

AUTOMOTIVE TECHNOLOGY - ADVANCED TECHNICAL CERTIFICATE (ATC)

Explore More About This Program: <https://cwi.edu/program/automotive-technology>

Certificate Quick Facts

- **Instructional School:** Industry, Engineering, and Trades
- **Department:** Automotive Service and Collision Repair
- **Program Code:** AUTO.ATC
- **Program Type:** Career and Technical Education
- **Available Fully Online:** No
- **Eligible for Federal Financial Aid:** Yes

NOTE: Courses required for this program *may* have an additional fee; more information can be found on the [Special Course Fees](#) web page.

Certificate Requirements

Course	Course Title	Min Credits
General Education Requirements		
ENGL 101	Writing and Rhetoric I (Recommended GEM 1) ¹	3
MATH 118 & 118L	Technical Math and Technical Math Lab (Recommended GEM 3) ¹	3
Major Requirements		
AUTO 112	Automotive Foundations and Safety	3
AUTO 115	Automotive Maintenance	3
AUTO 121	Automotive Electrical Systems I	3
AUTO 125	Automotive Electrical Systems II	3
AUTO 131	Brakes	3
AUTO 135	Suspension and Steering	3
AUTO 141	Engine Repair	3
AUTO 145	Manual Drivetrain and Axles	3
AUTO 250	Engine Management Systems I	3
AUTO 255	Engine Management Systems II	3
AUTO 260	Automatic Transmission/Transaxle	3
AUTO 265	Heating and Air Conditioning	3
AUTO 270	Light-Duty Diesel Technology	3
AUTO 275	Electric Vehicle and Hybrid Technology	3
AUTO 280	Automotive Shop Practice	3
AUTO 290	Automotive Technology Capstone	3
Minimum Credit Hours Required		54

¹ The courses listed under the General Education Requirements section are recommended by the department as the most beneficial general education (GE) options for students in this program. **Please note that students may fulfill their GE requirements by completing another course within the designated general education category.**

Certificate Plan: Fall Or Spring Start

The course sequence listed below is strongly recommended in order to complete your program requirements. Many Career and Technical Education (CTE) courses have prerequisites and/or corequisites that have been accounted for within this course sequence plan. Please register for each semester as shown using the Student Planning tool in myCWI. Consult your advisor for any questions regarding this course sequence plan.

****NOTE****

Automotive Technology (AUTO) majors are required to complete two general education courses in order to receive an Advanced Technical Certificate. Prior to beginning their AUTO courses, students are strongly encouraged to complete ENGL 101 Writing and Rhetoric I, MATH 118

Technical Math, and MATH 118L Technical Math Lab. While it is recommended that students complete both of their required general education courses during the semester prior to beginning the program, students who scored high enough on their Math and English placement tests to register for first-semester AUTO classes may elect to take the required GEM courses during the summer semester between their first and second year in the program, if preferred. Students may also complete GEM courses during regular semesters while enrolled in AUTO courses, if they feel capable of doing so, and can complete them in any order they prefer. **Students should note that the completion of a GEM 1 and GEM 3 course are required *prior* to beginning their final semester of the program.**

First Year		Credit Hours
Summer		
Full 8-Week Course Session		
ENGL 101	Writing and Rhetoric I (Recommended GEM 1) ¹	3
MATH 118 & 118L	Technical Math and Technical Math Lab (Recommended GEM 3) ¹	3
Total Semester Credit Hours		6
Fall		
First 4-Week Course Session		
AUTO 112	Automotive Foundations and Safety	3
Second 4-Week Course Session		
AUTO 115	Automotive Maintenance	3
Third 4-Week Course Session		
AUTO 121	Automotive Electrical Systems I	3
Fourth 4-Week Course Session		
AUTO 141	Engine Repair	3
Total Semester Credit Hours		12
Spring		
First 4-Week Course Session		
AUTO 125	Automotive Electrical Systems II	3
Second 4-Week Course Session		
AUTO 131	Brakes	3
Third 4-Week Course Session		
AUTO 135	Suspension and Steering	3
Fourth 4-Week Course Session		
AUTO 145	Manual Drivetrain and Axles	3
Total Semester Credit Hours		12

Second Year		
Fall		
First 4-Week Course Session		
AUTO 250	Engine Management Systems I	3
Second 4-Week Course Session		
AUTO 255	Engine Management Systems II	3
Third 4-Week Course Session		
AUTO 260	Automatic Transmission/Transaxle	3
Fourth 4-Week Course Session		
AUTO 265	Heating and Air Conditioning	3
Total Semester Credit Hours		12
Spring		
First 4-Week Course Session		
AUTO 270	Light-Duty Diesel Technology	3
Second 4-Week Course Session		
AUTO 275	Electric Vehicle and Hybrid Technology	3
Third 4-Week Course Session		
AUTO 280	Automotive Shop Practice	3
Fourth 4-Week Course Session		
AUTO 290	Automotive Technology Capstone	3
Total Semester Credit Hours		12
Minimum Credit Hours Required		54

¹ The general education (GE) courses listed above are recommended by the department as the most beneficial GE options for students in this program. **Please note that students may fulfill their GE requirements by completing another course within the designated general education category.**

Program Learning Outcomes

Upon successful completion of this program, students will be able to:

- Demonstrate the appropriate mastery of knowledge and skills that are identified by the National Institute for Automotive Service Excellence (ASE) task list to become a successful entry-level automotive technician.
- Demonstrate the ability to communicate effectively.
- Demonstrate the ability to identify, analyze, and solve technical problems associated with being an automotive technician.
- Demonstrate knowledge and understanding of safety practices specifically related to automotive repair at CWI.
- Demonstrate proper work habits and ethics.
- Demonstrate industry standards for preparing a vehicle.