

Automotive Technician

Technical Diploma

Learn basic and more advanced automotive maintenance, repair, and diagnostics. Automotive technicians test, diagnose, and service electrical and mechanical systems and components found in today's automotive vehicles, including engines, transmissions/ transaxles, fuel management systems, steering and suspension systems, climate control systems, brake systems, and hybrids. Graduates will be qualified for all eight areas of the ASE Certified Master Technician.

Program Outline

TERM 1		
Course #	Course Title	Credits
3180410100	Math Skills Develops skills in using mathematics principles, essential to the technical service and production workplace, through applied learning contexts. Content includes whole numbers, fractions, percent, graphs, and fundamentals of algebra. Corequisite: 1044210300 Print Reading.	1.00
3180410200	Geometry Skills Develops skills in using mathematics principles, essential to the technical service and production workplace, through applied learning contexts. Content includes geometry and trigonometry, and tools and techniques for precision measurement. Corequisite: 1044210300 Print Reading.	1.00
3240430100	Automotive Safety Student will demonstrate competence in automotive safety. This is part of the Maintenance and Light Repair ASE G1.	1.00
3240430200	Automotive Service Fundamental Procedures Student will demonstrate basic automotive service procedures. This is part of the Maintenance and Light Repair ASE G1.	1.00
3240430400	Electrical Principles Student will summarize electrical principles. his is part of the Maintenance and Light Repair Certification ASE G1.	1.00
3240430600	Automotive Electrical Wire Repair Student will perform basic electrical testing procedures. his is part of the Maintenance and Light Repair Certification ASE G1.	1.00
3240430800	Steering, Suspension, Inspection, and Light Repair Student will inspect, diagnose, and repair steering and suspension systems. This is part of the Maintenance and Light Repair ASE G1.	1.00
3240440100	Wheel and Tire Service Student will perform diagnosis and repair of wheel and tire systems. This is part of the Maintenance and Light Repair ASE G1.	1.00
3240431000	Wheel Alignment Student will perfrom wheel alignment inspection and repair. This is part of the Maintenance and Light Repair ASE G1.	1.00

Course #	Course Title	Credits
3240431300	Battery and Lighting Systems Student will diagnose, service, and repair automotive battery and lighting systems. This is part of the Maintenance and Light Repair Certification ASE G1.	1.00
3240431500	Starting and Charging Systems Student will diagnose, service, and repair automotive charging and starting systems. This is part of the Maintenance and Light Repair Certification ASE G1.	1.00
3240431700	Automotive HVAC Systems Student will perform general A/C diagnosis and repair. This is part of the Maintenance and Light Repair Certification ASE G1.	1.00
1044214000	Intro to Welding Techniques Students will explore and perform basic welding techniques.	1.00

TERM 2

Course #	Course Title	Credits
3189010400	Professional Skills for Success This course provides the opportunity to develop the knowledge, skills, and understanding of what it takes to become a professional employee. This course will focus on the development the interpersonal skills of emotional intelligence, communication, teamwork, negotiation, conflict resolution, problem solving, and decision making in a professional setting.	1.00
3189010700	Ethics for the Workplace This course offers the opportunity to develop your ability to recognize and make ethical decisions in the workplace. The focus will be on the recognition and development of values. Expansion of ethical values will focus on demonstrating respect through dignity, diversity, and equality while enhancing guiding actions with the principles of confidentiality, honesty, and transparency in business and in conduct towards others.	1.00
3240441500	Engine Repair Mechanical System Student will perform engine mechanical diagnosis procedures. This is part of the Maintenance and Light Repair ASE G1.	1.00
3240442000	Engine Lubrication Systems Student will perform diagnosis and repair of the lubrication systems. This is part of the Maintenance and Light Repair ASE G1.	1.00
3240442500	Engine Cooling Systems Student will perform diagnosis and repair of the cooling systems. This is part of the Maintenance and Light Repair ASE G1.	1.00
3240443000	Drum Brakes Student will perform diagnosis and repair of drum brake systems. This is part of the Maintenance and Light Repair ASE G1.	1.00
3240443600	Disc Brakes Student will perform diagnosis and repair of disc brake systems. This is part of the Maintenance and Light Repair ASE G1.	1.00
3240432500	Engine Performance Maintenance Students will perform general diagnosis and repair procedure of engine performance systems. This is part of the Maintenance and Light Repair Certification ASE G1.	1.00
3240432700	Manual Drivetrain Fluid Service and Repair Student will perform fluid service and diagnosis and drive shaft & CV shaft diagnosis & repair. This is part of the Maintenance and Light Repair ASE G1.	1.00

