



Collision Repair Technology

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Office Hours: 7:30 AM - 8:00 AM
2:55 PM - 3:15 PM
Program Hours: 8:00 AM - 11:10 AM; 11:45 AM - 2:55 PM

Breaks are at instructor's discretion (maximum 15 min.)

Program Description:

The Collision Repair Program uses state-of-the-art I-CAR (Inter-Industry Conference on Auto Collision Repair) Enhanced Delivery Curriculum to meet the industry standards. Approximately 50 percent will include program instruction and 50 percent will be hands-on lab activities. Students will learn how to use modern hand and power tool equipment, computer-estimating software, and the handling of typical collision repair tasks. The learning environment will be instructor led and will consist of PowerPoint presentations, lecture, textbooks, video, and lab hands-on tasks. Each student will be required to keep notebook(s) that contains course information, materials for workplace skills, and reference material. Students are expected to be prepared at the start of class for classroom and/or lab.

Job shadowing and On-the-Job Training (OJT) is an opportunity for students who meet specified qualifications for the program and school. When these qualifications are met a student is eligible to participate in these activities. These options assist a student in possible job placement as well as the learning of additional industry knowledge and practices.

Students are required to follow the program dress code and safety policies at **all** times. The required tools must be available by the program deadline to assure the student can complete the course/lab assignments.

The Collision Repair Program's mission is to educate students with a foundation of knowledge and skills for an entry-level position in the industry. This industry requires continuous learning, even after completing the program, because the trade is constantly evolving.

Program Courses:

CLR100	Orientation/Safety	CLR220	Non-Structural Repair III
CLR110	Estimate/Damage I	CLR225	Non-Structural Repair IV
CLR120	Non-Structural Repair I	CLR230	Structural Repair II
CLR125	Non-Structural Repair II	CLR235	Structural Repair III
CLR130	Structural Repair I	CLR237	Structural Repair IV
CLR140	Refinishing I	CLR240	Refinishing II
CLR150	Mechanical/Electrical I	CLR245	Refinishing III
CLR160	Workplace Skills I	CLR247	Refinishing IV
CLR200	Estimate/Damage II	CLR250	Mechanical/Electrical II
		CLR260	Workplace Skills II
		CLR270	Collision Repair OJT

Method of Instruction:

Each course includes lecture, videos, demonstrations, speakers, handouts/worksheets, computer-based activities, estimating software, practice labs, and outside customer work.

The first half of the program concentrates on learning foundational skills which require a significant amount of lecture and class work. The advanced courses include more application of skills in the lab. Also, during the last half of the program, opportunities to work on outside customer jobs are part of the lab tasks.

Assessment (Grading Criteria):

Each course can include written, performance assessments, and periodic review of the student's course notebook. Written assessments include quizzes and comprehensive exams. Performance assessments include tool box checks, completing tasks in a timely manner that align with industry pace, proper tool usage, following all safety requirements, staying on task and in the assigned area, and following industry procedures and techniques to complete work orders.

Grading Scale:

93% -100%	A
85%-92%	B
76%-84%	C
69%-75%	D
0%-68%	F

Grading Breakout

Lab Activities.....25%

A composite evaluation of hands-on tasks performed in the lab such as:

1. Tool usage
2. Use of reference materials
3. Adherence to safety (zero tolerance)
4. Work completed to industry standards

Daily Behavior25%

A daily grade based on 10 points per day. No points earned if absent. Areas evaluated are:

1. Participation: Arrived at class/lab equipped to learn by having all required materials such as safety glasses, writing utensils, books, etc. Actively contributing to class discussions, timely completion of assignments, contributing to a positive learning environment
2. Participation: Arrived at class/lab equipped to learn by having all required materials such as safety glasses, writing utensils, books, etc. Actively contributing to class discussions, timely completion of assignments, contributing to a positive learning environment
3. Attitude: Willingness to work with instructors and other students, respect of other points of view and learning styles, ready and willing to learn
4. Professionalism: Required uniform shirt clean and tucked in. Adherence to dress code and to all other program and school policies regarding tools, vehicles, behavior, etc
5. Safety: (Violation of safety policy may result in loss of ALL daily points) Safety glasses with clear lenses and side shields worn in required areas, leather boots or shoes worn, no horseplay.
6. Sanitation: Work area and any other assigned area kept neat and clean.

