

Associate in Applied Science (AAS)

Automotive Technology

Modern automobiles are complex machines requiring service technicians who are highly skilled and knowledgeable about mechanical, electrical, and electronic systems. The Automotive Technology program provides a strong combination of classroom theory and hands-on practice, with courses based on competencies established by the ASE Education Foundation. The LCC Automotive Technology program is certified by ASE Education Foundation, a branch of the National Institute for Automotive Service Excellence (ASE).

For a roadmap that identifies the preferred sequencing of courses and other specific recommendations from faculty, please see the corresponding program map(s):

- [Automotive Technology Associate in Applied Science \(AAS\) \(lowercolumbia.edu/program-maps/trades/AAS-Automotive-Technology\)](https://lowercolumbia.edu/program-maps/trades/AAS-Automotive-Technology)

Degree Requirements

Total credits required to earn this degree: 133 with a cumulative grade point average (GPA) of at least 2.0 in the program requirements

LCC students must meet distribution requirements for associate degrees and specific certificates. See [Diversity and Distribution Lists \(lowercolumbia.edu/publications/catalog/distribution-lists/\)](https://lowercolumbia.edu/publications/catalog/distribution-lists/) for more information.

General Education Requirements

- **Communications:**

5 credits – ENGL 110 Industrial Communications recommended

- **Quantitative / Symbolic Reasoning Skills:**

5 credits – MATH 106 Industrial Mathematics recommended

- **Human Relations / Social Science / Diversity:**

5 credits – BUS 144 Management of Human Relations:DIV meets all three of these requirements and is recommended.

- **Natural Sciences:**

5 credits – DHET 240 Fluid Power/Electrical Theory & Design **OR**
TECH 100 Advanced Principles of Technology **OR**
MFG 130 Materials Science **OR**
choose from the Distribution List.

Program Requirements

Course Code	Course Title	Number of Credits
AMTC 100	Essentials of Mechanics	5
AMTC 104	Automotive Electrical Systems	15
AMTC 105	Vehicle Climate Control	5
AMTC 114	Automotive Chassis	15
AMTC 124	Automotive Engines	15
AMTC 206	Fuels and Emissions	15
AMTC 207	Computer Engine Controls	15
AMTC 214	Automotive Drivetrains	15
MFG 105	Industrial Safety	3
HLTH 105	First Aid, CPR and Bloodborne Pathogens	1
COLL 289	Employment Portfolio Seminar	1
AMTC 288	Cooperative Education	2
WELD 105	Related Welding	6

A combination of the following courses, up to 9 credits, may be substituted for COLL 289, AMTC 288, and WELD 105 with program advisor permission: AMTC 299, ACCT 101 (5 cr), ACCT 135 (5 cr), BUS& 101 (5 cr), CS 110 (3 cr) or other WELD courses.

Program Outcomes

Students completing this program should acquire the following skills and abilities:

- Communicate professionally in writing and speaking as appropriate to an industrial technology work environment (GS).
- Apply objective, valid methods of inquiry and problem solving to draw rational, ethical, and coherent conclusions (GS).
- Apply mathematical information to perform tasks in industrial technology (GS).
- Interact effectively with individuals and groups. (GS).
- Display work appropriate behavior including positive attitude, timeliness and teamwork.
- Apply knowledge of computer programs to create professional, academic, or business documents following current industry standards.

- Apply industry standard safety and hazardous material handling guidelines.
- Analyze and repair automotive systems including electrical, engines, heating, air conditioning, transmissions drivetrain, suspension, wheels, tires and brakes.
- Demonstrate competency in fluid services of automotive systems.
- Analyze automotive vehicles to diagnose cause of concern.
- Service and repair automotive engines including fuel, ignition, and computer systems.
- Locate information using a variety of automotive service information resources.

Notes

Revised December 2021 (effective Summer 2022)

Program planning is based on information available at the time of preparation. It is the student's responsibility to meet with their LCC advisor and with an advisor at the college to which they plan to transfer for specific requirements. Consult the LCC catalog for LCC graduation requirements.