

AUTOMOTIVE TECHNOLOGY I & II

ENGINEERING, MANUFACTURING AND INDUSTRIAL TECHNOLOGY



Course Description

This program is offered to juniors and seniors and provides an introduction to basic shop procedures and processes through a course that exceeds the nationally recognized Automotive Service Excellence (ASE) Maintenance and Light Repair Technical Program Standards. It reaches the Mastery Standards in Electrical, Brakes, Steering and Suspension, Engine Repair, as well as Automotive Heating, Ventilation and Air Conditioning (HVAC).

At the end of each core subject, students have the opportunity to take the State of Michigan Mechanics Licensing Exam on campus for a total of five licenses. If college-level work is attained, students can earn up to 21 Lansing Community College (LCC) credits over the course of two years. Interested students can continue with Automotive Technology II during their senior year.

Student Leadership Opportunities

Students have the opportunity for leadership, competition and community service through membership in SkillsUSA.

Success Indicators

Strong science interest, mechanically inclined, kinesthetic, hands-on learner, ability to apply written to practical information, deductive reasoning, critical thinking, willingness to work hard, time management skills

Available Certifications:

State of Michigan: Brakes Certification, Steering and Suspension Certification, Electrical Certification, Heating, Ventilation, and Air Conditioning Certification, and Engine

Course Overview:

Program Location: Lansing Community College (LCC) West Campus

Sessions Offered: AM/PM

Average Lecture Days/Week: 2-3 Days

Average Lab Days/Week: 2-3 Days

Academic Rigor: 3 out of 5

Homework: Weekly

Required Reading: College-level textbooks and workbooks. Less than 25 pages/week.

Learning outcomes include, but are not limited to:

- Automotive environmental safety and basic engine/vehicle maintenance
- Utilization of manufacturer service information
- Electrical theory (including Watt's, Ohm's and Kirchhoff's Law), basic wiring skills, circuit interpretation, diagnosis, and service
- Battery service and diagnosis, starting and charging system diagnosis and service
- Disc and drum brake diagnosis and repair, hydraulic system diagnosis and repair, anti-lock brake system operation and diagnosis
- Wheel bearing, parking brake, and other brake component service and maintenance
- Steering and suspension interpretation, diagnosis, and service, four-wheel alignment, advanced tire service (including force matching), and stability control systems
- Refrigerant handling, air conditioning system charging, climate control systems, and vehicle cooling systems
- Four-cycle engine operation, critical engine measurement, engine cleaning and rebuilding, and engine dynamometer operation

College Credits (21)

- AUTM 102 - Automotive Safety (1) - Year One
- AUTM 111 - Automotive Electrical I (4) - Year One
- AUTM 141 - Braking Systems and ABS (4) - Year One
- AUTM 131 - Automotive Engine Repair (4) - Year Two
- AUTM 151 - Suspension and Steering (4) - Year Two
- AUTM 161 - Auto Heating/Air Conditioning (4) - Year Two

FOR MORE INFO:
CONTACT YOUR COUNSELOR,
CALL 517.483.1596, OR
VISIT EATONRESA.ORG/CPC



AUTOMOTIVE TECHNOLOGY



PROFESSIONAL CAREERS

- ASE Master Certified Technician
- Automotive Machinist
- Automotive Technology Educator
- Dealership Service Manager

- General Manager
- Parts Store Manager
- Sales Manager
- Shop Owner

TECHNICAL CAREERS

- ASE Certified Technician
- Manager
- Brake Specialist
- Dealership Line Technician

- Engine Builder
- Machine Shop Technician
- Quick Lube Manager
- Vehicle Inspector

ENTRY-LEVEL CAREERS

- Alignment Technician
- Automotive Maintenance & Light Repair Technician
- Brakes System Technician
- Electrical/Electronic Technician

- Oil Change Specialist
- Service Writer
- Technician Helper
- Tire Technician/Apprentice
- Tire Technician

ACADEMICS

EXPERIENCES

PROFESSIONAL SKILLS

PASSION

Education with Purpose.
CAREER TREE®

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Use the Career Tree to explore your interests, learn what education or training is needed, and plan your next steps after high school. The more you explore, the more you'll see how skills learned now can lead to a strong, rewarding future.

Scan the QR code below to learn more and watch the program video.

**SCAN
ME!**



Capital Region Technical Early College (CRTEC)

Students enrolled in this program may choose to participate in the Capital Region Technical Early College (CRTEC) program. This is a high school-to-college program where students start in grade 11 and end their 13th year with a degree or certification. This program gives students relevant career related experiences.



**EXPLORE THE POSSIBILITIES.
FAST TRACK YOUR FUTURE.**

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