

AUTO COLLISION REPAIR & REFINISH TECHNICIAN

Catalog No. Class Title

Program Number 31-405-1 **Technical Diploma • Two Terms**

Credit(s)

ABOUT THE PROGRAM

If you love cars and are seeking a career that offers challenging work, provides abundant opportunities for growth and advancement, and rewards hard work and dedication, think seriously about the auto collision industry. Pursuing a career in the collision industry can take your interests and talents to the next level by developing highly sought-after skills. There has never been a better time to consider a career in an industry with such excellent growth potential. Jobs in the collision industry will never be outsourced, and this job saves lives by returning safe and properly repaired vehicles to the road.

PROGRAM OUTCOMES

- · Straighten collision damaged sheet metal.
- · Refinish automobile body parts.
- · Replace non-structural panels and parts.
- Perform auto collision welding procedures.

CAREER AND EDUCATION ADVANCEMENT OPPORTUNITIES

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

ADMISSIONS AND FIRST SEMESTER ENROLLMENT STEPS

- Submit online application.
- Complete the online Student Success Questionnaire.
- Schedule your 1st Time Program Counseling/Registration Session with your assigned Program Counselor/Success Coach to plan your first semester schedule, review your entire plan of study and 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.

FUTURE SEMESTER ENROLLMENT STEPS

- Complete online Student Success Tutorial prior to registering for second semester.

APPROXIMATE COSTS

- \$146.20 per credit tuition (WI resident) plus \$8.77 per credit student activity 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 tuition in Terms 1 and 2 at an approximate total cost of \$2,700.

FINANCIAL AID

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

SPECIAL NOTE

- The program is accredited by ASE (Automotive Service Excellence). Students are well prepared to take the ASE Exam.
- Students are prepared for and take two of the I-CAR (Inter-Industry Conference on Auto Collision Repair) Welding Certifications. They are the MIG (Metal Inert Gas) Steel and MIG (Metal Inert Gas) Aluminum I-CAR (Inter-Industry Conference on Auto Collision Repair) Welding Exams.
- This program accepts new students in both the fall and spring terms.
- · Learn when you want. Progress at your own pace. Receive personalized coaching and support. The full CBE definition may be found at gotoltc.edu/cbe.

This program offers flexible start dates throughout the year. Students can attend classes anytime Monday through Thursday from 9am-4:30pm.

CONTACT

LTC Admissions Advisor 920.693.1162 • Admissions@gotoltc.edu

Term 1 31405320 Introduction to Auto Collision 31405350 Auto Collision Panel Repair Fundamentals 1 Auto Collision Panel Repair Intermediate 31405351 31405352 Auto Collision Plastic Repair 31405356 Auto Collision Panel Alignment 31405357 Auto Collision Panel Replacement 31405358 Auto Collision Panel Repair Advanced 31405359 Auto Collision Suspension and Steering 31405360 Auto Collision Vehicle Air Conditioning 32405313 Hybrid and Electric Vehicles 31405361 Auto Collision Vertical Steel MIG Welding 31405362 Auto Collision Overhead Steel MIG Welding 31405341 Structural Analysis 31405363 Vehicle Anchoring Vehicle Structural Repair 31405364 31405365 Structural Steel Sectioning 1 31405366 Structural Steel Replacement 17

Term 2	
Introduction to Auto Refinishing	1
Auto Refinishing Surface Preparation	1
Auto Refinishing Masking	1
Auto Refinishing Color Application	1
Auto Refinishing Color Matching	1
Auto Refinishing Color Blending	1
Auto Refinishing Multiple Panel	1
Auto Refinishing Buffing and Polishing	1
MIG Aluminum Vertical Welding	1
MIG Aluminum Overhead Welding	1
Collision Center Customer Service	1
Collision Estimating and Repair Planning	1
Vehicle Repairs and Finishing	3
Vehicle Repairs and Finishing 2 OR	1
32405317 Internship – Auto Collision	
	Introduction to Auto Refinishing Auto Refinishing Surface Preparation Auto Refinishing Masking Auto Refinishing Color Application Auto Refinishing Color Matching Auto Refinishing Color Blending Auto Refinishing Multiple Panel Auto Refinishing Buffing and Polishing MIG Aluminum Vertical Welding MIG Aluminum Overhead Welding Collision Center Customer Service Collision Estimating and Repair Planning Vehicle Repairs and Finishing 2 OR

TOTAL 33

Curriculum and program acceptance requirements are subject to change. Program start dates vary; check with your program counselor for details. The tuition and fees are approximate based on 2023-2024 rates and are subject to change prior to the start of the academic year.

