotive field may be for general technicians or specialists in control systems diagnostics, engines, brakes, drive trains, transmissions, steering/suspension, electrical systems, tune-up/emission control, or heating and air conditioning. The outlook for employment in this occupation is excellent due to the increasing number of vehicles on the road and the growing complexity of automotive technology.

Special Considerations

Completion of this degree will provide all of the courses that a student will need to become an ASE (Automotive Service Excellence) Certified Automobile Service Technician. The program is accredited through ASEEF (Automotive Service Excellence Education Foundation). A workplace experience is encouraged and may be made available.

Program Contacts

Call Highland at 815-235-6121 for the following program contacts:

- Scott Anderson, Vice President of Business, Technology, and Community Programs
- Jim Palmer, Automotive Technology Faculty
- Kristin Stinnett, Automotive Technology Faculty
- Vicki Schulz, Student Advisor/Transfer Coordinator

First Semester 18 Credit Hours

*	AUTM	120	Fundamentals of Engines	3
*	AUTM	122	Engine Components and Construction	3
*	AUTM	124	Fundamentals of Electricity	4
*	AUTM	138	Automotive Servicing	2
*	BUSN	141	Business Communications (or COMM 101 or ENGL 121)	3
	WELD	135	Shield Arc/Oxy Welding	
		-or-		3
	WELD	130	Introduction to Welding	

Second Semester 16 Credit Hours

*	AUTM	111	Suspension and Alignment	5
*	AUTM	113	Brakes	4
*	AUTM	115	Standard Transmission and Final Drives	4
*	MATH	111	Technical Math	
		-or-		3
*	BUSN	125	Mathematics of Business or three credits from MATH 157 or above)	

Third Semester 18 Credit Hours

*	AUTM	231	Fundamentals of Electronics	3
*	AUTM	233	Fuel Systems	3
*	AUTM	235	Electronic Engine Controls	3
*	AUTM	242	Automotive Body Electronics	3
*	BUSN	225	Personal Finance	3
			General Education course with a diversity designation (see advisor)	3

Fourth Semester 16 Credit Hours

*	AUTM	237	Engine Performance	3
*	AUTM	238	Advanced Automotive Data Analysis	3
*	AUTM	240	Automatic Transmissions	4
*	AUTM	248	Automotive Heating and Air Conditioning	3
*	BUSN	124	Introduction to Small Business	3

Total Credit Hours = 68

* Course has a prerequisite. See course description.