

LANSING COMMUNITY COLLEGE

Computer, Engineering/Manufacturing Industrial Technologies

**Curriculum Code: 1792
(Effective Fall 2018 –
Summer 2023)**

**Automotive Technology: Advanced Electric
Drive/Alternative Fuels C.A. Pathway**

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 Advanced Electric Drive-Alternative Fuels Certificate will give students the training needed to diagnose, repair, and maintain the automobiles of today, as well as the automobiles of tomorrow. Certificate holders may improve their employment opportunities for advancement in this or a related area. Students will study theory and operation, diagnosis, repair, and maintenance of modern automobile hybrid/electric vehicles, and alternative fueled vehicles. Students will be trained with the newest and latest tools and equipment in a realistic hands-on laboratory environment. 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 throughout this program to take State of Michigan as well as the nationally recognized ASE tests to become a certified automotive technician. To assist students with their career goals, LCC Automotive covers the cost of State and ASE tests for these specialty areas. Most automotive textbooks are provided as part of this Certificate. 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.

For More Information

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.

Semester I	Course Title	Prerequisites	Credit/Billing Hours
Program of Study Requirements			
AUTM 102	Automotive/Collision Safety	Reading Level 3 and Writing Level 2 and Math Level 3	1 / 1
AUTM 111	Automotive Electrical I	Minimum 2.0 in ((AUTM 102 or concurrently) or AUTM 101) and Reading Level 3 and Writing Level 2 and Math Level 3	4 / 6
AUTM 113	Electrical II	Minimum 2.0 in ((AUTM 111 or concurrently) or AUTM 110) and Reading Level 3 and Writing Level 2 and Math Level 3	4 / 6
AUTM 180	Intro. to Alternative Fuels	Reading Level 3 and Writing Level 2 and Math Level 3	2 / 2
Credits			11 / 15

Semester II	Course Title	Prerequisites	Credit/Billing Hours
Program of Study Requirements			
AUTM 211	Automotive Electrical III	Minimum 2.0 in ((AUTM 113 or concurrently) and Reading Level 3 and Writing Level 2 and Math Level 3	4 / 6
AUTM 270	Gas Eng Drivability Diagnosis	Minimum 2.0 in ((AUTM 211 or concurrently) or AUTM 210) and Reading Level 3 and Writing Level 2 and Math Level 3	4 / 6
AUTM 280	Electric/Fuel Cell Technology	Minimum 2.0 in (AUTM 180) and (AUTM 270 or concurrently) and Reading Level 3 and Writing Level 2 and Math Level 3.	2 / 2.5
AUTM 282	Gaseous Fuels	Minimum 2.0 in (AUTM 180 and (AUTM 270 or concurrently)) and Reading Level 3 and Writing Level 2 and Math Level 3	3 / 4
Credits			13 / 18.5
Semester III	Course Title	Prerequisites	Credit/Billing Hours
Program of Study Requirements			
AUTM 284	Hybrid Systems & Maintenance	Minimum 2.0 in (AUTM 180 and AUTM 270) and Reading Level 3 and Writing Level 2 and Math Level 3	4 / 6
AUTM 286	High Voltage Battery Tech	Minimum 2.0 in (AUTM 180 and AUTM 270) and Reading Level 3 and Writing Level 2 and Math Level 3.	4 / 6
AUTM 288	High Voltage Management	Minimum 2.0 in (AUTM 180) and (AUTM 286 or AUTO 284)) and Reading Level 3 and Writing Level 2 and Math Level 3	4 / 7
Credits			12 / 19
Total Credits			36 / 52.5