

**Program Number 31-404-3
Technical Diploma • Four Terms**
ABOUT THE PROGRAM

Most of us place great value on owning and operating our own vehicles. Our independence stems from our ability to jump in our cars and trucks and go wherever we want, whenever we want. When our independence is threatened because our vehicles aren't working properly, the first person we seek is a qualified automotive maintenance technician. If you're mechanically talented, like to solve problems, and enjoy working with people, success in the automotive maintenance field may be just down the road for you.

PROGRAM OUTCOMES

- Demonstrate professionalism appropriate for the auto service industry
- Perform maintenance and repair of automotive steering and suspension systems
- Perform maintenance and repair of automotive brake systems
- Perform maintenance and repair of automotive electrical and electronic systems
- Perform maintenance and repair of automotive internal combustion engines
- Perform maintenance and repair of automotive transmission/transaxle systems
- Perform maintenance and repair of automotive manual drive train and axle systems
- Perform maintenance and repair of automotive heating and air conditioning systems
- Perform maintenance and repair of engine performance systems

CAREER AND EDUCATION ADVANCEMENT OPPORTUNITIES

Lakeshore credits transfer to over 30 universities. For more information visit lakeshore.edu/future-students/transfer.

ADMISSIONS AND FIRST SEMESTER ENROLLMENT STEPS

- Submit online application.
- Complete the online Student Success Questionnaire.
- Complete Get Started at Lakeshore appointment:
 - Application Check-in
 - College Orientation Overview
 - 1st Time Program Registration

**Submit high school transcripts, college transcripts, and test scores (optional, highly recommended). Official transcripts will be needed for transferring college credit(s) and for financial aid purposes.*

ACADEMIC PREPAREDNESS/FUTURE SEMESTER ENROLLMENT STEPS

If applicable, complete program-specific academic preparedness requirements and enrollment steps prior to enrolling in occupational or core courses. Students will be notified if there is a program waitlist. View the college's program webpage for details: <https://lakeshore.edu/programs-and-courses/career-areas/transportation-distribution-logistics/automotive-maintenance-technician>.

APPROXIMATE COSTS

\$152.85 per credit tuition (WI resident) plus \$9.17 per credit student activity fee. Material fee varies depending on course. Other fees vary by program. Visit lakeshore.edu/Financial-Aid/tuition-and-fees for details.

FINANCIAL AID

This program is eligible for financial aid. Visit lakeshore.edu/Financial-Aid for more information.

SPECIAL NOTES

This program is certified by ASE (Automotive Service Excellence). Students are well-prepared to take the ASE Exam.

