

Auto Collision Repair and Refinishing Technician

61-credit Technical Diploma

About the Program

Today’s auto collision industry provides great opportunities for a fast-paced, high-tech career. Students in the Automotive Collision Repair and Refinishing Technician program will gain skills in metal finishing, plastic and composite repair, bolted and welded panel replacement, painting techniques, frame straightening, auto collision estimating and welding. In addition the program offers skills in basic automotive mechanicals including, wheel alignment, brakes, air conditioning and automotive electronics.

Students will attend classes at WCTC’s Collision Technology Center and use the latest high-tech equipment found in the industry: state-of-the-art frame repair systems, dimension and measuring equipment, “down draft” prep stations and spray booths.

Successful graduates of the four semester program will have the credentials necessary to gain entry-level employment in today’s modern auto body shops. An internship course allows students to obtain real-life experience while earning income from an employer. I-CAR industry certification (gold points) can be earned as a built-in part of the program.

Potential Job Titles

- Auto Body Technician
- Collision Repair Technician
- Paint Specialist
- Metal Repair Specialist
- Frame and Unibody Repair Specialist

Admission Process

- Fill out a WCTC application
- Send \$30 non-refundable application fee
- Send high school transcript or GED/HSED
- Send any previous college transcripts
- Complete Skills Assessment test (COMPASS)
- Begin pursuing Financial Aid options
- Select high school courses may qualify the student for advance standing in this program
- Students are responsible to purchase and have available their own tools, toolboxes, safety glasses, safety shoes and painting respirator
- Additional costs could be incurred for respirator fitting

For more information, call 262.691.5200.

Required Courses		Credits
First Semester		
405-100	Auto Collision Fundamentals	2
405-102	Collision Panel Repair & Prep	5
442-160	Auto Collision Welding	2
602-130	Alignment/Suspension/Steering	3
804-304	Industrial Math I	2+
Total semester credits		14
Second Semester		
405-101	Auto Collision Estimating	2
405-104	Collision Panel Replace/Align	4
405-105	Structural Analysis	2
405-135	Collision Repair Electronics	3
602-170	Automotive Brakes	3
801-311	Communication in the Workplace	2+
Total semester credits		16
Third Semester		
405-107	Auto Refinishing & Detailing	5
405-108	Plastics/Composite Repair	2
405-110	Advanced Structural Repair	4
442-161	Adv Auto Collision Welding	2
806-139	Survey of Physics	3
Total semester credits		16
Fourth Semester		
102-100	Contemporary Business	3
405-106	Auto Color Adjustment	4
405-111	I-CAR Certification	2
405-112	Auto Collision Internship	3
405-119	Auto Collision Estimating - Advanced	1
602-150	Automotive Temperature Control	2
Total semester credits		15
+ Proficiency exam available		
<i>Curriculum is current as of catalog printing.</i>		
<i>The most current curriculum requirements for graduation will be provided upon admission to program, or review at www.wctc.edu.</i>		

Auto Collision Repair and Refinishing Technician Required Courses

102-100 Contemporary Business 3
Develop a basic understanding of the principles and terminology used in the business world, and gain insight into the fields of marketing, business management, data processing, and accounting.

405-100 Auto Collision Fundamentals 2
Gain an introduction to the auto collision industry. Examine available occupations, ASE Certifications, I-CAR Certification, pay rates, and job expectations. Learn basic hand tool usage, safety requirements, and correct use of lifting equipment.

405-101 Auto Collision Estimating 2
Learn to correctly prepare an estimate for a collision-damaged vehicle. Be able to identify all component parts on the vehicle so as to use the correct terminology when producing an estimate. Prerequisites: 405-100 Auto Collision Fundamentals (or concurrent)

405-102 Collision Panel Repair & Prep 5
Gain an understanding of sheet metal panel straightening techniques. Learn how to apply polyester body fillers and perform correct sanding techniques. Learn the correct use of hand and air tools to straighten panels and prepare surfaces for refinishing. Be introduced to spray gun use through primer and sealer applications and the correct preparations for the application of topcoats. Prerequisites: 405-100 Auto Collision Fundamentals (or concurrent)

405-104 Collision Panel Replace/Align 4
Apply straightening and welding skills along with procedures for restoring corrosion protection, the importance of fastener selection, panel replacement and alignment procedures including interior and exterior trim components. Prerequisites: 405-100 Auto Collision Fundamentals (or concurrent)

405-105 Structural Analysis 2
Discover different body and frame configurations. Techniques to use universal measuring data and measuring systems to correctly determine the extent of collision damage will be utilized. Prerequisites: 405-100 Auto Collision Fundamentals

405-106 Auto Color Adjustment 4
Build on previous refinishing skills by applying knowledge of color movement theory, correct color selection and mixing techniques along with spray gun selection and set-up to solve color miss-match problems.