AUTO COLLISION OVERHEAD STEEL MIG WELDING...prepares the learner to demonstrate the four welds performed in the overhead position for the I-CAR Steel Welding Certification. Learner will demonstrate proper set up and maintenance of steel MIG welding equipment. COREQUISITE: 31405361 Auto Collision Vertical Steel MIG Welding

AUTO COLLISION PANEL ALIGNMENT...prepares the learner to demonstrate removal, installation and alignment of bolted on automotive body panels and parts. Learners will demonstrate removal and installation of door handles, door glass and related components. COREQUISITE: 31405320 Introduction to Auto Collision

AUTO COLLISION PANEL REPAIR ADVANCED ... prepares the learner to demonstrate panel repairs with multiple contours and compound curves. Learners will demonstrate glue-pulling dent repair (GPDR) and the proper use of paintless dent repair (PDR) tools. Learner will demonstrate efficiency and proper dent repair process. COREQUISITE: 31405351 Auto Collision Panel Repair Intermediate

AUTO COLLISION PANEL REPAIR FUNDAMENTALS...prepares the learner to demonstrate hammer and dolly techniques, proper application of body filler and finish sanding. Learner will demonstrate efficiency and proper dent repair processes. COREQUISITE: 31405320 Introduction to Auto Collision

AUTO COLLISION PANEL REPAIR INTERMEDIATE...prepares the learner to demonstrate heat shrinking techniques and the proper use of weld on pulling attachments and hydraulics to straighten a damaged panel. Learner will demonstrate efficiency and proper dent repair processes. COREQUISITE: 31405350 Auto Collision Panel Repair Fund

AUTO COLLISION PANEL REPLACEMENT...prepares the learner to demonstrate a proper door skin and rocker panel replacement and fit-up using specialized tools and squeeze type resistance spot welding. Learners will also demonstrate proper application of internal corrosion protection. COREQUISITE: 31405356 Auto Collision Panel Alignment

AUTO COLLISION PLASTIC REPAIR...prepares the learner to identify automotive plastics and to demonstrate proper nitrogen and airless welding repairs. Learner will demonstrate adhesive repairs to flexible and rigid plastics. Learner will demonstrate efficiency and proper plastic repair processes. COREQUISITE: 31405320 Introduction to Auto Collision

AUTO COLLISION SUSPENSION AND STEERING...prepares the learner to diagnose, inspect, adjust and repair suspension systems and demonstrate the proper removal and replacement of a MacPherson strut, lower control arm, steering knuckle and related components. COREQUISITE: 31405320 Introduction to Auto Collision

AUTO COLLISION VEHICLE AIR CONDITIONING ... prepares the learner to identify automotive refrigerants and to demonstrate proper evacuation, repair and recharge of automotive air conditioning systems. Learners can earn A/C certification from the U.S. Environmental Protection Agency.

AUTO COLLISION VERTICAL STEEL MIG WELDING...prepares the learner to demonstrate the six welds performed in the vertical position for the I-CAR Steel Welding Certification. Learner will demonstrate proper set up and maintenance of steel MIG welding equipment. COREQUISITE: 31405320 Introduction to Auto Collision

AUTO REFINISHING BUFFING AND POLISHING ... prepares the learner to properly demonstrate the removal of panel overspray, orange peel, sags, runs, sanding marks, contour mapping, low gloss condition, dirt and dust. Learner will demonstrate proper defect removal, sanding, buffing and polishing processes. COREQUISITE: 31405340 Introduction to Auto Refinishing

AUTO REFINISHING COLOR APPLICATION...prepares the learner to demonstrate the proper application of a solvent basecoat-clearcoat paint finish. Learner will demonstrate proper spray-gun set up, spray technique, basecoat defect removal and clearcoat application. COREQUISITE: 31405340 Introduction to Auto Refinishing

AUTO REFINISHING COLOR BLENDING...prepares the learner to identify poor hiding colors and determine necessary action. Learner will properly demonstrate color blending methods, the application of multi-stage coats for panel blending and reverse blending techniques. COREQUISITE: 31405370 Auto Refinishing Color Matching

AUTO REFINISHING COLOR MATCHING...prepares the learner to use the color wheel and to identify alternate color formulas. Learner will create test panels with a proper color match and demonstrate the modification of color formulas to achieve a blendable color match. COREQUISITE: 31405369 Auto Refinishing Color Application

AUTO REFINISHING MASKING...prepares the learner to properly demonstrate back masking, the application of plastic bag to vehicle and masking parts suspended from racks or stands. Learner will demonstrate the proper use of fine-line, aperture and lifting tapes. COREQUISITE: 31405367 Auto Refinishing Surface Preparation

AUTO REFINISHING MULTIPLE PANEL...prepares the learner to demonstrate the proper application of a solvent basecoat-clearcoat paint finish to multiple adjacent automotive body panels. Learner will troubleshoot paint problems and demonstrate proper panel overlap producing an industry quality refinish. COREQUISITE: 31405340 Introduction to Auto Refinishing

AUTO REFINISHING SURFACE PREPARATION...prepares the learner to properly demonstrate proper surface preparation for primer surfacer, sealer, basecoat and clearcoat operations. Learner will demonstrate wet and dry preparation methods on steel and plastic automotive body panels and parts. COREQUISITE: 31405340 Intro to Auto Refinishing

COLLISION CENTER CUSTOMER SERVICE...prepares the learner to create positive customer relationships for collision repair businesses. Learner will identify customer concerns, needs and expectations and project positive attitude, cooperation and professionalism during the repair process.

