

## 2023-2024 Academic Year

# Automotive Technology Associate in Applied Science Degree (A.A.S.)

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The **Automotive Technology** program introduces students to current automotive systems and related diagnostic and service techniques, and awards graduates an Associate in Applied Science (A.A.S.) degree. Students learn about current automotive technologies and their use in late model production vehicles. Learning occurs during traditional classroom instruction and hands-on activities performed in an automotive lab.

Students learn the latest automotive technology trends by completing an up-to-date training curriculum, which includes performing hands-on work on late model vehicles provided by vehicle manufacturers. Additionally, students develop a strong work ethic and learn professionalism while fulfilling internship requirements at their sponsoring automotive repair facility.

### PROGRAM OUTCOMES

- Diagnose, repair, and service current automotive technologies;
- Demonstrate desirable attitudes and work habits while working individually or with others;
- Obtain service repair information and procedures from online websites and electronic databases;
- Communicate effectively and professionally with customers and fellow technicians.

Mercer's Automotive program offers three unique paths of study:

• The **MOPAR Career Automotive Program** (Mopar CAP) is an A.A.S. degree program sponsored by Stellantis (formerly Fiat Chrysler Automobiles). Students enrolled in Mopar CAP earn factory technical training credits from Stellantis while taking college courses. Students complete a series of internships at a Chrysler, Dodge, Jeep, Ram, or Fiat dealership of their choosing. The goal of the MOPAR Career Automotive Program is to prepare students for a career working as a service technician at a Stellantis-affiliated new car dealership.

• The **Subaru University Program** is an A.A.S. degree program sponsored by Subaru of America. Students enrolled in Subaru University earn factory technical training credits from Subaru of America while taking college courses. Students complete a series of internships at a Subaru dealership of their choosing. The goal of the Subaru University Program is to prepare students for a career working as a service technician at a Subaru-affiliated new car dealership.

• The **Comprehensive Automotive Program** is an A.A.S. degree program where students learn theory, operation, diagnosis, and service of systems not specific to any particular vehicle manufacturer. Students complete a series of internships at an approved independent, franchise, or new car dealership repair facility of their choosing. The goal of the Comprehensive Automotive Program is to prepare students for employment at a wide variety of vehicle service and repair centers.

#### Learning Opportunities After Graduation

The college collaborates with Audi of America to offer Mercer's Automotive graduates opportunities of the Audi Education Partnership (AEP). While Mopar CAP and Subaru University students complete the manufacturers' core technical training courses while taking classes at Mercer, AEP provides accelerated learning opportunities for Mercer's Automotive graduates to finish their Audi technical training after they leave the college.

Qualifying graduates of Mercer's Automotive program are eligible to apply to Audi of America for acceptance into the AEP program, which concludes in as little as 18 months after a student graduates from Mercer. Benefits include employment as an Audi apprentice technician at a sponsoring Audi dealership during fulfillment of program requirements, all expenses paid expert-level training from an Audi technical training center, tool purchase incentives, and a full-time job at a participating Audi dealership upon successful completion of the program. Students who complete the Audi AEP are considered expert level trained in Audi vehicle technology, which positions them for full-time employment as a service technician at an Audi new car dealership.

Acceptance into the Audi program is competitive. Not every student meets the qualifications; but for those who do, the AEP may be a good option to jumpstart his or her career. Mercer's Automotive Technology program coordinator will provide more details about the Audi Education Partnership to individuals expressing interest.

#### **Degree Program Admission and Completion**

Registration for courses in the Automotive Technology program at Mercer requires completion of the college's admissions process and a strong interest in starting a career in automotive technology. Admissions to the program are competitive, determined by basic skill level along with a personal interview with program representatives. Program representatives want to ensure prospective students understand the program is not for hobbyists, but is instead reserved for students wanting a career in the automotive industry. Prospective students must be willing to commit to two years of automotive education and completion of required academic courses.

Students can complete the program over two calendar years, which includes class attendance during Summer terms each year. Students generally attend automotive classes two days each week, leaving the remaining days and evenings to take academic courses and participate in the internship work experience. Internship requirements for Automotive students begin in the program's third semester. The college begins a new cohort of Automotive students each Fall and Spring semesters. Students beginning in the Spring take slightly longer than two calendar years to complete their degree because of the sequencing of the automotive courses. Starting a new cohort of Automotive students each Spring semester is contingent upon an adequate number of students to form a new class.

Automotive classes meet at the Assunpink Campus of the Mercer County Technical School at 1085 Old Trenton Road, across from the main entrance to the college's West Windsor Campus. Although the automotive facility is located outside the college campus, it is indeed a college program. Academic courses can be taken at Mercer's West Windsor or James Kerney campuses, and some may be offered online.

### DEGREE CURRICULUM

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The course sequence below represents a recommended example of how this degree program can be completed in two years, presuming a Fall Term start and satisfaction of all Developmental Studies (foundation courses) requirements and prerequisites. Actual approaches toward completion depend on each student's anticipated transfer institution, career objectives, or other individual circumstances.

Students are encouraged to meet regularly with an academic advisor or Success Coach to consider options, establish plans, and monitor progress.

Code	Course (lecture/lab hours)	Credits	
FIRST SEMESTER			
<u>AUT 110</u>	Introduction to Automotive Electronics (3/1)	3	
<u>AUT 111</u>	Automotive Service Fundamentals (2/6)	5	
<u>CSW 100</u>	College Success and Personal Wellness (2/0)	2	
	• Some exemptions apply. Consult academic advisor for details.		
<u>ENG 101</u>	English Composition I (3/0)	3	
SECOND	SEMESTER		
<u>AUT 113</u>	Suspension, Steering and Alignment (2/4)	4	
<u>AUT 114</u>	Automotive Electricity and Electronics (2/3)	3	
<u>MAT 140</u>	Applied College Algebra (4/0)	4	

• Or select from MAT 146 or 151.

SUMMER SESSION			
<u>AUT 115</u>	Automotive Brake Systems (2/4)	4	
<u>AUT 122</u>	Internship in Automotive Technology I	1	
<u>AUT 212</u>	Automotive Air Conditioning (2/2)	3	
ENG 112	English Composition II with Speech (3/0)	3	
THIRD SI	EMESTER		
<u>AUT 112</u>	Automotive Fuel Systems (2/3)	3	
<u>AUT 123</u>	Internship in Automotive Technology II	1	
<u>AUT 213</u>	Engine Service (2/5)	4	
<u>PHY 111</u>	Physical Science Concepts (2/2)	3	
FOURTH	SEMESTER		
<u>AUT 211</u>	Automotive Emissions and Driveability Diagnosis (2/3)	3	
<u>AUT 221</u>	Internship in Automotive Technology III	1	
<u>AUT 224</u>	Manual Transmissions and Drivelines (2/3)	3	
	Social Science or Humanities general education elective	3	
SUMMER	SESSION		
<u>AUT 222</u>	Internship in Automotive Technology IV	1	
<u>AUT 225</u>	Automatic Transmission Service (2/3)	3	
<u>IST 101</u>	Computer Concepts with Applications (2/2)		
	OR	3	
<u>IST 102</u>	Computer Concepts with Programming (2/2)		
	General Education elective	3	
	• Select course from the following <u>general education</u> categories: Social Science, Humanities, Historical Perspective, Diversity and Global Perspective.		
		66	

**NOTE:** Electives should be selected in consultation with an academic advisor in order to assure maximum transfer of credits.