405-107 Auto Refinishing & Detailing 5
Build on refinishing skills previously learned by demonstrating correct use of spray gun application techniques and appropriate use and selection of materials necessary to apply refinish products to industry standards. Additionally, identify and correct paint defects and learn procedures to detail vehicles to customer ready condition. Demonstrate these skills during refinishing, paint mixing and detailing operations while repairing damaged "live-work" vehicles. Prerequisites: 405-100 Auto Collision Fundamentals

405-108 Plastics/Composite Repair 2
Develop techniques to identify the different types of plastics. Plastic welding and composite repair will also be covered. Prerequisites: 405-100 Auto Collision Fundamentals

405-110 Advanced Structural Repair 4
Building upon previous skills, replace welded steel panels, structural members such as rails, rockers and pillars, and use hydraulic equipment while applying corrective forces to unibody and full frame vehicles with structural damage. Prerequisites: 405-105 Structural Analysis (or concurrent)

405-111 I-CAR Certification 2
Take nine I-CAR foundational courses and upon successful completion of the I-CAR assessments have the opportunity to earn I-CAR Gold Points. A combination of instructor led, self-paced, and independent student study formats will be used. Prepare for ASE certification examinations. Prerequisites: 405-100 Auto Collision Fundamentals (or concurrent)

405-112 Auto Collision Internship 3
Take part in a supervised employment period of planned, guided student learning to obtain "real world" hands-on experience in the collision repair field. Competencies learned in the classroom/lab will be applied and re-enforced at the workplace. NOTE: Since this internship is considered employment, potential employers may reserve the right to perform individual background checks and/or drug screens. Prerequisites: 405-100 Auto Collision Fundamentals (or concurrent)

405-119 Auto Collision Estimating - Advanced 1
Building on previously obtained skills, become proficient in the preparation of electronic estimates including the downloading of estimate files and digital photographs of damaged vehicles. Learn how the estimate generates parts lists, repair orders, and technician specialty repair assignments. Insurance industry processing of totaled vehicles and how it relates to the collision repair industry will be included. Prerequisites: 405-101 Auto Collision Estimating

405-135 Collision Repair Electronics 3
Obtain the skills required to apply the fundamentals of automotive electronics. This includes applications of the principles of Ohm's law, circuit requirements, current flow, voltage symbols, and reading vehicle schematics. Instruction will include computer modules and other electronic control devices, test meters and use of diagnostic scan tools relating to collision damaged vehicles. Personal safety will be stressed related to working with low and high voltage electrical devices. Prerequisites: 405-100 Auto Collision Fundamentals (or concurrent)

442-160 Auto Collision Welding 2
Learn and apply safe and correct welding skills typically used in auto collision applications.

442-161 Adv Auto Collision Welding 2
Build on previous skills attained during the 442-160 Auto Collision Welding course. The majority of the class will be spent on MIG/spool-gun techniques, and aluminum welding to I-CAR standards while preparing for the I-CAR MIG welding certification test. In addition, gain further skills in the TIG welding process. Prerequisites: 442-160 Auto Collision Welding

602-130 Alignment/Suspension/Steering 3
Participate in the inspection, diagnosis and repair of automotive steering and suspension systems. Demonstrate wheel alignment procedures and related steering and suspension system service. Hands-on experience will be gained in power and manual steering gears and comprehensive training in wheel mounting and balancing. Prerequisites: 602-100 Automotive Fundamentals (or concurrent) or 405-100 Auto Collision Fundamentals (or concurrent)

602-150 Automotive Temperature Control 2
Study the theory, operation, maintenance, and repair of all late model air conditioning systems, including intricately designed systems that are controlled by the computer. Prerequisites: 602-110 Electrical Systems & Acc (or concurrent) or 404-332 Automotive Electrical Systems (or concurrent) or 405-135 Collision Repair Electronics (or concurrent)

602-170 Automotive Brakes 3
Service drum and disc brake systems and be introduced to power brakes, both vacuum and hydra-boost types. In addition, use scan tools as a diagnostic technique for anti-lock brake system problems and other brake-related issues. Prerequisites: 602-100 Automotive Fundamentals (or concurrent) or 405-100 Auto Collision Fundamentals (or concurrent)

801-311 Communication in the Workplace 2
Expand level of awareness and skill in interpersonal communications, both oral and written, while focusing on securing and maintaining a job. Develop competencies in the area of listening, sending, and employability skills.

804-304 Industrial Math I 2
Explore the topics of applied arithmetic and algebra during this individualized course. Study concepts related to measurement, fractions, decimals, percents, ratio and proportion, signed numbers, formula substitution, solutions to equations, tapers and gears.

806-139 Survey of Physics 3
Emphasis is on understanding basic physics concepts through laboratory investigation and applications. Topics include kinematics, dynamics, work, energy, power, temperature, heat, waves, electricity, magnetism, electromagnetic waves, optics, and atomic and nuclear physics. Prerequisites: 804-115 College Technical Math I or 804-151 Technical Math I or 804-170 Math for Electronics or 804-110 Elem Algebra w Apps (or concurrent) or 804-106 Intro to College Math (or concurrent)