

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

- Practice safe techniques when servicing automobiles
- Estimate automotive repair and order replacement parts
- Communicate and respond to customers' needs
- Use tools and equipment to diagnose and service automobile systems including:
 - Automotive internal combustion engines
 - Automotive transmission/transaxle systems
 - Automotive manual drive train and axle systems
 - Automotive steering and suspension steering systems
 - Automotive brake systems
 - Automotive electrical/electronic systems
 - Automotive heating and air conditioning systems
 - Engine performance systems
- Demonstrate professionalism appropriate for the auto service industry
- Perform maintenance and light repair of automotive steering and suspension systems
- Perform maintenance and light repair of automotive brake systems
- Perform maintenance and light repair of automotive electrical and electronic systems

CAREER AND EDUCATION ADVANCEMENT OPPORTUNITIES

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

ADMISSION AND PROGRAM ENROLLMENT STEPS

- Submit online application.
- Submit transcripts (high school & other colleges). NOTE: Official transcripts required for acceptance of transfer credits; Financial Aid may require.
- Complete the online Student Success Questionnaire.
- Schedule a Program Advising Session with your assigned advisor to plan your first semester schedule, review your entire plan of study, discuss the results of the Student Success Questionnaire.

APPROXIMATE COSTS

- \$138.90 per credit tuition (WI resident) plus \$8.33 per credit student activity fee. \$10 per credit online or hybrid fee. Material fee varies depending on course. Other fees vary by program. Visit gotoltc.edu/financial-aid/tuition-and-fees for details.
- Students are eligible to purchase Snap-On tools as part of their Term 1, 2 and 3 enrollments. The total tool cost is approximately \$2,400.

FINANCIAL AID

This program is eligible for financial aid. Visit gotoltc.edu/Financial-Aid or talk with your Career Coach about how to apply for aid.

SPECIAL NOTES

- The Spring Terms 2 and 4 are 17 weeks in length.
- You'll need to drive manual transmissions and have a valid driver's license.
- This program is certified by NATEF (National Automotive Technicians Education Foundation). Students are well-prepared to take the ASE (Automotive Service Excellence) Exam.

CONTACT

LTC Career Coach
920.693.1162 • CareerCoach@gotoltc.edu

Catalog No.	Class Title	Credit(s)
Term 1		
31809362	Psychology for Life	1
10106116	Computer Essentials	1
31404301	Auto Orientation and Safety	1
31442345	Auto Servicing Welding	1
31404370	Auto Brakes	3
31404312	Auto Mechanical Math and Measuring	1
31404311	Auto Electrical Math 1	1
31404310	Auto Introduction to Electricity 2	1
31404313	Auto Electricity Fundamentals 3	2
		12

Term 2		
31404372	Auto Suspension and Steering	3
31404376	Auto Engine Repair	4
31404323	Auto Wiring Mechanics 4	2
31404326	Auto Basic Electrical 5	3
		12

Term 3		
31801359	Communication Skills for the Workplace	2
31404328	Auto Air Conditioning	2
31404316	Differential and Manual Transmissions	3
31404327	Auto Electrical Systems 6	2
31404329	Auto Engine Performance 1	3
		12

Term 4		
31404334	Automatic Transmissions	5
31404333	Auto Engine Performance 2	2
31404385	Auto Engine Performance 3	5
		12

TOTAL 48

Curriculum and Program Acceptance requirements are subject to change. Program start dates vary; check with your advisor for details. The tuition and fees are approximate based on 2020-2021 rates and are subject to change prior to the start of the academic year.



AUTO AIR CONDITIONING...provides the student with a thorough knowledge of the operation, diagnosis, and repair procedures of heating and air conditioning systems used by domestic and import automotive manufacturers. U.S. EPA, Section 609, certification is included. **PREREQUISITE:** 31404301 Auto Orientation & Safety

AUTO BASIC ELECTRICAL 5...prepares the learner to diagnose and repair computer-controlled circuits. Learners will diagnose automotive networks, computerized body controls, and supplemental restraint systems. **COREQUISITE:** 31404323 Auto Wiring Mechanics 4

AUTO BRAKES...prepares the student with the theory of mechanical and hydraulic components of domestic and imported automotive braking systems, including antilock braking systems and traction controls; servicing techniques of new systems and procedures; and basic braking systems with hands-on applications. **COREQUISITE:** 31404301 Auto Orientation & Safety

AUTO ELECTRICAL MATH 1...provides the learner with the required math skills for automotive electrical troubleshooting. Students will use decimals, symbols, and formulas to quantify electricity.

