

LANSING COMMUNITY COLLEGE

CURRICULUM GUIDE

Automotive Technology, Hybrid and Alternative Fuels
Associate in Applied Science

Curriculum Code: 1763 (Effective Fall 2015 – Summer 2020)

This program prepares individuals to work as an advanced technology vehicle maintenance, diagnosis, and repair specialist. Students who complete this degree will further their education in the advanced technology vehicle field of study. Students will specialize in hybrid drive, alternative fuel, and battery electric vehicle propulsion system maintenance, diagnosis, and repair. This prepares the student for ASE testing and certification in these specialty areas. Technicians that are highly trained and certified in advanced technology vehicles are more desirable to employers. The Automotive Technology Program is a National Automotive Technicians Education Foundation (NATEF) Certified Training Program, and a National Alternative Fuels Training Consortium (NAFTC) Certified Training Center. Not all courses in this program transfer to all colleges. Students planning to transfer should see an academic advisor before enrolling in any course.

PREREQUISITES

Students should see [Course Descriptions](#) for course prerequisite information. See [Academic Assessment and Placement Testing for Student Success](#) for skills assessment and advising information.

INFORMATION

Contact the Transportation Maintenance Technologies Department, West Campus Building, Room M103, telephone number (517) 267-6406 (Website: www.lcc.edu/transportation/automotive/) or Student Services West Campus, West Campus Building, Room M106, telephone number (517) 267-5452.

REQUIREMENTS

| CODE | TITLE | TOTAL: 54 CREDITS CREDIT HOURS |
|----------|-------------------------------|-----------------------------------|
| AUTM 101 | Automotive Shop Safety | 2 |
| AUTM 110 | Auto Electrical Fundamentals | 4 |
| AUTM 112 | Battery/Start/Charge Systems | 2 |
| AUTM 115 | Snap-On Diagnostic Equip Cert | 2 |
| AUTM 130 | Engine Mechanical Repair I | 2 |
| AUTM 170 | Drivability Fundamentals | 2 |
| AUTM 180 | Intro to Alternative Fuels | 2 |
| AUTM 210 | Adv Electrical/Electronics | 5 |

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|----------|-------------------------------|---|
| AUTM 270 | Gas Eng Drivability Diagnosis | 4 |
| AUTM 273 | Lt Diesel Drivability Diag. | 4 |
| AUTM 275 | Ignition/Emission Sys Diag. | 4 |
| AUTM 280 | Electric/Fuel Cell Technology | 2 |
| AUTM 282 | Gaseous Fuels | 3 |
| AUTM 284 | Hybrid Systems & Maintenance | 4 |
| AUTM 286 | High Voltage Battery Tech | 4 |
| AUTM 288 | High Voltage Management | 4 |
| AUTM 290 | Automotive Internship | 2 |
| AUTM 295 | Automotive Mastery Cert | 2 |

LIMITED CHOICE REQUIREMENTS

TOTAL: 16–22 CREDITS

Complete the indicated number of credits from **EACH CHOICE** listed below.

CHOICE 1: [General Education Core Areas](#)

16–22 Credits

(See *General Education Core Requirements* for information on how to fulfill these requirements.

Core area proficiency exams, where appropriate, are available for each core area.)

| | |
|--|-----|
| Communication Core Area (see Note 1) | 3–4 |
| Global Perspectives and Diversity Core Area (see Note 2) | 3–4 |
| Mathematics Core Area (see Note 3) | 3–5 |
| Science Core Area (see Note 4) | 4–5 |
| Writing Core Area (see Note 5) | 3–4 |

MINIMUM TOTAL

70

NOTES:

1. SPCH 110–Oral Comm. in the Workplace is suggested for non–transfer students for this Core area.
2. MGMT 234–Diversity in the Workplace is suggested for non–transfer students for this Core area.
3. MATH 115–Technical Math II is suggested for non–transfer students for this Core area.
4. PHYS 200–Intro Physics with Application is suggested for non–transfer students for this Core area.
5. WRIT 124–Technical Writing is suggested for non–transfer students for this Core area.
6. Students must complete each of these courses with a minimum 2.0 grade to receive this degree.

SUGGESTED COURSE SEQUENCE

Students should see course descriptions to find out when departments plan to offer courses. Students who for any reason are unable to follow the course sequence suggested below (for example, those who are part-time, have transferred in courses from another school, or have prerequisites to fulfill) should contact an academic advisor for help with adjustments.

| I-Fall | II-Spring | III-Summer | IV-Fall |
|------------------|------------------|-------------------|----------------|
| AUTM 101 | AUTM 180 | Lim.Ch.1-COMM. | AUTM 275 |
| AUTM 110 | AUTM 210 | Lim.Ch.1-GLOBAL | AUTM 280 |
| AUTM 112 | AUTM 270 | | AUTM 284 |
| AUTM 115 | AUTM 273 | | AUTM 286 |
| AUTM 130 | Lim.Ch.1-MATH | | |
| AUTM 170 | | | |
| Lim.Ch.1-WRITING | | | |
| V-Spring | | | |
| AUTM 282 | | | |
| AUTM 288 | | | |
| AUTM 290 | | | |
| AUTM 295 | | | |
| Lim.Ch.1-SCIENCE | | | |