Classroom Activities.....15%

A composite grade based on the quality of completed classroom assignments such as:

1. Written assignments
2. Homework
3. Oral presentations
4. End of topic written or performance exams.
5. Mid-Term exams

Quizzes15%

1. Weekly

Final Exams.....20%

A composite grade based on written, oral and performance exams such as:

1. End of course written or performance exams.
2. Hands-on performance exams

Note: A student must maintain a “C” grade point average in the program to continue to the next semester of the program. (See the student handbook for specific guidelines.)

Make-Up Policy:

No make-up is available for missed time, but class assignments, quizzes and comprehensive exams can be completed for excused absences only and must be coordinated through the instructor(s).

Dress Code (professional attire):

Work shirts- (min. 2) Tan purchased only through Washburn Tech Warehouse. Program work shirts are required to be worn at all times. Shirts are to be clean, and tucked in. In the event of a stained or torn shirt it will need to be replaced.

Pants-jeans or uniform type only (no loose, baggy or torn pants are accepted)

Shoes-work boots or leather shoes (no nylon).

No hats in the shop or classroom

Clothing that shows alcoholic beverages or controlled substances are not acceptable. (Refer to student handbook)

No jewelry- For example...rings, watches, necklaces, bracelets, earrings, etc.

Career Titles: Collision damage Sales /Estimator, Metal technician, Structural technician, Refinish technician, Detailer, Collision mechanical technician, Collision electronics technician, Paint peppers/painter’s helper, Auto dismantler, Auto glass installer.

Program Policies: (many of these policies are for program safety guidelines)

- Students are to arrive for class on time and be prepared to learn. Class starts at 8:00 AM or 11:45 AM.
- Class will be dismissed in the classroom and only by an instructor.
- Students are to inform instructors any time they are on medications (prescription or over-the-counter). This is necessary for the instructor to modify their activities in the shop for safety purposes with equipment and machinery.
- Students will follow all safety requirements (PPE, equipment, or procedures) as instructed. **Safety glasses “Z87” must be worn in shop at all times- clear lens only; glasses must fit properly.**

- Students are to use the south door for entrance and exit only.
- No cell phones or pagers in shop or classroom.
- Lighters, matches, or laser lights are prohibited in shop/classroom.
- Food and drink are not allowed in the shop/classroom.
- No music devices in shop/classroom including no usage of vehicle radios.
- Appropriate and professional behavior is expected (no horseplay, profanity, running, etc.)
- Harassment of any kind – sexual, racial, or verbal, will not be tolerated. (see student handbook)
- Students will clean up their own work areas daily and participate in general shop duties.
- Students will work in their designated shop area during class. If you are working in the shop area you must stay in that area until released by your instructor or the shop leader then return to the classroom.
- Students will take an active role in group/team projects.
- Daily attendance and active participation leads to successful performance. Whether excused or unexcused, absences limit the student's learning opportunities because live customer work varies daily.
- Students are not allowed in the instructor's office unless an instructor is present and permission is given.
- Students are not permitted to be in their personal vehicle during class or breaks.
- Students will be issued a locker so they can keep books, change of clothes, and personal items locked during class period. In most cases, students keep items in their locker that are not allowed in shop work area.
- EXAMPLES: Cell phones, pagers, hats, lighters, matches, snacks and beverages, radios and stereos, etc.

Vehicles:

Do not sit, lean, set objects, tools, parts, brooms, etc. on vehicles. Students are not permitted in vehicles, customer or personal, while being repaired without the instructors' permission. Any intentional damage or destruction of property, will be referred to administration for disciplinary action. Administration will determine appropriate restitution for damages. (Refer to student handbook)

Students wishing to bring in a vehicle to be repaired must meet the following:

1. Vehicle must meet program criteria
2. 2nd year student
3. GPA of 3.0 or higher
4. In good standing with school/program

Disability Services

The Special Support Services (SSS) Office is responsible for assisting in arranging accommodations and for identifying resources at Washburn Tech for persons with disabilities. Qualified students with disabilities MUST register and provide documentation with the office to be eligible for services. New requests for accommodations should be submitted two months or more prior to the date services should begin; however, contact the SSS Office as soon as a need may arise. Depending on the accommodation request, four to eight weeks lead time may be needed for timely and effective provision of services. SSS coordinates and assist in arranging services it deems appropriate for eligible students on a case-by-case basis.

