

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 & Refinish 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.

ADMISSIONS STEPS

- Work with Admissions Specialist to:
 - Submit application and \$30 fee.
 - Complete an assessment for placement (Accuplacer or ACT).
 - Submit official transcripts (high school and other colleges).
 - Complete the OSHA Medical Evaluation questionnaire.
- Meet with program advisor/counselor to discuss program details.

APPROXIMATE COSTS

- \$132 per credit (resident)
- \$198 per credit (out-of-state 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.

PLACEMENT SCORES

Accuplacer/ACT scores will be used to develop your educational plan. Contact your program advisor/counselor for details.

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 average \$3,200 as you progress through the program.

CAREER & EDUCATION ADVANCEMENT OPPORTUNITIES

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

CONTACT

Chou Yang, Admissions Specialist
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Catalog No.	Class Title	Credit(s)
Term 1		
31405304	Auto Collision Electrical Mechanical	3
31405320	Auto Collision Orientation and Safety	1
31405322	Auto Collision Panel Repair	3
31405324	Auto Collision Plastic and Composite Panel Repair	2
31405342	Auto Refinishing Masking/Preparation	2
31801359	Communication Skills for the Workplace	2
		13
Term 2		
31405340	Auto Refinishing Orientation/Safety	1
31405346	Auto Refinishing Color Matching/Blending	4
31405348	Auto Refinishing Water Borne Systems	3
31405326	Auto Collision Panel Replacement and Alignment	3
31405344	Auto Refinishing Multiple Panel	3
31405328	Auto Collision Structural Analysis	3
31405332	Auto Collision Wire Welding	2
31809363	Challenging Issues	1
		20
Term 3		
31405308	Damage Appraisal/Estimating	1
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
		13
Term 4		
32405321	Metal Forming and Custom Painting	3
32405325	Cycle Time and Shop Production 1	4
32405329	Cycle Time and Shop Production 2	4
32405333	Collision Repair Customer Service	2
32405337	Internship 2 - Auto Collision	1
		14
		TOTAL 60

Please note that this program will end mid-June.

*Curriculum and Program Acceptance requirements are subject to change.
Program start dates vary; check with your advisor/counselor 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. **PREREQUISITES:** 31405328 Auto Collision Structural Analysis 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. **COREQUISITE:** 32405329 Cycle Time and Shop Production 2

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.

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 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 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. Some structurally damaged panels may be replaced if time and vehicle damage exist. **COREQUISITE:** 31405332 Auto Collision Wire Welding

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, finish defects, causes, and cures. **COREQUISITE:** 31405348 Auto Refinishing Water Borne 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 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 program requirements met

CHALLENGING ISSUES...prepares the learner to understand the challenging occupational and social issues and problems that shape the direction of today's work world and become aware of what those contemporary issues are, how the issues impact the student, and how the student can make changes when necessary.

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 Forming and Custom Painting

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:** 32405313 Collision Repair for Hybrid and Electric Vehicles

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:** 31405308 Damage Appraisal/Estimating

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 FORMING AND CUSTOM PAINTING...prepares learners to develop metal-work and painting skills to the next level in this advanced auto-body course. Students will learn to form steel vehicle panels using the English wheel, panel stretcher, slip roll and planisher. Learners are provided with an overview of custom painting techniques and have the opportunity to create their own unique parts and designs. **PREREQUISITES:** 31405304 Auto Collision Electrical Mechanical and 31405328 Auto Collision Structural Analysis

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 vision electromechanical measuring system. Structural repairs will be made to vehicles according to OEM guidelines. **COREQUISITE:** 32405301 Aluminum Repair Methods