CONTACT

Lakeshore College Recruiter
920.693.1366 • Recruitment@lakeshore.edu

Catalog No.	Class Title	Credit(s)
Term 1		
31404200	Auto Orientation and Safety*	1
31404201	Electrical Principles 1: Basics*	1
31404202	Electrical Principles 2: Ohm's Law*	1
31404203	Electrical Principles 3: DC Circuits*	1
31404204	Electrical Principles 4: Troubleshooting*	1
31404213	Auto Mechanical Hand and Torque Tools*	1
31404212	Auto Mechanical Measuring and Instruments*	1
31404240	Hydraulic and Mechanical Brake Systems*	1
31404242	Disc and Drum Brakes*	1
31404241	Electronic Brake Control Systems*	1
10442100	Safety and Welding Fundamentals*	1
31404306	Auto Body Applications for Mechanics*	1
		12
Term 2		
31404205	Electrical Principles 5: Batteries Lighting*	1
31404206	Electrical Principles 6: Wire Repair*	1
31404207	Electrical Principles 7: Relay Circuits*	1
31404208	Electrical Principles 8: Starting Charging*	1
31404243	Steering, Suspension, Inspection, Repair*	1
31404244	Advanced Steering & Suspension Systems*	1
31404245	Wheel Alignment and Tire Service*	1
31404246	Engine Repair Cylinder Head*	1
31404247	Engine Repair Engine Block*	1
31404248	Engine Cooling Systems*	1
31404249	Engine Repair Mechanical Systems*	1
31404250	Engine Lubrication Systems*	1
		12
Term 3		
31404209	Electrical Principles 9: Anti-Theft Systems*	1
31404210	Electrical 10: Auto Data Network Systems*	1
31404211	Electrical 11: Auto Entertainment Systems*	1
31404251	Manual Drivetrain Fluid Service*	1
31404252	Manual Clutch and Transmission Systems*	1
31404253	Manual, Four-Wheel, and AWD Drivetrains*	1
31404254	Axles and Differentials*	1
31404255	Auto HVAC Controls*	1
31404256	Auto HVAC Systems and Service*	1
31404221	Auto Engine Performance 1: Sensors*	1
31404222	Auto Engine Performance 2: Ignition Systems*	1
31404223	Auto Engine Performance 3: Fuel Systems*	1
		12
Term 4		
31404224	Auto Engine Performance 4: Controls Systems*	1
31404225	Auto Engine Performance 5: Hybrid Systems 1*	1
31404226	Auto Engine Performance 6: Hybrid Systems 2*	1
31404227	Auto Engine Performance 7: Diesel Operation*	1
31404228	Auto Engine Performance 8: Diesel Emissions*	1
31404229	Auto Engine Performance 9: Induction System*	1
31404230	Auto Engine Performance 10: EVAP and PCV*	1
31404231	Auto Engine Performance 11: Emissions*	1
31404257	Auto Transmission Service*	1
31404258	Auto Transmission Transaxle Diagnoses*	1
31404259	Auto Transmission Transaxle Replacement*	1
31404260	Auto Transmission Transaxle Rebuild*	1
		12
		TOTAL 48

*CBE delivery only

Curriculum and program acceptance requirements are subject to change. Program start dates vary; check with your academic counselor for details. The tuition and fees are approximate based on 2025-2026 rates and are subject to change prior to the start of the academic year.

ADVANCED STEERING AND SUSPENSION SYSTEMS......provides the student with the skills and knowledge to perform diagnosis and repair of power steering and steering linkage and suspension components. This is part of the ASE A4 Certification. COREQUISITE: 31404200 Auto Orientation & Safety or PREREQUISITE: 31404301 Auto Orientation & Safety and COREQUISITE: 31404213 Auto Mech Hand & Torque Tools or PREREQUISITE: 31404303 Auto Mech Hand & Torque Tools

AUTO BODY APPLICATIONS FOR MECHANICS......introduces the mechanic student to the common auto collision repair topics experienced in a maintenance shop. Concepts include adhesives, window regulators, panel scratch repair and polishing, plastic repair, and panel alignment.

AUTO ENGINE PERFORMANCE 1: SENSORS......provides the student with the skills and knowledge to work with sensors that are common in automotive applications. Student will learn sensor construction, operation, and diagnosis skills including strategy-based diagnostics and oscilloscope use. Part of the ASE A8 Certification. PREREQUISITE: 31404327 Auto Electrical Systems 6 or COREQUISITE: 31404211 Electrical 11: Auto Entertainment Systems

AUTO ENGINE PERFORMANCE 10: EVAP AND PCV......provides the student with the skills and knowledge to perform diagnosis and repair of EVAP and PCV systems. This is part of the ASE A8 Certification. PREREQUISITE: 31404333 Auto Engine Performance 2 or COREQUISITE: 31404229 Auto Engine Performance 9: Induction Systems

AUTO ENGINE PERFORMANCE 11: EMISSIONS......provides the student with the skills and knowledge to perform diagnosis and repair of catalytic converters, AIR, and EGR systems. This is part of the ASE A8 Certification. PREREQUISITE: 31404333 Auto Engine Performance 2 or COREQUISITE: 31404230 Auto Engine Performance 10: EVAP and PCV

AUTO ENGINE PERFORMANCE 2: IGNITION SYSTEMS......provides the student with the skills and knowledge to perform diagnosis and repair of ignition systems. This is part of the ASE A8 Certification. PREREQUISITE: 31404327 Auto Electrical Systems 6 or COREQUISITE: 31404221 Auto Engine Performance 1: Sensors