If you are a student with a disability that may substantially limit your ability to participate in this class and believe you will need accommodations, it is your responsibility to contact:

Who: Special Support Services Coordinator
Phone:785-228-6356
E-Mail: SSSCoordinator@washburntech.edu

Student may voluntarily identify themselves to the instructor for a referral to the Special Support Services Coordinator.

Program Course Details

Course A -- Orientation/Safety

Course Number	CLR100
Credits	1
Contact Hours	15
Total Hours	15
Category	Core Course
Required	Yes
Course Description	This course introduces the student to basic and Industry-specific safety skills that is an ongoing education. Topics include: PPE (Personal Protective Equipment), first aid, dress code and safety implications, MSDS (Material Safety Data Sheets) procedures of handling dangerous materials, SP2 (Pollution Prevention and Environmental Safety, and shop safety), intro to tools/equipment and safety on tools/equipment. When other tools/equipments are introduced, additional safety procedures will be covered in the course. No student will be allowed to operate or be in the area of operating machines until the student has successfully completed (96%) the initial safety test. Students are expected to observed and comply with all safety rules and regulations.

Course B -- Non-Structural Repair I

Course Number	CLR120
Credits	3
Contact Hours	60
Total Hours	60
Category	Core Course
Required	Yes
Course Description	Through a variety of classroom and/or shop/lab learning and assessment activities, students in this course will: explore the components of safety pertaining to auto collision and repair; explore the parts and construction of vehicles; explore opportunities in the auto collision industry; identify metal straightening techniques; identify the application and use of body fillers; demonstrate proper use, set-up and storage of welding equipment; distinguish between weldable and non-weldable materials; demonstrate fundamental industry standard recommended welds; identify plastics and adhesives used in automotive industry; explain the general purpose of damage, estimation and repair orders; explore the processes required for outer body panel repairs, replacements and adjustments; and demonstrate fundamental cutting procedures.

Course C -- Structural Repair I

Course Number	CLR130
Credits	2
Contact Hours	45
Total Hours	45
Category	Core Course
Required	Yes
Course Description	Through a variety of classroom and/or lab/shop learning and assessment activities, students in this course will: identify measuring procedures; analyze the basic structural damage conditions; identify the safety requirements pertaining to structural damage repair; analyze frame repair methods; analyze unibody inspection and measurement and identify procedures of welding for structural repair.

Course D -- Refinishing I

Course Number	CLR140
Credits	3
Contact Hours	75
Total Hours	75
Category	Core Course
Required	Yes
Course Description	Through a variety of classroom and/or shop/lab learning and assessment activities, students in this course will: identify safety and personal health hazards according to OSHA guidelines and the 'Right to Know' law; determine the different types of substrates and sanding materials relevant to autobody surface preparation; identify the process to clean and prepare a substrate for paint; distinguish between the properties, uses and manufacturer specifications of metal treatments and primers; distinguish among the various types of spray guns and equipment; explore various paint codes and specifications for use; Identify the various paint systems; explore the types of paint defects; distinguish between damage and non-damage related corrosion; and identify final detail procedures

Course E -- Mechanical/Electrical I

Course Number	CLR150
Credits	3
Contact Hours	75
Total Hours	75
Category	Core Course
Required	Yes
Course Description	Through classroom and/or lab/shop learning and assessment activities, students will: determine how to diagnose steering and suspension; diagnose electrical concerns; complete headlamp and fog/driving lamp assemblies and repairs; demonstrate self-grounding procedures for handling electronic components; determine diagnosis, inspection and service needs for brake system hydraulic components; examine components of heating and air conditioning systems; determine the inspection, service and repair needs for collision damaged cooling system components;

distinguish between the under car components and systems; and determine the diagnosis, inspection and service requirements of active and passive restraint systems.