COLLISION ESTIMATING AND REPAIR PLANNING...prepares the learner to demonstrate vehicle tear-down and inspection. Learner will identify damage to energy absorbing components and determine repairability of vehicle components made from various materials. Learner will create and interpret damage estimates.

HYBRID AND ELECTRIC VEHICLES...prepares the learner to identify automotive high voltage systems and to demonstrate proper shut down and initiation procedures. Learners will demonstrate the proper removal and installation of vehicle (SRS) supplemental restraint system components and test electrical circuits.

INTERNSHIP - AUTO COLLISION...requires students to complete 72 hours (1 credit) of work in an automotive collision repair facility. Students are responsible for seeking and obtaining the internship position. Course requirements include maintaining a log of work activities, identifying and receiving approval from the job supervisor and instructor, and completing a work-related project. Students may meet periodically at LTC. COREQUISITE: 31405377 Vehicle Repairs and Finishing

INTRODUCTION TO AUTO COLLISION...prepares the learner to work in the lab environment with proper personal protective equipment. An overview of the collision repair industry will be provided and learner will demonstrate vehicle lift safety and the proper use of hand tools and shop equipment.

INTRODUCTION TO AUTO REFINISHING...prepares learner to work in the refinishing lab environment with proper personal protection equipment. Learner will demonstrate proper mixture of paint products and the proper use and care of spray guns and related tools.

MIG ALUMINUM OVERHEAD WELDING...prepares the learner to demonstrate the four welds performed in the overhead position for the I-CAR Aluminum Welding Certification. Learner will demonstrate proper set up and maintenance of Aluminum MIG welding equipment. COREQUISITE: 31405374 MIG Aluminum Vertical Welding

MIG ALUMINUM VERTICAL WELDING...prepares the learner to demonstrate the six welds performed in the vertical position for the I-CAR Aluminum Welding Certification. Learner will demonstrate proper set up and maintenance of Aluminum MIG welding equipment. COREQUISITE: 31405362 Auto Collision Overhead Steel MIG Welding

STRUCTURAL ANALYSIS...prepares the learner to demonstrate vehicle measuring using mechanical and electronic systems. Learner will interpret vehicle dimension data and demonstrate proper vehicle upper body, lower body and component measuring. COREQUISITE: 31405320 Introduction to Auto Collision

STRUCTURAL STEEL REPLACEMENT...prepares the learner to properly demonstrate the attachment and replacement of structural components using squeeze type resistance welding, riveting, structural adhesive and weld bonding. Learners will demonstrate efficiency and follow OEM processes and recommendations. COREQUISITE: 31405365 Structural Steel Sectioning

STRUCTURAL STEEL SECTIONING...prepares the learner to properly demonstrate welding, cutting and joining methods necessary to section a unibody frame rail. Learners will demonstrate efficiency and proper sectioning processes and prepare to earn the I-Car SPS05 Steel Sectioning Certification. COREQUISITE: 31405364 Vehicle Structural Repair

VEHICLE ANCHORING...prepares the learner to demonstrate proper anchoring for unibody and full frame vehicles. Learner will demonstrate the proper use of pinch-weld clamps, truck clamps and dedicated holding fixtures to secure vehicle to frame straightening equipment. COREQUISITE: 31405341 Structural Analysis

VEHICLE REPAIRS AND FINISHING...prepares the learner to demonstrate mastery of collision repair and refinishing skills on live customer repairs. Learner will demonstrate efficiency and proper repair processes. Repair work performed by learner will be meet or exceed instructor and customer expectations. PREREQUISITES: 31405358, 31405352, 31405357, 31405359, 31405360, 31405366, 32405313; COREQUISITES: 31405375, 31405368, 31405371, 31405372, 31405373

VEHICLE REPAIRS AND FINISHING 2...prepares the learner to continue to demonstrate mastery of collision repair and refinishing skills on live customer repairs. Learner will demonstrate efficiency and proper repair processes. Repair work performed by learner will be meet or exceed instructor and customer expectations. COREQUISITE: 31405377 Vehicle Repairs and Finishing

VEHICLE STRUCTURAL REPAIR...prepares the learner to analyze and straighten vehicle structural damage and properly demonstrate pulling using hydraulic powered equipment, unibody and full frame alignment and cold stress relief methods necessary to repair vehicle structural parts. COREQUISITE: 31405363 Vehicle Anchoring