

Area of Interest: Transportation

Auto Body and Collision Damage Repair - Apprenticeship

Ontario College Certificate

Program Code: 0502X01FWO

24 Weeks

Ottawa Campus

Our Program

Become a journeyperson in the Auto Body Repair industry.

The Auto Body and Collision Damage Repair - Apprenticeship Ontario College Certificate provides Auto Body Repairer apprentices with an understanding of the ever-changing automotive technology field.

Applicants to the Auto Body and Collision Damage Repair - Apprenticeship Ontario College Certificate program must:

- be currently employed in the trade
- be formally registered as apprentices with the Ministry of Labour, Training and Skills Development (MLTSD)
- have a valid Offer of Classroom Training from the Ministry of Labour, Training and Skills Development that includes your Ministry Client ID and approved Class Number

Auto Body Repairer is a compulsory trade and requires a certificate of qualification to work in Ontario. If you are considering a future as an autobody repairer, you can find a career in independent collision facilities, auto body repair facilities or automobile dealerships. You may also be able to find employment with the government, vehicle salvage facilities and insurance companies.

To learn more about apprenticeships, visit <http://ontario.ca/page/skilled-trades> for detailed information.

Registered Apprentices:

Apprentices attend three 8-week levels of 30 hours per week of in-class sessions. Sixty (60) percent of class time is spent in theory and 40 percent learning practical, hands-on skills. In the basic, intermediate, and advanced levels, you will learn the different types of body construction, repair techniques and refinishing procedures. Graduates are required to pass the federal Red Seal examination to qualify for a Certificate of Qualification in the Auto Body Repair trade.

SUCCESS FACTORS

This program is well-suited for students who:

- Enjoy a hands-on approach to learning about the auto body repair industry.
- Can work independently.
- Are attentive to detail.

Employment

Graduates may be employed as apprentice/journey-person auto body technicians. Opportunities exist in independent collision and auto body repair facilities, automobile dealerships, government, vehicle salvage facilities and insurance companies.

Learning Outcomes

The graduate has reliably demonstrated the ability to:

- Disassemble and assemble vehicle body components according to manufacturers` recommendations under appropriate supervision.
- Repair vehicle non-structural components according to industry standards using basic repair techniques.
- Perform basic paint manufacturers` refinishing procedures according to manufacturers` standards for quality, appearance and durability.
- Comply with health and safety legislation and safe work practices to support and maintain efficient, safe and secure shop operations.
- Maintain mechanical systems to required manufacturers` specifications using diagnostic equipment and basic repair techniques under appropriate supervision.
- Identify and use strategies to enhance work performance and maintain currency with industry.
- Support the development of a repair plan by evaluating collision damages to automotive body and frame.
- Use communication, teamwork and relationship management skills to contribute to a positive work environment.
- Identify and perform welding procedures on body, frame and structures according to automotive manufacturers` recommendations.
- Diagnose problems with electrical and electronic systems and perform repairs, removals or replacements of electrical and electronic components.

Program of Study

Level: 01 (Basic)	Courses	Hours
AUT8844	Body and Frame Structure	96.0
AUT8845	Refinishing I	40.0
AUT8846	Applied Mechanical I	32.0
AUT8847	Applied Work Practices	40.0
AUT8848	Welding I	32.0
Level: 02 (Intermediate)	Courses	Hours
AUT8850	Plastics Repair	32.0
AUT8851	Body and Structure	56.0
AUT8852	Non-Structural Repair	56.0
AUT8855	Refinishing II	32.0
AUT8886	Applied Mechanical II	32.0
AUT8888	Welding II	32.0
Level: 03 (Advanced)	Courses	Hours
AUT8861	Damage Analysis and Estimating	32.0
AUT8862	Body, Frame and Structure	64.0

AUT8865	Refinishing III	32.0
AUT8866	Applied Mechanical III	32.0
AUT8878	Structural Panel Replacement	64.0
AUT8879	Alignment	16.0

Fees for the 2023/2024 Academic Year

Tuition Fees: \$400 per level.

Incidental Fee: \$150 per level.

Information Technology Fee: \$43.86 per level.

Algonquin College recommends that students purchase their textbooks. Students are responsible for supplies, including safety footwear, safety glasses, cartridge type respirator, and parking and locker fees, if applicable.