Course F -- Workplace Skills I

Course Number	CLR160
Credits	1
Contact Hours	15
Total Hours	15
Category	Core Course
Required	Yes
Course Description	This course utilizes Key Train Software to assist in advancement of knowledge in Applied Math and Reading for Information WorkKeys assessments that are required prior to exiting the program. Students will also be required to attend seminars provided through the Career Resource Center. Seminar topics include interview techniques, developing and preparing a resume, completing job applications, ethics, and teamwork.

Course G -- Non-Structural Repair II

Course Number	CLR125
Credits	4
Contact Hours	90
Total Hours	90
Category	Core Course
Required	Yes
Course Description	Through a variety of classroom and/or lab/shop learning and assessment activities, students in this course will: identify trim and hardware to be protected; examine what to consider when working with movable glass; perform outer body panel repairs; Perform outer body replacements and adjustments; Perform metal straightening techniques; Perform body filling techniques; Perform metal finishing techniques; Use welding procedures in non-structural damage repair; Distinguish between mechanical and electrical components; apply safety standards for the collision repair industry; use cutting procedures in non-structural damage repair; and determine procedures necessary for working with plastics and adhesives.

Course H -- Structural Repair II

Course Number	CLLR230
Credits	2
Contact Hours	45
Total Hours	45
Category	Core Course
Required	Yes
Course Description	Through a variety of classroom and/or shop/lab learning and assessment activities, students in this course will: apply safety requirements pertaining to structural damage repair; analyze frame inspection and repair procedures; determine direct and indirect damage for structural repair; analyze unibody inspection,

measurement, and repair procedures; perform welding techniques for structural repair; and identify cutting procedures for structural repair.

Course I -- Refinishing II

Course Number	CLR240
Credits	4
Contact Hours	90
Total Hours	90
Category	Core Course
Required	Yes
Course Description	Through a variety of classroom and/or shop/lab learning and assessment activities, students in this course will: select proper personal protective equipment; perform proper shop operations according to OSHA Guidelines; remove paint coatings; apply corrosion resistant coatings; demonstrate proper spray gun operation and cleaning procedures; select proper painting and substrate materials for projects; analyze paint defects, causes and cures; repair paint defects; measure paint mil thickness; and determine final detail procedures for given projects.

Course J -- Estimate/Damage I

Course Number	CLR110
Credits	2
Contact Hours	45
Total Hours	45
Category	Core Course
Required	Yes
Course Description	Through a variety of classroom and/or shop/lab learning and assessment activities, students in this course will: explore the components of analyzing damage pertaining to auto collision and repair; demonstrate basic estimating to identify structural repairs required, part design, construction materials, and manufacturing processes.

Course K -- Structural Repair III

Course Number	CLR235
Credits	3
Contact Hours	60
Total Hours	60
Category	Core Course
Required	Yes
Course Description	Through a variety of classroom and/or shop learning and assessment activities, students in this course will: apply safety requirements pertaining to structural damage repair; perform welding and cutting techniques for structural repair; diagnose unibody direct and indirect damage; apply unibody inspection and measurement procedures; apply unibody repair procedures; apply frame inspection and measurement procedures; apply frame repair procedures; and remove fixed glass.

Course L -- Non-Structural Repair III

Course Number	CLR220
Credits	2
Contact Hours	45
Total Hours	45
Category	Core Course
Required	Yes
Course Description	Through a variety of classroom and/or lab/shop learning and assessment activities, students in this course will: remove and install trim and hardware; determine process and procedures necessary for movable glass repair; repair outer body panel; replace and adjust outer body panels; remove and install mechanical and electrical components; demonstrate safety protocol appropriate for the auto repair setting; perform intermediate welding skills on non-structural damage repairs; and perform plastic and adhesive repairs.

Course M -- Refinishing III

Course Number	CLR245
Credits	3
Contact Hours	75
Total Hours	75
Category	Core Course
Required	Yes
Course Description	Through a variety of learning and/or shop/lab learning and assessment activities, students in this course will: identify safety and personal health hazards according to OSHA guidelines and the 'Right to Know' law; determine the different types of substrates and sanding materials relevant to autobody surface preparation; identify the process to clean and prepare a substrate for paint; distinguish between the properties, uses and manufacturer specifications of metal treatments and primers; distinguish among the various types of spray guns and equipment; explore various paint codes and specifications for use; identify the various paint systems; explore the types of paint defects; distinguish between damage and non-damage related corrosion; and identify final detail procedures.