AUTO ENGINE PERFORMANCE 3: FUEL SYSTEMS......provides student with the skills and knowledge to perform diagnosis and repair of fuel supply and delivery systems. This is part of the ASE A8 Certification. PREREQ: 31404327 Auto Electrical Systems 6 or COREQ: 31404222 Auto Engine Performance 2: Ignition Systems

AUTO ENGINE PERFORMANCE 4: CONTROLS SYSTEMS......provides the student with the skills and knowledge to perform diagnosis of computerized engine control system. This is part of the ASE A8 Certification. PREREQUISITE: 31404329 Auto Engine Performance 1 or COREQUISITE: 31404223 Auto Engine Performance 3: Fuel Systems

AUTO ENGINE PERFORMANCE 5: HYBRID SYSTEMS 1......provides the student with the knowledge and skills associated with hybrid motor and battery operations and testing. This is part of ASE A8 Certification. PREREQUISITE: 31404329 Auto Engine Performance 1 or COREQUISITE: 31404224 Auto Engine Performance 4: Control Systems

AUTO ENGINE PERFORMANCE 6: HYBRID SYSTEMS 2......provides the student with the skills and knowledge to survey manufacturer-specific hybrid systems. This is part of ASE A8 Certification. PREREQUISITE: 31404329 Auto Engine Performance 1 or COREQUISITE: 31404225 Auto Engine Performance 5: Hybrid Systems

AUTO ENGINE PERFORMANCE 7: DIESEL OPERATION......provides the student with the knowledge and skills associated with diesel engine and fuel system operation and diagnosis. This is part of ASE A9 Certification. PREREQUISITE: 31404333 Auto Engine Performance 2 or COREQUISITE: 31404226 Auto Engine Performance 6: Hybrid Systems

AUTO ENGINE PERFORMANCE 8: DIESEL EMISSIONS......provides the student with the skills and knowledge to diagnose diesel emission systems. This is part of ASE A9 Certification. PREREQUISITE: 31404333 Auto Engine Performance 2 or COREQUISITE: 31404227 Auto Engine Performance 7: Diesel Operation

AUTO ENGINE PERFORMANCE 9: INDUCTION SYSTEM......provides the student with the skills and knowledge to perform diagnosis and repair of air induction systems. This is part of the ASE A8 Certification. PREREQUISITE: 31404333 Auto Engine Performance 2 or COREQUISITE: 31404228 Auto Engine Performance 8: Diesel Emissions

AUTO HVAC CONTROLS......provides the student with the skills and knowledge to perform diagnosis of HVAC control systems. This is part of the ASE A7 Certification. COREQUISITE: 31404200 Auto Orientation & Safety or PREREQUISITE: 31404301 Auto Orientation & Safety and COREQUISITE: 31404213 Auto Mech Hand & Torque Tools or PREREQUISITE: 31404303 Auto Mech Hand & Torque Tools

AUTO HVAC SYSTEMS AND SERVICE......provides the student with the skills and knowledge to perform refrigerant recovery, recycling, and handling procedures. Student will perform AC system component replacement and diagnosis. This is part of the ASE A7 Certification. COREQUISITE: 31404200 Auto Orientation & Safety or PREREQUISITE: 31404301 Auto Orientation & Safety and COREQUISITE: 31404213 Auto Mech Hand & Torque Tools or PREREQUISITE: 31404303 Auto Mech Hand & Torque Tools

AUTO MECHANICAL HAND AND TORQUE TOOLS......prepares learner to use automotive hand and torque tools.

AUTO MECHANICAL MEASURING AND INSTRUMENTS......provides the student with the measuring skills and knowledge for the automotive servicing industry.

AUTO ORIENTATION AND SAFETY......prepares the learner to work effectively and efficiently in the automotive lab. Shop safety and proper procedures are emphasized.