Admission Requirements for the 2024/2025 Academic Year

College Eligibility

- Ontario Secondary School Diploma (OSSD) or equivalent; OR
- Mature Student status (19 years of age or older and without a high school diploma at the start of the program).

Program Eligibility

- Prospective students must be registered apprentices with the Ministry of Labour, Training and Skills Development and must be a member in good standing with Skilled Trades Ontario (STO).
- Eligibility is determined by the Ministry of Labour, Training and Skills Development.

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Application Information

AUTO BODY AND COLLISION DAMAGE REPAIR - APPRENTICESHIP **Program Code 0502X01FWO**

Registration for Apprenticeship programs takes place through the Ministry of Labour, Training, and Skills Development.

For further information, contact:

Ministry of Labour, Training, and Skills Development
347 Preston Street 3rd Floor, Suite 310
Ottawa, ON K1S 3H8

<http://www.ontario.ca/page/start-apprenticeship>

Telephone: 613-731-7100

Toll-free: 1-877-221-1220

Contact Information

Program Coordinator(s)

- Wade Foster, <mailto:fosterw@algonquincollege.com> , 613-727-4723, ext. 2949
- Martin Restoule, <mailto:restoum@algonquincollege.com> , 613-727-4723, ext. 5153

Course Descriptions

AUT8844 Body and Frame Structure

Apprentices learn about vehicle construction and design, non-structural panel repair, metal finishing, bumper systems, and the types and uses of abrasives and fillers.

Prerequisite(s): none

Corerequisite(s):none

AUT8845 Refinishing I

Apprentices are introduced to the construction, types and applications of spray guns and spray booths. They learn about the composition of refinishing materials and the basic procedures for surface preparation, undercoats, paint identification and compressed air delivery.

Prerequisite(s): none

Corerequisite(s):AUT8844 and AUT8846 and AUT8847 and AUT8848

AUT8846 Applied Mechanical I

Apprentices are introduced to personal computer skills, automotive electrical systems, battery fundamentals, air conditioning systems, tires and rims, as well as circuit repair and protection devices.

Prerequisite(s): none

Corerequisite(s):none

AUT8847 Applied Work Practices

Emphasis is on shop and personal safety issues. An introduction to the proper use of shop tools and equipment is provided. Apprentices learn the uses of and the procedures for the removal/replacement of automotive glass, trim and hardware.

Prerequisite(s): none

Corerequisite(s):AUT8844 and AUT8845 and AUT8846 and AUT8848

AUT8848 Welding I

Apprentices practise oxyacetylene welding, heating, cutting, Gas Metal Arc Welding (GMAW) and Plasma Arc Cutting. They practise welding different joint types and positions.

Prerequisite(s): none

Corerequisite(s):AUT8844 and AUT8845 and AUT8846 and AUT8847

AUT8850 Plastics Repair

Apprentices are introduced to repair procedures for non-reinforced plastics, sheet mold compound (SMC) panel repair, reinforced plastic repairs, as well as plastic bonding and welding. Apprentices also examine plastics identification and uses.

Prerequisite(s): AUT8844 and AUT8845 and AUT8846 and AUT8847 and AUT8848
Corerequisite(s):AUT8851 and AUT8852 and AUT8855 and AUT8886 and AUT8888

AUT8851 Body and Structure

Apprentices acquire an understanding of corrosion and corrosion protection, frame measuring systems and the use of reference manuals, the purpose of and procedures for the replacement of automotive glass and safety devices.

Prerequisite(s): none
Corerequisite(s):none

AUT8852 Non-Structural Repair

Apprentices learn how to complete non-structural panel repairs, use body fillers, identify damage patterns and damage direction, and to follow logical and sequential repair technologies. Apprentices also learn procedures for non-structural panel replacement and alignment.

Prerequisite(s): AUT8844 and AUT8845 and AUT8846 and AUT8847 and AUT8848
Corerequisite(s):AUT8850 and AUT8851 and AUT8855 and AUT8886 and AUT8888

AUT8855 Refinishing II

Apprentices build on their preparation and priming application skills and knowledge. Apprentices participate in the refinishing process and the topcoat application for a complete vehicle. Plastic refinishing and vehicle detailing are studied.

