

## 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

LTC credits transfer to over 30 universities. For more information visit [gotoltc.edu/future-students/transfer](http://gotoltc.edu/future-students/transfer).

### ADMISSIONS AND FIRST SEMESTER ENROLLMENT STEPS

- Submit online application.
- Complete the online Student Success Questionnaire.
- Schedule a Program Counseling Session with your assigned program counselor to plan your first semester schedule, review your entire plan of study, discuss the results of the Student Success Questionnaire.

*\*Submit transcripts and test scores (optional, highly recommended): College transcripts, along with high school transcripts and test scores from within the last five years, used for course registration. Official transcripts needed for transferring college credit(s) and for financial aid purposes.*

### APPROXIMATE COSTS

- \$141 per credit tuition (WI resident) plus \$8.46 per credit student activity fee. Material fee varies depending on course. Other fees vary by program. Visit [gotoltc.edu/financial-aid/tuition-and-fees](http://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](http://gotoltc.edu/Financial-Aid) or talk with your Admissions Advisor about how to apply for aid.

### SPECIAL NOTES

- The Spring Terms 2 and 4 are 17 weeks in length.
- This program is certified by ASE (Automotive Service Excellence), and students are well-prepared to take the ASE Exam.

### CONTACT

LTC Admissions Advisor  
 920.693.1162 • [Admissions@gotoltc.edu](mailto:Admissions@gotoltc.edu)

| Catalog No.   | Class Title                            | Credit(s)       |
|---------------|--|-----------------|
| <b>Term 1</b> |  |                 |
| 10106116      | Computer Essentials                    | 1               |
| 31404303      | Auto Mechanical Hand & Torque Tools    | 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               |
|               |  | <b>12</b>       |
| <b>Term 2</b> |  |                 |
| 31404372      | Auto Suspension and Steering           | 3               |
| 31404376      | Auto Engine Repair                     | 4               |
| 31404323      | Auto Wiring Mechanics 4                | 2               |
| 31404326      | Auto Basic Electrical 5                | 3               |
|               |  | <b>12</b>       |
| <b>Term 3</b> |  |                 |
| 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               |
|               |  | <b>12</b>       |
| <b>Term 4</b> |  |                 |
| 31404334      | Automatic Transmissions                | 5               |
| 31404333      | Auto Engine Performance 2              | 2               |
| 31404385      | Auto Engine Performance 3              | 5               |
|               |  | <b>12</b>       |
|               |  | <b>TOTAL 48</b> |

*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 learner with a thorough knowledge of the operation, diagnosis, and repair procedures for automotive air conditioning systems. The learner will perform recovery, evacuation and recharge tasks, system diagnosis, and will have the opportunity to become EPA Section 609 Certified. 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**...provides the learner with a thorough knowledge of automotive mechanical and hydraulic brake systems. The learner will diagnose, service, and repair automotive brake systems, antilock brake systems, and traction control systems. 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: 31404333 Auto Engine Performance 2 or PREREQUISITE: 31404382 Auto Engine Performance 1

**AUTO ENGINE REPAIR**...provides the learner with a thorough knowledge of automotive engine construction and operation. The learner will disassemble an engine, measure internal clearances, perform engine mechanical diagnostics, and service cooling systems. 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 HAND AND TORQUE TOOLS**...prepares the learner to use automotive hand and torque tools.

**AUTO MECHANICAL MATH AND MEASURING**...prepares the learner with the required math skills needed for the automotive servicing industry. The learner will perform a variety of measurements using U.S. Standard and metric measuring instruments, and will be provided the opportunity to achieve the NC3 Certifications of Completion. Training on conversions, units of measure, and calculations will also be provided.

**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**...provides the learner with a thorough knowledge of welding practices used in the automotive industry. Learners will perform a variety of welds using OAW, SMAW, GMAW, and GTAW.

**AUTO SUSPENSION AND STEERING**...provides the learner with a thorough knowledge of automotive steering systems, suspension systems, wheel and tire service, and wheel alignment. The learner will diagnose and repair front and rear suspension systems, perform wheel and tire service, diagnose and repair vehicle steering parts and components, and perform front and four-wheel alignments. 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