AUTO TRANSMISSION SERVICE......provides the student with the skills and knowledge to perform basic automatic transmission and transaxle diagnosis and fluid service. This is part of the ASE G1 Certification. COREQUISITE: 31404200 Auto Orientation & Safety or PREREQUISITE: 31404301 Auto Orientation & Safety and COREQUISITE: 31404213 Auto Mech Hand & Torque Tools or PREREQUISITE: 31404303 Auto Mech Hand & Torque Tools

AUTO TRANSMISSION TRANSAXLE DIAGNOSES......provides the student with the skills and knowledge to perform advanced automatic transmission/transaxle diagnosis. This is part of the ASE A2 Certification. COREQUISITE: 31404200 Auto Orientation & Safety or PREREQUISITE: 31404301 Auto Orientation & Safety and COREQUISITE: 31404213 Auto Mech Hand & Torque Tools or PREREQUISITE: 31404303 Auto Mech Hand & Torque Tools

AUTO TRANSMISSION TRANSAXLE REBUILD......provides the student with the skills and knowledge to perform transmission/transaxle rebuilding procedures. This is part of the ASE A2 Certification. COREQUISITE: 31404200 Auto Orientation & Safety or PREREQUISITE: 31404301 Auto Orientation & Safety and COREQUISITE: 31404213 Auto Mech Hand & Torque Tools or PREREQUISITE: 31404303 Auto Mech Hand & Torque Tools

AUTO TRANSMISSION TRANSAXLE REPLACEMENT......provides the student with the skills and knowledge to remove and reinstall an automatic transmission/transaxle. This is part of the ASE A2 Certification. COREQUISITE: 31404200 Auto Orientation & Safety or PREREQUISITE: 31404301 Auto Orientation & Safety and COREQUISITE: 31404213 Auto Mech Hand & Torque Tools or PREREQUISITE: 31404303 Auto Mech Hand & Torque Tools

AXLES AND DIFFERENTIALS......provides the student with the skills and knowledge to perform diagnosis and repair of differential assemblies and drive axles. This is part of ASE A3 Certification. COREQUISITE: 31404200 Auto Orientation & Safety or PREREQUISITE: 31404301 Auto Orientation & Safety and COREQUISITE: 31404213 Auto Mech Hand & Torque Tools or PREREQUISITE: 31404303 Auto Mech Hand & Torque Tools

DISC AND DRUM BRAKES......provides the student with the skills and knowledge to perform diagnosis and repair of disc and drum brake systems. This is part of the ASE G1 Certification. COREQUISITE: 31404200 Auto Orientation & Safety or PREREQUISITE: 31404301 Auto Orientation & Safety and COREQUISITE: 31404213 Auto Mech Hand & Torque Tools or PREREQUISITE: 31404303 Auto Mech Hand & Torque Tools

ELECTRICAL 10: AUTO DATA NETWORK SYSTEMS......provides student with the skills and knowledge related to computer networks. Students will learn system construction, operation, and diagnosis skills. This is part of the ASE A6 Certification. PREREQ: 31404326 Auto Basic Elect 5 or COREQ: 31404209 Elect Principles 9: Anti-Theft Systems

ELECTRICAL 11: AUTO ENTERTAINMENT SYSTEMS......provides student with the skills and knowledge to perform diagnosis and repair of automotive entertainment systems. This is part of the ASE A6 Certification. PREREQUISITE: 31404326 Auto Basic Electrical 5 or COREQUISITE: 31404210 Electrical 10: Auto Data Network Sys

ELECTRICAL PRINCIPLES 1: BASICS......provides the student with the skills and knowledge to summarize basic electrical principles. This is part of the ASE A6 Certification. COREQUISITE: 31404200 Auto Orientation & Safety or PREREQUISITE: 31404301 Auto Orientation & Safety

ELECTRICAL PRINCIPLES 2: OHM'S LAW......provides the student with the skills and knowledge to summarize electrical principles associated with Ohm's Law. This is part of the ASE A6 Certification. COREQUISITE: 31404201 Electrical Principles 1: Basics or PREREQUISITE: 31404311 Auto Electrical Math 1

ELECTRICAL PRINCIPLES 3: DC CIRCUITS......provides the student with the skills and knowledge to summarize electrical flow associated with DC Circuits. This is part of the ASE A6 Certification. COREQUISITE: 31404202 Electrical Principles 2: Ohm's Law