AUTO ELECTRICAL SYSTEMS 6...prepares the learner to diagnose security, comfort, and convenience systems. Operation of collision avoidance and other driver aids will be covered. **PREREQUISITE:** 31404326 Auto Basic Electrical 5

AUTO ELECTRICITY FUNDAMENTALS 3...prepares the learner to troubleshoot inoperative electrical circuits using various tools and methods. Learners will learn to quantify electrical behavior in simple circuits using a digital volt ohm meter. **COREQUISITE:** 31404310 Auto Intro to Electricity 2

AUTO ENGINE PERFORMANCE 1...introduces the learner to the fundamentals of engine operation and lab scopes. Prepares the learner to diagnose and repair gasoline engine fuel, ignition, and performance concerns. **COREQUISITE:** 31404327 Auto Electrical Systems 6

AUTO ENGINE PERFORMANCE 2...prepares the learner to diagnose and repair basic computerized engine control feedback systems using specialized diagnostic equipment. **PREREQUISITE:** 31404329 Auto Engine Performance 1

AUTO ENGINE PERFORMANCE 3...prepares the learner to diagnose and repair advanced powertrain systems using specialized diagnostic equipment. Engine performance concerns on turbocharged, non-turbocharged, diesel, and hybrid engines will be addressed. **COREQUISITE:** 31404384 Auto Engine Performance 2

AUTO ENGINE REPAIR...prepares the student for engine reconditioning and related component repair procedures, engine rebuilding and cooling and lubrication systems, and service procedures. **PREREQUISITE:** 31404301 Auto Orientation & Safety

AUTO INTRODUCTION TO ELECTRICITY 2...introduces the learner to the characteristics and behaviors of electricity and electromagnetism. Prepares the learner to use basic electrical terms, tools, and theory for troubleshooting automotive electrical circuits. **COREQUISITE:** 31404311 Auto Electrical Math 1

AUTO MECHANICAL MATH AND MEASURING...prepares the learner with the required math skills needed for the automotive servicing industry. Students will perform a variety of measurements using U.S. Standard and metric measuring instruments. Conversions, units of measure, and calculations will also be discussed.

AUTO ORIENTATION AND SAFETY...prepares the learner to work effectively and efficiently in the automotive lab. Shop safety and proper procedures are emphasized. **Auto Servicing Welding**...prepares the student to make repairs commonly practiced in the auto industry, including safe techniques of brazing, cutting, SMAW, and GMAW.

AUTO SUSPENSION AND STEERING...prepares the student to perform testing and replacement procedures of suspension components; front and four-wheel alignment procedures for automotive and light trucks; and service procedures, including power steering diagnosis and repair. **COREQUISITE:** 31404301 Auto Orientation & Safety

AUTO WIRING MECHANICS 4...prepares the learner to interpret automotive wiring diagrams and troubleshoot automotive circuits. Learners will utilize wiring diagrams to diagnose inoperative lighting, starting, and charging systems. **COREQUISITE:** 31404313 Auto Electricity Fundamentals 3

AUTOMATIC TRANSMISSIONS...prepares the learner to develop skills in the operation and servicing of automatic transmissions. The learner will disassemble, inspect, repair and reassemble various automatic transmissions and learn proper procedures for diagnosis of these assemblies. **PREREQUISITE:** 31404301 Auto Orientation & Safety

COMMUNICATION SKILLS FOR THE WORKPLACE...prepares the student to develop paper job-search tools and job-related writing skills to increase job stability; introduces the students to team-building skills to resolve organizational problems; introduces the student to the skills of effective listening; prepares the student to respond to workplace criticism and praise; and introduces the student to interpersonal relationship skills, including effective interviewing skills, customer relations, and management/employee relations.

COMPUTER ESSENTIALS...covers computer technology and basic computer skills for the student who is just starting classes at LTC. This course will include topics related to uses of computer hardware and software, internet searching, e-mail, MyLTC, online courses, and an introduction to documents and presentations.

DIFFERENTIALS AND MANUAL TRANSMISSIONS...prepares the learner with a thorough knowledge of the operation, diagnosis, and repair procedures of differential assemblies and manual transmissions. The learner will disassemble, inspect and reassemble differentials and various manual transmissions. **PREREQUISITE:** 31404301 Auto Orientation & Safety

PSYCHOLOGY FOR LIFE...prepares the learner to select behavior modification techniques, demonstrate techniques for enhancing memory, analyze expressions of emotion, use conflict for common good, employ techniques to reduce conflict/frustration, use several methods to reduce stress, interpret personality types, ascertain contributors to perception, and apply methods of problem-solving.