Course #	Course Title	Credits
3240433000	Automatic Transmission Service Student will perform basic automatic transmission/transaxle diagnosis and fluid service. This is part of the Maintenance and Light Repair ASE G1.	1.00
3240433800	Automotive Service Professional Simulation 1 Students will practice entry-level service technician skills.	1.00
TERM 3		
Course #	Course Title	Credits
3240434200	Hydraulic and Mechanical Brake Systems Student will perform diagnosis and repair of master cylinders, brake lines, brake power assist units, and electronic brake control systems. This is part of the ASE A5 Certification.	1.00
3240444000	Electronic Brake Control System Student will perform diagnosis and repair of electronic brake control systems. This is part of the ASE A5 Certification	1.00
3240434500	Hybrid Motors and Batteries Student will learn hybrid motor and battery operation and testing.	1.00
3240434700	Hybrid Manufacturer Specific Systems Student will survey manufacturer specific hybrid systems.	1.00
3240435200	Engine Repair Cylinder Head Student will perform service procedures on engine cylinder head. This is part of the ASE A1 Certification.	1.00
3240435400	Engine Repair Engine Block Student will perform service procedures on engine block. This is part of the ASE A1 Certification.	1.00
3240435800	HVAC Controls Student will perform diagnosis of HVAC control systems. This is part of the ASE A7 Certification.	1.00
3240444500	Automotive Sensors and Diagnostics This course covers sensors that are common in automotive applications. Student will learn sensor construction, operation, and diagnosis skills including strategy based diagnostics and oscilloscope use.	1.00
3240445000	Automotive Data Communication Systems This course covers automotive computer networks. Student will learn system construction, operation, and diagnosis skills.	1.00
3240436200	Entertainment and Comfort Systems Student will perform diagnosis of anti-theft and security systems. Student will perform diagnosis of entertainment systems. This is part of the ASE A6 Certification. Prerequisite: 3240445000 Automotive Data Communication Systems (C or better) (concurrent enrollment allowed).	1.00
3240436400	Safety and Anti-theft Systems Student will perform diagnosis of horn and wiper systems. Student will perform module reprogramming procedures. This is part of the ASE A6 Certification. Prerequisites: 3240445000 Automotive Data Communication Systems (C or better) (concurrent enrollment allowed) and 3240444500 Automotive Sensors and Diagnostics (C or better) (concurrent enrollment allowed).	1.00

Course #	Course Title	Credits
3240436600	Automotive Occupational Operations Student will explore automotive occupational operations	1.00
3240436800	Automotive Business Operations Student will explore automotive business operations	1.00
3240437000	Advanced Steering Systems Student will perform diagnosis and repair of power steering and steering linkage. This is part of the ASE A4 Certification.	1.00
3240437200	Advanced Suspension Systems Student will perform diagnosis and repair of suspension components. This is part of the ASE A4 Certification.	1.00
3240435600	HVAC System Service Student will perform refrigerant recovery, recycling, and handling procedures. Student will perform A/C system component replacement and diagnosis. This is part of the ASE A7 Certification.	1.00
TERM 4		
Course #	Course Title	Credits
3240437600	Axles and Differentials Student will perform diagnose & repair of ring and pinion and differential assembly. This is part of the ASE A3 Certification.	1.00
3240437800	Manual Clutch and Transmission Systems Student will perform diagnosis and repair of the clutch and transmission systems. This is part of the ASE A3 Certification.	1.00
3240438000	Automatic Transmission Transaxle Diagnosis Student will perform advanced automatic transmission/transaxle diagnosis. This is part of the ASE A2 Certification.	1.00
3240438200	Automatic Transmission Transaxle Remove and Reinstall Student will remove and reinstall an automatic transmission/transaxle. This is part of the ASE A2 Certification.	1.00
3240438400	Automatic Transmission Transaxle Rebuild Student will perform transmission/transaxle rebuilding procedures. This is part of the ASE A2 Certification.	1.00
3240438600	Computerized Engine Controls Systems Student will perform diagnosis of computerized engine control system. This is part of the ASE A8 Certification. Prerequisites: 3240445000 Automotive Data Communication Systems (C or better) (concurrent enrollment allowed) and 324044500 Automotive Sensors and Diagnostics (C or better) (concurrent enrollment allowed).	1.00
3240438800	Ignition System Student will perform diagnosis and repair of ignition system. This is part of the ASE A8 Certification.	1.00
3240446000	Fuel Systems Student will perform diagnosis and repair of fuel supply and delivery systems. This is part of the ASE A8 Certification.	1.00

