

Program Number 32-405-1 Technical Diploma • Four Terms

ABOUT THE PROGRAM

Whether you own a classic car in need of restoration or have the misfortune of owning a new car crumpled in an accident, having a highly skilled auto collision technician work on your car is your top priority. This program prepares learners to enter the competitive collision repair industry. The Auto Collision Repair & Refinishing Technician program is for driven, highly motivated individuals who like hands-on type work and who enjoy seeing the results of their labors.

PROGRAM OUTCOMES

- Straighten collision damaged sheet metal.
- Refinish automobile body parts.
- Replace non-structural panels and parts.
- Perform auto collision welding procedures.
- Repair plastic and composite body parts.
- Repair and replace moveable automotive glass.
- Repair collision damaged light truck frames and unibody structural components.
- Replace restraint systems.
- Perform automotive electrical and electronic systems diagnosis and repair.
- Perform automotive HVAC, steering, suspension, and mechanical systems diagnosis and repair.
- Estimate collision damage repair costs.
- Qualify for Automotive Service Excellence Collision Repair Exam.

CAREER AND EDUCATION ADVANCEMENT OPPORTUNITIES

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

PROGRAM ADMISSIONS STEPS

- Work with Career Coach to:
 - Submit application and \$30 fee.
 - Submit official transcripts (high school and other colleges).

ENROLLMENT PROCESS

- Work with program Academic Advisor to:
 - Complete the OSHA Medical Evaluation questionnaire.
 - Complete Functional Abilities Statement of Understanding form.
 - Meet to plan your first semester schedule, review your entire plan of study, and complete any additional enrollment requirements.

APPROXIMATE COSTS

- \$142 per credit (resident)
- Other fees vary by program (books, supplies, materials, tools, uniforms, health related exams, etc.) Visit gotoltc.edu/financial-aid/tuition-and-fees for details.

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 NOTE

- The program is certified by NATEF (National Automotive Technicians Education Foundation). Students are eligible for I-CAR Welding Certification Testing. Students are well prepared to take the ASE (Automotive Service Excellence) Exam.
- Students are required to purchase Snap-On tools. Tool cost averages \$3,200 as you progress through the program.

CONTACT

LTC Career Coach
920.693.1162 • CareerCoach@gotoltc.edu

Catalog No.	Class Title	Credit(s)
Term 1		
31405320	Auto Collision Orientation and Safety	1
31405322	Auto Collision Panel Repair	3
31405304	Auto Collision Electrical Mechanical	3
31405342	Auto Refinishing Masking/Preparation	2
31405324	Auto Collision Plastic and Composite Panel Repair	2
31801359	Communication Skills for the Workplace	2
		13
Term 2		
31405332	Auto Collision Wire Welding	2
31405340	Auto Refinishing Orientation/Safety	1
31405348	Auto Refinishing Water Borne Systems	3
31405346	Auto Refinishing Color Matching/Blending	3
31405326	Auto Collision Panel Replacement and Alignment	3
31405344	Auto Refinishing Multiple Panel	3
31809362	Psychology for Life	1
		16
Summer Term		
31405328	Auto Collision Structural Analysis	2
		2
Term 3		
32405301	Aluminum Repair Methods	3
32405305	Vehicle Anchoring and Structural Repair	4
32405309	Structural Steel Sectioning	3
32405313	Collision Repair for Hybrid and Electric Vehicles	1
32405317	Internship 1 - Auto Collision	1
		12
Term 4		
31405308	Damage Appraisal/Estimating	2
32405333	Collision Repair Customer Service	1
32405321	Metal Shaping	3
32405341	Collision Repair Custom Painting	2
32405325	Cycle Time and Shop Production 1	4
32405329	Cycle Time and Shop Production 2	4
32405337	Internship 2 - Auto Collision	1
		17
		TOTAL 60

Please note that Spring semester classes end mid-June.

Curriculum and Program Acceptance requirements are subject to change. Program start dates vary; check with your advisor for details.



