

## Automotive Technologies A.A.S.

Career Community: Transportation

Curriculum Code: 1791

Effective: Fall 2025 - Summer 2030

## **Purpose of the Major**

There is a need for highly skilled automotive technicians because automobiles are more complex than ever, and are being kept for a record-breaking length of time. This Associate Degree will give students the training needed to diagnose, repair, and maintain the automobiles of today, as well as the automobiles of tomorrow. Students explore various aspects of modern automobile theory and operation, diagnosis, repair, and maintenance for all major systems of the vehicle. Students will be trained with the newest and latest tools and equipment in a realistic hands-on laboratory environment.

### Milestone

In addition to the required General Education courses in Math and English, completion of AUTM 111 and AUTM 131 with a 2.0 or higher is a key component for success in completing this program. Knowledge obtained in these courses is the foundation for learning in other required courses. Students are encouraged to contact their faculty if they need additional assistance with learning the concepts presented in these courses.

#### **Additional Information**

Approximately 70% of the instruction is hands-on laboratory time, and all lab and lectures feature class sizes of less than 16 students to provide generous personal interaction with your instructors. All instructors are ASE certified, and bring their extensive years of experience working within the automotive repair industry to the classroom. All students have the opportunity to take State of Michigan as well as the nationally recognized ASE tests throughout this program to become a certified automotive technician. To assist students with their career goals, LCC Automotive covers the cost of State and ASE tests as well as the cost of most of their automotive textbooks. Select general education courses compliment this degree.

The Automotive Technology Program is a National Automotive Technicians Education Foundation (NATEF) Certified Training Program, evaluated by the National Institute for Automotive Service Excellence (ASE). The Automotive Program is a Snap-On Diagnostics Training Center and a member of the National Alternative Fuels Training Consortium (NAFTC).

Not all courses in this program transfer to all colleges. Students planning to transfer should see an academic advisor before enrolling in any course.

Students completing this curriculum may also be eligible to apply for multiple certificates in Automotive Technologies.

### **Contact Information**

For further information, including career options, course substitutions and waivers, etc., contact the Automotive Technology Program, West Campus Building, Room M103, telephone number 517-267-6406, or Student Services West Campus, West Campus Building, Room M106, telephone number 517-267-5452.

**Major Required Courses** - A minimum of 2.0 is required to meet LCC degree requirements for General Education courses and for all courses to transfer to other colleges (some colleges, and some programs within colleges, require a higher grade in a course).

Course Code	Course Title	Credit / Billing Hours
ACAD 100	First-Year Experience	1/1
AUTM 102	Automotive/Collision Safety	1/1
AUTM 111	Automotive Electrical I	4/6
AUTM 113	Automotive Electrical II	4/6
AUTM 131	Automotive Engine Repair	4/6
AUTM 141	Braking Systems and ABS	4/6
AUTM 151	Suspension and Steering	4/6
AUTM 161	Auto Heating/Air Conditioning	4/6
AUTM 180	Intro to Alternative Fuels	2/2
AUTM 211	Automotive Electrical III	4/6
AUTM 225	Transmissions and Drivelines	4/6
AUTM 270	Gas Eng Drivability Diagnosis	4/6
AUTM 273	Lt. Diesel Drivability Diag.	4/6
AUTM 275	Ignition/Emission Sys Diag	4/6
AUTM 286	xEV Energy & Support Systems	4/6
AUTM 288	xEV Propulsion & Drive Systems	4/6
COMM 110 or	Communication in the Workplace	3/3
COMM 120 or	Dynamics of Communication	3/3
COMM 130	Fundamentals Public Speaking	3/3
ENGL 121 or	Composition I	4/4
ENGL 124 or	Technical Writing	3/3
ENGL 127 or	Business Writing	3/3
ENGL 131	Honors Composition I	4/4
MATH 115 or	Technical Mathematics	4/4
MATH 119 or	Math – Applications for Living	4/4
MATH 120 or	College Algebra	4/4
STAT 170	Introduction to Statistics	4/4

#### Notes:

ACAD 100 may be waived when students meet one of the following College-approved waiver criteria:

• Completion of 12 college-level credits with minimum grades of 2.0 shown on the LCC transcript (including transfer, if applicable), or

• Employment in the field of, or a field related to, the degree being sought

Students wishing to waive ACAD 100 should contact their advisor.

Students considering future transfer, choose MATH 119 or MATH 120 or STAT 170.

Major Required Courses, Limited Choice – Humanities and Fine Arts or Social Sciences or Applied Social Sciences - Select one as recommended or select one from LCC General Education Applied Degrees: Humanities and Fine Arts or Social Sciences or Applied Social Sciences. A minimum grade of 2.0 is required for each General Education course.

Course Code	Course Title	Credit/Billing Hours
HUMS 223	The Western World to 1500	4/4
HUMS 224	The Western World since 1500	4/4
MGMT 234	Diversity in the Workplace	3/3
SOCL 120	Introduction to Sociology	4/4

Note: Students considering future transfer, choose HUMS 223, HUMS 224, or SOCL 120.

Major Required Courses, Limited Choice – Natural Sciences or Applied Sciences and Technology Lab - Select one lab course as recommended or select one from <u>LCC General Education Applied Degrees:</u> Natural Sciences or Applied Sciences and Technology Lab. A minimum grade of 2.0 is required for each General Education course.

Course Code	Course Title	Credit/Billing Hours
ASTR 201	Introductory Astronomy	4/5
BIOL 120	Environmental Science	4/6
PHYS 200	Intro to Applied Physics	4/5

Note: Students considering future transfer, choose ASTR 201 or BIOL 120.

# **General Education - Applied Degrees**

- English Composition or Applied English
  Major Required Courses meets this requirement.
- English Composition (second course)/Communication or Applied Communication Major Required Courses meets this requirement.
- Humanities and Fine Arts or Social Sciences or Applied Social Sciences Major Required Limited Choice Courses meets this requirement.
- Mathematics or Applied Mathematics
  Major Required Courses meets this requirement.
- Natural Sciences Lab or Applied Science and Technology Lab
  Major Required Limited Choice Courses meets this requirement.

### **Additional Credits**

After completing the course and credit requirements as noted on this pathway, students who fall short of the 60-credit minimum required for an Associate Degree may select any course(s) needed to reach 60 credits, except those courses noted in number 7 in the <a href="Institutional Requirements for Associate Degrees">Institutional Requirements for Associate Degrees</a>. Students are encouraged to use Degree Works and meet with an Advisor to ensure all requirements are met and for course recommendations.

## **Minimum Total Credit Hours**

72 credits / 99 billing hours

## **Recommended Course Sequence**

Semester I (Fall)
ACAD 100
AUTM 102
AUTM 111 – Milestone course
AUTM 141
AUTM 151
ENGL 121 or ENGL 124 or ENGL 127 or ENGL 131

Semester II (Spring)
AUTM 113
AUTM 131 – Milestone course
AUTM 161
AUTM 211

Semester III (Summer)	
COMM 110 or COMM 120 or COMM 130	
Gen Ed – Mathematics or Applied Mathematics	

Semester IV (Fall)
AUTM 180
AUTM 225
AUTM 270
AUTM 286
Limited Choice – Humanities and Fine Arts or Social Sciences or Applied Social Sciences

Semester V (Spring)	
AUTM 273	
AUTM 275	
AUTM 288	
Limited Choice – Natural Sciences Lab or Applied Science and Technology Lab	

LCC makes every effort to limit revisions to the pathways during their effective timeframe. However, the College reserves the right to update certificate and degree titles, and make course changes as needed, without prior notice. The College also reserves the right to discontinue programs when warranted