ELECTRICAL PRINCIPLES 4: TROUBLESHOOTING......provides the student with the skills and knowledge to diagnose, service, and repair automotive circuits. This is part of the ASE G1 Certification. COREQUISITE: 31404203 Electrical Principles 3: DC Circuits

ELECTRICAL PRINCIPLES 5: BATTERIES LIGHTING......provides the student with the skills and knowledge to diagnose analogue lighting and automotive batteries. This is part of the ASE G6 Certification. COREQUISITE: 31404204 Electrical Principles 4: Troubleshooting or PREREQUISITE: 31404313 Auto Electricity Fundamentals 3

ELECTRICAL PRINCIPLES 6: WIRE REPAIR......provides the student with the skills and knowledge to perform basic electrical testing procedures. This is part of the ASE G1 Certification. COREQUISITE: 31404205 Electrical Principles 5: Batteries Lighting or PREREQUISITE: 31404313 Auto Electricity Fundamentals 3

ELECTRICAL PRINCIPLES 7: RELAY CIRCUITS......provides the student with the skills and knowledge to diagnose relay-controlled circuits. This is part of the ASE A6 Certification. COREQUISITE: 31404206 Electrical Principles 6: Wire Repair or PREREQUISITE: 31404323 Auto Wiring Mechanics 4

ELECTRICAL PRINCIPLES 8: STARTING CHARGING......provides the student with the skills and knowledge to diagnose, service, and repair automotive charging and starting systems. This is part of the ASE G1 Certification. COREQUISITE: 31404207 Electrical Principles 7: Relay Circuits or PREREQUISITE: 31404323 Auto Wiring Mechanics 4

ELECTRICAL PRINCIPLES 9: ANTI-THEFT SYSTEMS......provides the student with the skills and knowledge to perform diagnosis of anti-theft and security systems. Student will perform module reprogramming procedures. This is part of the ASE A6 Certification. PREREQUISITE: 31404323 Auto Wiring Mechanics 4 or COREQUISITE: 31404208 Electrical Principles 8: Starting Charging

ELECTRONIC BRAKE CONTROL SYSTEMS......provides the student with the skills and knowledge to perform diagnosis and repair of electronic brake control systems. This is part of the ASE A5 Certification. COREQUISITE: 31404200 Auto Orientation & Safety or PREREQUISITE: 31404301 Auto Orientation & Safety and COREQUISITE: 31404213 Auto Mech Hand & Torque Tools or PREREQUISITE: 31404303 Auto Mech Hand & Torque Tools

ENGINE COOLING SYSTEMS......provides the student with the skills and knowledge to perform diagnosis and repair of the cooling systems. This is part of the ASE G1 Certification. COREQUISITE: 31404200 Auto Orientation & Safety or PREREQUISITE: 31404301 Auto Orientation & Safety and COREQUISITE: 31404213 Auto Mech Hand & Torque Tools or PREREQUISITE: 31404303 Auto Mech Hand & Torque Tools

ENGINE LUBRICATION SYSTEMS......provides the student with the skills and knowledge to perform diagnosis and repair of engine lubrication systems. This is part of the ASE G1 Certification. COREQUISITE: 31404200 Auto Orientation & Safety or PREREQUISITE: 31404301 Auto Orientation & Safety and COREQUISITE: 31404213 Auto Mech Hand & Torque Tools or PREREQUISITE: 31404303 Auto Mech Hand & Torque Tools

ENGINE REPAIR CYLINDER HEAD......provides the student with the skills and knowledge to perform service procedures on the engine cylinder head. This is part of the ASE A1 Certification. COREQUISITE: 31404200 Auto Orientation & Safety or PREREQUISITE: 31404301 Auto Orientation & Safety and COREQUISITE: 31404213 Auto Mech Hand & Torque Tools or PREREQUISITE: 31404303 Auto Mech Hand & Torque Tools