ALUMINUM REPAIR METHODS...provides the learner with skills to complete repair procedures unique to vehicles with aluminum structures using specialty tools and methods. OEM repair methods from major automotive manufacturers are taught and assessed in this course. Learners have the opportunity to earn the I-Car WCA03 Aluminum Weld Test Certification. **PRECOREQUISITES:** 31405344 Auto Refinishing Multiple Panel and 31405304 Auto Collision Electrical Mechanical

AUTO COLLISION CUSTOMER SERVICE...provides learners with the knowledge and skills needed to provide excellent customer service. Learn skills to Identify and resolve concerns in a professional manner. Build positive customer relationships for collision repair businesses. **PREREQUISITE:** 32405313 Collision Repair for Hybrid and Electric Vehicles

AUTO COLLISION ELECTRICAL MECHANICAL...prepares the learner to troubleshoot auto collision electrical circuits; examine basic electrical circuits; interpret electrical circuit diagrams; service an automotive battery, lighting system, and passive restraint systems; and perform soldering and splicing of electrical components. Students will learn how to diagnose and service air conditioning systems and become EPA certified. This course is designed to save time and effort in auto collision repair. **COREQUISITE:** 31405324 Auto Collision Plastic Composite Panel Repair

AUTO COLLISION ORIENTATION AND SAFETY...introduces the learner to the auto collision course procedures, practices, and grading policy and develops safe work habits and attitudes. Many of the hand and power tools are identified. **CONDITION:** 324051 Auto Collision Repair & Refinish Technician or 314051 Auto Collision Repair Admission Requirements Met

AUTO COLLISION PANEL REPAIR...provides the learner with hands-on activities to gain the skills necessary for metal finishing, panel straightening, application of body fillers, and use of hydraulics to straighten panels and make body panel adjustments. **COREQUISITE:** 31405320 Auto Collision Orientation & Safety; and **CONDITION:** 324051 Auto Collision Repair & Finish Technician or 314051 Auto Collision Repair Admission Requirements Met

AUTO COLLISION PANEL REPLACEMENT AND ALIGNMENT...prepares the student to apply straightening, welding, restoring, corrosion protection, alignment, and panel replacement skills. **COREQUISITE:** 31405346 Auto Refinishing Color Matching/Blending

AUTO COLLISION PLASTIC AND COMPOSITE PANEL REPAIR...prepares the learner to work on repairing damaged plastic panels using adhesives and airless welding techniques. The repair of SMC, FRP, ABS, TPO, and other popular plastics are taught. **COREQUISITE:** 31405342 Auto Refinishing Masking/Preparation

AUTO COLLISION STRUCTURAL ANALYSIS...provides the learner with knowledge and hands-on experiences in measuring and analyzing frames, body panels, and alignments using tape measures, tram and self-centering gauges, and computerized measuring system. **PREREQUISITES:** 31405320 Auto Collision Orientation & Safety and 31405340 Auto Refinishing Orientation/Safety

AUTO COLLISION WIRE WELDING...introduces the learner to information and skills necessary to safely operate gas metal arc welding, aluminum welding, and oxyacetylene cutting as it applies to auto collision. Upon completion, the student is prepared to take the I-CAR steel weld qualification test. **COREQUISITE:** 31405344 Auto Refinishing Multiple Panel

AUTO REFINISHING COLOR MATCHING/BLENDING...prepares the student with an understanding of color movement using the color wheel and the differences in spray gun technique as it applies to blending and how to solve paint color matching problems. **COREQUISITE:** 31405348 Auto Refinishing WaterBorne Systems

AUTO REFINISHING MASKING/PREPARATION...enhances the learner's ability to understand automotive finishes and the equipment, paint area, and refinish area and to develop a thorough understanding of surface preparation as it relates to vehicle refinishing. **COREQUISITE:** 31405322 Auto Collision Panel Repair

AUTO REFINISHING MULTIPLE PANEL...provides the learner with the skills to spray complete panels and vehicles using the latest spray technology and equipment, troubleshoot paint problems, and detail the finish to a preaccident condition. **COREQUISITE:** 31405326 Auto Collision Panel Replacement & Alignment