Course #	Course Title	Credits
3240446500	Normal and Forced Aspiration Systems Systems Student will perform diagnosis and repair of air induction systems. This is part of the ASE A8 Certification.	1.00
3240439200	EVAP and PCV Systems Student will perform diagnosis and repair of EVAP and PCV systems. This is part of the ASE A8 Certification.	1.00
3240439400	Exhaust Related Emission Controls Student will perform diagnosis and repair of catalytic converters, AIR, and EGR systems. This is part of the ASE A8 Certification.	1.00
3240439600	Automotive Diesel Operation Student will learn diesel engine and fuel system operation and diagnosis.	1.00
3240439800	Automotive Diesel Emissions Student will learn and diagnose diesel emission systems.	1.00
3240439900	Automotive Service Professional Simulation 2 Students will continue to practice entry service technician skills with refinement on the concern, cause, and correction, including indepth diagnosis.	1.00
3240437400	Manual Driveline and Four Wheel and All Wheel Drive Student will perform diagnosis and repair of manual transmission/transaxle and Four-wheel and all-wheel drive. This is part of the ASE A3 Certification.	1.00

Total Credits: 55.00

Talk with a Success Coach about the program outline. Together, you will determine if credits you've already earned satisfy any requirements, discuss possible alternative courses, and choose the best classes if you're thinking of transferring.

At A Glance

How You'll Learn

2024 Start Dates

January 8	June 3
February 5	July 1
March 4	August 26
May 6	October 21

What is Competency-Based Education?

Competency-Based Education (CBE) is learning at your own pace by mastering competencies through demonstration. Once all competencies for a program have been assessed and mastered, students will earn a certificate, diploma, or degree.

[LEARN MORE ABOUT CBE](#)

Program Tuition*

\$14,069

Books & Supplies*

\$629

*Total cost for degree completion is estimated by current course requirements, books, and supplies. Tuition and fees are set by the Wisconsin Technical College System and subject to change.

Financial Aid Eligible

► [Potential Indirect Costs](#)

What You'll Learn

- Demonstrate professionalism appropriate for the auto service industry.
 - Perform diagnosis, service, and repair of automotive internal combustion engines.
 - Perform diagnosis, service, and repair of automotive manual drive train and axles systems.
 - Perform diagnosis, service, and repair of automotive automatic transmission/transaxle systems.
 - Perform diagnosis, service, and repair of automotive steering and suspension steering systems.
 - Perform diagnosis, service, and repair of automotive brake systems.
 - Perform diagnosis, service, and repair of automotive electrical/electronic systems.
 - Perform diagnosis, service, and repair of automotive heating and air conditioning systems.
 - Perform diagnosis, service, and repair of automotive engine performance systems.
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Your Potential Careers

- Automotive Service Technician
- Technical Specialist
- Shop Foreman
- Service Manager
- Manufacturer's Representative
- Automotive Parts Specialist
- Automotive Service Advisor

Median Annual Salary

\$39,054	\$39,449	\$39,228
Local	State	National

EMSI 2022.1

Get Started

Your application can be submitted online, it takes just a few minutes to complete.

[APPLY NOW](#)