

# AUTO BODY/COLLISION REPAIR AND REFINISHING TECHNOLOGY, AAS

**Program Code:** AAS.ABCOLRRTECH

The Auto Body/Collision Repair and Refinishing program simulates real working conditions in a well-equipped modern shop facility. Training combines intensive theory and practical lab experience tailored to specific needs. Course work includes one term of cooperative work experience with a local employer. The flexibility of the program allows students to enter any term and proceed at their own pace.

Technicians repair or replace parts, straighten structure, install and adjust glass and components, repair electrical systems, restraints, suspension components, brakes, prepare all types of surfaces for necessary refinishing operations, mix and apply modern urethane and waterborne paint products, and finish their work to industry standards. Skills learned include welding, metal straightening, filler use, plastic repair, surface preparation, masking, product selection, mixing, color matching and application techniques, as well as detailing and troubleshooting. This degree qualifies students for I-CAR Non-structural Technician Pro Level I and I-CAR Refinish Technician Pro Level I Certification.

For information contact Dustin Bates, 503-594-3973, [dustinb@clackamas.edu](mailto:dustinb@clackamas.edu), or the Automotive and Welding Department, 503-594-3047.

## Outcomes

### Related Instruction Outcomes

#### Computation

- 1 course - MTH-050 Technical Mathematics I or MTH-065 Algebra II
- Use appropriate mathematics to solve problems

#### Communication

- 1 course - WR-101 Communication Skills: Occupational Writing or WR-121 English Composition
- Read actively, think critically, and write purposefully and capably for professional audiences

#### Human Relations

- 1 course - Recommended: COMM-100 Basic Speech Communication or PSY-101 Human Relations
- Engage in ethical communication processes that accomplish goals

#### Physical Education/Health/Safety/First Aid

- 3 credits - Recommended: HE-252 First Aid/CPR/AED or MFG-107 Industrial Safety & First Aid
- Use effective life skills to improve and maintain mental and physical wellbeing

## Program Outcomes

Upon successful completion of this program, students should be able to:

- demonstrate the proper selection of tools and materials needed to perform metal straightening and plastic filler repair processes;

- prepare a repaired surface, choose and apply appropriate materials, block sand, clean surface, and apply topcoat, detail;
- repair sheet metal damage, demonstrate panel replacement techniques, identify structural damage, and formulate viable repair processes;
- perform spot repairs and blends using the latest industry accepted practices and materials, to the standards of industry;
- demonstrate skill in major body repair, including frame and Unibody repair;
- demonstrate the use of electronic frame measuring systems, during the repair of full frame and Unibody vehicles;
- plan and execute an industry acceptable repair on both full frame and Unibody vehicles, including structural, non-structural, cosmetic and mechanical repairs;
- display the skills needed to apply high-end automotive finishes to a variety of automotive substrates;
- perform a variety of welding processes needed to properly repair vehicles of both steel and aluminum construction, in accordance with I-CAR guidelines;
- demonstrate competency in Collision Repair Estimating, using Mitchells guides, Audatex, and CCC One software.

## Requirements

Course	Title	Credits
<b>First Year</b>		
<b>First Term</b>		
AB-112	Collision Repair Welding I	2
AB-113	Collision Repair I/Nonstructural	6
ABR-125	Collision Repair/Refinishing I	6
MTH-050 or MTH-065	Technical Mathematics I or Algebra II	4
<b>Credits</b>		<b>18</b>
<b>Second Term</b>		
AB-123	Collision Repair Welding II	2
AB-133	Collision Repair II/Structural	6
ABR-127	Collision Repair/Refinishing II	6
<b>Credits</b>		<b>14</b>
<b>Third Term</b>		
AB-222	Collision Repair III/Advanced Structural	6
ABR-129	Collision Repair/Refinishing III	6
<b>Human Relations requirement</b>		<b>3</b>
COMM-100	Basic Speech Communication (Recommended)	
PSY-101	Human Relations (Recommended)	
<b>Credits</b>		<b>15</b>
<b>Second Year</b>		
<b>Fourth Term</b>		
AB-149	Collision Repair Estimating I	2
AB-224	Collision Repair IV/Advanced Structural	6
ABR-225	Production Shop Techniques	6
<b>PE/Health/Safety/First Aid requirement</b>		<b>3</b>
HE-252	First Aid/CPR/AED (Recommended)	

Course	Title	Credits
MFG-107	Industrial Safety & First Aid (Recommended)	
<b>Credits</b>		<b>17</b>
<b>Fifth Term</b>		
AB-150	Collision Repair Computerized Estimating - Audatex	2
AB-226	Collision Repair V/Advanced Structural	6
AB-235	Collision Repair Welding III	2
ABR-227	Restoration Practices	6
<b>Credits</b>		<b>16</b>
<b>Sixth Term</b>		
AB-151	Collision Repair Computerized Estimating - CCC ONE	2
AB-280	Collision Repair/CWE	6
WR-101 or WR-121	Communication Skills: Occupational Writing or English Composition	3-4
<b>Credits</b>		<b>11-12</b>
<b>Total Credits</b>		<b>91-92</b>

## Careers

Career opportunities include:

- auto body technician
- frame technician
- auto body mid-tech
- painter's helper
- painter
- estimator
- manager in an independent repair shop
- automobile dealership
- truck or heavy equipment dealer
- service center
- sales of auto body related tools and materials