AUTO REFINISHING ORIENTATION/SAFETY...introduces the learner to auto collision and refinishing course procedures, practices, and grading policy and develops safer work habits and attitudes. **CONDITION:** 324051 Auto Collision Repair & Refinish Technician or 314051 Auto Collision Repair Admission Requirements Met

AUTO REFINISHING WATER BORNE SYSTEMS...provides the learner with specific knowledge and skills necessary to work with water borne products. Learners will be introduced to application methods, mixing and other considerations unique to water borne refinishing systems. **COREQUISITES:** 31405340 Auto Refinishing Orientation/Safety and **CONDITION:** 324051 Auto Collision Repair & Refinish Technician or 314051 Auto Collision Repair Admission Requirements Met

COLLISION REPAIR CUSTOM PAINTING...introduces the learner to many popular custom painting techniques. Students will have an overview of hand painted pinstripe application, multi-stage candy coat finishes, using an airbrush, masking methods, and equipment cleaning and maintenance. **COREQUISITE:** 32405321 Metal Shaping

COLLISION REPAIR FOR HYBRID AND ELECTRIC VEHICLES...provides the learner with the knowledge and skills necessary in order to properly and safely repair vehicles equipped with high voltage systems. Learners will shut down and initiate high voltage vehicle systems, assess damaged components unique to hybrid and electric vehicles and learn the fundamentals of how hybrid and electric vehicle systems operate. **COREQUISITE:** 32405309 Structural Steel Sectioning

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.

CYCLE TIME AND SHOP PRODUCTION 1...prepares learners to enter the workforce by applying their practical skills and performing live customer work. This course reinforces the team approach as it applies to shop production and repair work performed by students and will be assessed using real-world criteria. **COREQUISITE:** 32405321 Metal Shaping

CYCLE TIME AND SHOP PRODUCTION 2...learners prepare to enter the workforce by applying their practical skills and performing live customer work. This course reinforces cycle time and shop production by performing vehicle repairs using specialized cells and the assembly line method. Repair work performed by students will be assessed using real-world criteria. **COREQUISITE:** 32405325 Cycle Time and Shop Production 1

DAMAGE APPRAISAL/ESTIMATING...introduces the learner to various damage appraisal methods and provides the skills necessary to create computerized estimates and work orders with an emphasis on customer service. **COREQUISITE:** 32405333 Collision Repair Customer Service

INTERNSHIP 1 - 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:** 32405313 Collision Repair for Hybrid and Electric Vehicles

INTERNSHIP 2 - AUTO COLLISION...requires students to complete 72 hours (1 credit) of performing work in an automotive collision repair facility. In addition, students will develop and academic portfolio which reflect upon the program outcomes, core abilities, career goal, educational goal, and course summary of learning. Students will meet with their program instructor to explain their portfolio and complete the technical skills attainment documentation. **COREQUISITE:** 32405329 Collision Repair Customer Service

METAL SHAPING...prepares learners to develop metal-working skills to the next level in this advanced auto-body course. Students will learn to shape steel vehicle panels using the English wheel, power hammer, and bead roller as well as other metal shaping tools. Learners have the opportunity to create their own unique parts and designs. **PREREQUISITES:** 31405304 Auto Collision Electrical Mechanical and 31405328 Auto Collision Structural Analysis and **COREQUISITE:** 32405329 Cycle Time and Shop Production 2

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.

STRUCTURAL STEEL SECTIONING...prepares the student to apply steel mig welding skills combined with steel sectioning methods to perform proper steel sectioning procedures. Learners will perform sectioning procedures approved by OEM manufacturers and prepare to earn the I-Car SPS05 Steel Sectioning Certification. **COREQUISITE:** 32405305 Vehicle Anchoring and Structural Repair

VEHICLE ANCHORING AND STRUCTURAL REPAIR...provides the learner with skills to use state of the art Car-O-liner equipment such as the Evolution jig type anchoring systems and the B73 truck clamp system to properly anchor vehicles for structural repairs. Learners will gain valuable experience using the Car-O-liner vehicle electromechanical measuring system. Structural repairs will be made to vehicles according to OEM guidelines. **COREQUISITE:** 32405301 Aluminum Repair Methods