Prerequisite(s): AUT8844 and AUT8845 and AUT8846 and AUT8847 and AUT8848
Corerequisite(s):AUT8850 and AUT8851 and AUT8852 and AUT8886 and AUT8888

AUT8861 Damage Analysis and Estimating

Apprentices learn about the purpose of fundamental steps in damage analysis, explain the procedures for diagnosing frame and unibody structures, as well as analyze damaged unibody and framed vehicles. Apprentices perform steering and suspension inspections to identify damages. Vehicle damage estimating and job costing are also addressed.

Prerequisite(s): AUT8850 and AUT8851 and AUT8852 and AUT8855 and AUT8886 and AUT8888
Corerequisite(s):AUT8862 and AUT8865 and AUT8866 and AUT8878 and AUT8879

AUT8862 Body, Frame and Structure

Apprentices learn about the purpose of fundamental steps in aluminum repair, demonstrate and perform manufacturer's repair procedures, as well as perform aluminum welding. Additional topics include the fundamentals and procedures of vehicle anchoring systems. Apprentices perform anchoring and re-alignment of vehicle structures and frames.

Prerequisite(s): AUT8850 and AUT8851 and AUT8852 and AUT8855 and AUT8886 and AUT8888
Corerequisite(s):AUT8861 and AUT8865 and AUT8866 and AUT8878 and AUT8879

AUT8865 Refinishing III

Apprentices learn the fundamentals of colour matching including the required formulae, applications of tinters and reasons for colour mismatch. Apprentices also perform procedures for mixing and tinting paint, adjust paints to achieve a blendable match and test colours with the use of spray out cards. Procedures for blending spot repairs and determining paint problems are

practised.

Prerequisite(s): AUT8850 and AUT8851 and AUT8852 and AUT8855 and AUT8886 and AUT8888
Corerequisite(s):AUT8861 and AUT8862 and AUT8866 and AUT8878 and AUT8879

AUT8866 Applied Mechanical III

The fundamentals of onboard computers are addressed and the function and construction features of onboard computers and electronic components are described. Apprentices service electrical and electronic systems, read electrical wiring schematics and perform operations using various wiring diagrams. Apprentices study the functions and construction of air conditioning systems and power train assembly removal and replacement procedures.

Prerequisite(s): AUT8850 and AUT8851 and AUT8852 and AUT8855 and AUT8886 and AUT8888
Corerequisite(s):AUT8861 and AUT8862 and AUT8865 and AUT8878 and AUT8879

AUT8878 Structural Panel Replacement

Apprentices learn the fundamental steps in the removal and replacement of structural panels, as well as the repair procedures. Apprentices also practise the procedures for structural panel sectioning.

Prerequisite(s): AUT8850 and AUT8851 and AUT8852 and AUT8855 and AUT8886 and AUT8888
Corerequisite(s):AUT8861 and AUT8862 and AUT8865 and AUT8866 and AUT8879

AUT8879 Alignment

Apprentices learn about vehicle alignment and the construction types, styles, and the applications of vehicle suspension system alignment and adjustment points. Apprentices also work with alignment angles, measurements, and perform wheel alignment adjustments and calculations.

Prerequisite(s): AUT8850 and AUT8851 and AUT8852 and AUT8855 and AUT8886 and AUT8888
Corerequisite(s):AUT8861 and AUT8862 and AUT8865 and AUT8866 and AUT8878

AUT8886 Applied Mechanical II

Apprentices learn the principles of automotive heating, ventilation and cooling systems, as well as the basics of electrical and vacuum system repairs. Apprentices develop familiarity with a vehicle dash and describe the manufacturer's service procedures for repairs.

Prerequisite(s): AUT8844 and AUT8845 and AUT8846 and AUT8847 and AUT8848
Corerequisite(s):AUT8850 and AUT8851 and AUT8852 and AUT8855 and AUT8888

AUT8888 Welding II

Apprentices develop skills required for Shielded Metal Arc Welding (SMAW), refine skills in Gas Metal Arc Welding (GMAW) and learn the applications of and procedures for Resistance Spot Welding (RSW) Compression.

Prerequisite(s): none
Corerequisite(s):none