ENGINE REPAIR ENGINE BLOCK......provides the student with the skills and knowledge to perform service procedures on the engine block. This is part of the ASE A1 Certification. COREQUISITE: 31404200 Auto Orientation & Safety or PREREQUISITE: 31404301 Auto Orientation & Safety and COREQUISITE: 31404213 Auto Mech Hand & Torque Tools or PREREQUISITE: 31404303 Auto Mech Hand & Torque Tools

ENGINE REPAIR MECHANICAL SYSTEMS......provides the student with the skills and knowledge to perform engine mechanical diagnosis procedures. This is part of the ASE G1 Certification. COREQUISITE: 31404200 Auto Orientation & Safety or PREREQUISITE: 31404301 Auto Orientation & Safety and COREQUISITE: 31404213 Auto Mech Hand & Torque Tools or PREREQUISITE: 31404303 Auto Mech Hand & Torque Tools

HYDRAULIC AND MECHANICAL BRAKE SYSTEMS......provides student with the skills and knowledge to perform diagnosis and repair of master cylinders, brake lines, and brake power assist units. This is part of the ASE A5 Certification. COREQUISITE: 31404200 Auto Orientation & Safety or PREREQUISITE: 31404301 Auto Orientation & Safety and COREQUISITE: 31404213 Auto Mech Hand & Torque Tools or PREREQ: 31404303 Auto Mech Hand & Torque Tools

MANUAL CLUTCH AND TRANSMISSION SYSTEMS......provides student with the skills and knowledge to perform diagnosis and repair clutch and manual transmission systems. Part of the ASE A3 Certification. COREQUISITE: 31404200 Auto Orient & Safety or PREREQUISITE: 31404301 Auto Orient & Safety and COREQUISITE: 31404213 Auto Mech Hand & Torque Tools or PREREQUISITE: 31404303 Auto Mech Hand & Torque Tools

MANUAL DRIVETRAIN FLUID SERVICE......provides the student with the skills and knowledge to perform fluid service, diagnosis and repair. This is part of the Maintenance and Light Repair ASE G1 Certification. COREQUISITE: 31404200 Auto Orientation & Safety or PREREQUISITE: 31404301 Auto Orientation & Safety and COREQUISITE: 31404213 Auto Mech Hand & Torque Tools or PREREQUISITE: 31404303 Auto Mech Hand & Torque Tools

MANUAL, FOUR-WHEEL, AND AWD DRIVETRAINS......provides the student with the skills and knowledge to perform diagnosis and repair of manual transmissions, transaxes, as well as four-wheel and all-wheel drive systems. This is part of the ASE A3 Certification. COREQUISITE: 31404200 Auto Orientation & Safety or PREREQUISITE: 31404301 Auto Orientation & Safety and COREQUISITE: 31404213 Auto Mech Hand & Torque Tools or PREREQUISITE: 31404303 Auto Mech Hand & Torque Tools

SAFETY AND WELDING FUNDAMENTALS......introduces the learner to the world of welding, weld shop safety practices, welding terminology, and welding machine setup to industry standards. Learners will be introduced to the three major welding processes: SMAW, GMAW, and GTAW and will build skills welding with each process in the flat and horizontal positions while using the common welding joints found in industry. The learner will process material using the two major handhold cutting processes - Oxyfuel and PAC.

STEERING, SUSPENSION, INSPECTION, REPAIR......provides student with the skills and knowledge to perform diagnosis and repair of steering and suspension components. This is part of the ASE A4 Certification. COREQUISITE: 31404200 Auto Orientation & Safety or PREREQUISITE: 31404301 Auto Orientation & Safety and COREQUISITE: 31404213 Auto Mech Hand & Torque Tools or PREREQUISITE: 31404303 Auto Mech Hand & Torque Tools

WHEEL ALIGNMENT AND TIRE SERVICE......provides the student with the skills and knowledge to perform diagnosis and repair of wheel and tire systems, including wheel alignment, inspection, and repair. This is part of the ASE G1 Certification. COREQUISITE: 31404200 Auto Orientation & Safety or PREREQUISITE: 31404301 Auto Orientation & Safety and COREQUISITE: 31404213 Auto Mech Hand & Torque Tools or PREREQUISITE: 31404303 Auto Mech Hand & Torque Tools