Course N -- Estimate/Damage II

Course Number	CLR200
Credits	3
Contact Hours	75
Total Hours	75
Category	Core Course
Required	Yes
Course Description	Through a variety of classroom and/or shop/lab learning and assessment activities, students in this course will expand their knowledge and performance to explore the advanced components of analyzing damage pertaining to auto collision and repair; demonstrate a complete estimate to identify structural repairs required, part design, construction materials, and manufacturing processes. Prerequisite: CLR110.

Course O -- Workplace Skills II

Course Number	CLR260
Credits	1
Contact Hours	15
Total Hours	15
Category	Core Course
Required	Yes
Course Description	This course is the final preparation for the exit assessment by using Key Train software for Applied Math and Reading for Information. A student will be required to attend remaining seminars that were not attended in Workplace Skills I through the Career Resource Center.

Course P -- Non-Structural Repair IV

Course Number	CLR225
Credits	3
Contact Hours	75
Total Hours	75
Category	Core Course
Required	Yes
Course Description	Through a variety of classroom and lab/shop learning and assessment activities, students in this course will: apply safety requirements pertaining to structural damage repair; perform advanced welding and cutting techniques for structural repair; perform inspection and measurement of unibody for structural repair; repair unibody direct and indirect damage; perform frame inspection and measurement procedures; repair frame to industry standards; and remove and install fixed glass.

Course Q -- Mechanical/Electrical II

Course Number	CLR250
Credits	3
Contact Hours	60
Total Hours	60
Category	Core Course
Required	Yes
Course Description	Through classroom and/or lab/shop learning and assessment activities, students will advance knowledge and skills to determine how to diagnose steering and suspension; diagnose electrical concerns; complete headlamp and fog/driving lamp assemblies and repairs; demonstrate self-grounding procedures for handling electronic components; determine diagnosis, inspection and service needs for brake system hydraulic components; examine components of heating and air conditioning systems; determine the inspection, service and repair needs for collision damaged cooling system components; distinguish between the under car components and systems; and determine the diagnosis, inspection and service requirements of active and passive restraint systems. Prerequisite: CLR150.

Course R -- Structural Repair IV

Course Number	CLR237
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Credits 3
Contact Hours 75
Total Hours 75
Category Core Course
Required Yes
Course Description Through a variety of classroom and lab/shop learning and assessment activities, students in this course will: apply safety requirements pertaining to structural damage repair; perform advanced welding and cutting techniques for structural repair; perform inspection and measurement of unibody for structural repair; repair unibody direct and indirect damage; perform frame inspection and measurement procedures; repair frame to industry standards; and remove and install fixed glass.

Course S -- Refinishing IV

Course Number CLR247
Credits 3
Contact Hours 75
Total Hours 75
Category Core Course
Required Yes
Course Description Through a variety of classroom and/or shop/lab learning and assessment activities, students in this course will: apply exemplary safety procedures in all areas of auto body painting and refinishing; perform proper cleaning procedures for a refinish; prepare adjacent panels for blending; prepare plastic panels for refinishing; protect all non-finished areas of vehicle; operate high and low volume/pressure spray gun operations for painting and refinishing; perform all paint system applications on an automobile; apply appropriate paint color matching and mixing procedures; tint color using formula to achieve a blendable match; explore the causes, effects and correction of buffing-related imperfections; explore the causes, effects and correction of pigment flotation; measure mil thickness; apply decals, transfers, tapes, woodgrains, pinstripes to an automobile; apply buffing and polishing techniques to remove defects; apply cleaning techniques to automobile interior, exterior, glass and body openings; and remove overspray.

Course T -- Collision Repair OJT

Course Number CLR270
Credits 3
Contact Hours 45
Total Hours 45
Category Elective
Required No
Course Description OJT (On-the-Job Training) is an elective course for a student to work at a job site to apply skills and knowledge acquired in the

program. A student is eligible for OJT only upon 100% completion of the program competencies, 90% attendance throughout the program, all school invoices paid, completion of the institution exit assessment, and agreement completed with an employer. If a student does not comply to the attendance and job performance expectations of the employer, the student will be required to return to the program. This is a pass/fail course.