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# ACAP 2002: Auto Body and Collision Technician Apprenticeship Level 2

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## EFFECTIVE DATE

April 2022

## DEPARTMENT

Auto Collision Apprenticeship

## DESCRIPTION

This course provides the Level 2 technical training component of the provincial Auto Body and Collision Technician apprenticeship program. Students learn about vehicle construction and components, corrosion protection, complex sheet metal repair and door skin replacement, aluminum MIG welding and panel repair, and refinishing environments and materials. A focus is placed on workplace organization and repair planning throughout the course. Students achieving a VCC grade of 70% or greater are eligible for the ITA Standardized Written Exam. The VCC training grade is blended with the ITA Exam mark at 80%/20% to determine an overall final grade. Students achieving a blended grade of 70% or greater are eligible to: - receive ITA Technical Training credit for Auto Body and Collision Technician Level 2 - advance to Auto Body and Collision Technician Level 3

## CREDITS

8.0

## YEAR OF STUDY

1st Year Post-secondary

## PREREQUISITES

Students must be registered with the Industry Training Authority of B.C. (ITA) and have received an Apprenticeship Identification number; and have completed: Automotive Collision Refinishing Common Core Level 1 (Harmonized), or Automotive Collision and Refinish Foundation (Harmonized), or Automotive Collision Repair Technician Level 1 (pre-April 2021)\*, or Automotive Collision Repair Foundation Certificate (pre-April 2021)\* \*Note: Students transitioning from the pre-April 2021 MVBR program are subject to a co-requisite for this course. Please refer to Course Co-requisites.

## COREQUISITES

Students transitioning from the pre-April 2021 MVBR program (Automotive Collision Repair Technician Level 1 or Automotive Collision Repair Foundation Certificate) are subject to a gap-training module as a co-requisite for this course. This 14-hour module may include online self-study material and additional face-to-face instruction, and must be successfully completed during this course.

## **COURSE LEARNING OUTCOMES**

Upon successful completion of this course, students will be able to:

- Use lifting equipment according to manufacturers' procedures in accordance with government safety regulations (B2).
- Use and maintain spray and mixing equipment according to manufacturers' procedures in accordance with government safety regulations (B4-B5).
- Perform lap and plug welding processes on aluminum sheet metal to industry standards using MIG welding equipment (C2).
- Maintain equipment used for non-ferrous welding processes (C3).
- Organize parts, materials and work area to meet workflow time management goals (D1).
- Prepare detailed repair plan based on a given work order with reference to repair sequence, parts and materials availability, and production deadlines (D5).
- Describe spray booth setup, maintenance and troubleshooting (H2).
- Perform spray gun setup and troubleshooting (H3).
- Mix various refinishing materials according to paint and vehicle manufacturers' recommendations and in accordance with government safety regulations (I1).
- Describe single-stage paint application troubleshooting (I3).
- Describe applying and blending basecoat/clearcoat and multistage paint (I4).
- Describe colour adjustment theory and techniques (I6).
- Identify and describe the removal of surface imperfections (J2).
- Analyze damage to non-ferrous metals and high strength steel used in vehicle construction (K1).
- Repair metal panels and components including: complex steel sheet metal damage, door skin replacement, and aluminum sheet metal damage (K4).
- Remove, repair and install various composite panels to vehicle and product manufacturers' recommendations in accordance with government safety regulations (L1-L5).
- Apply corrosion protection, seam sealers and sound deadeners according to vehicle and product manufacturers' recommendations in accordance with government safety regulations (O1-O2).
- Remove and install structural glass (R1-R2).
- Repair laminated glass (R3).
- Remove and install non-structural glass (S1-S2).
- Remove, repair and install various interior components to vehicle and product manufacturers' recommendations and industry standards (W1-W2).

## **PRIOR LEARNING ASSESSMENT & RECOGNITION (PLAR)**

None

## **HOURS**

Lecture: 100

Lab: 80

## **INSTRUCTIONAL STRATEGIES**

This course provides a wide range of opportunities for student learning in classroom and shop settings. In addition

to hands-on practical experience at VCC's own state of the art automotive collision repair and refinishing facility learning activities such as lectures, demonstrations, individual and group project based learning strategies may be used throughout the course. Students may access learning materials and course evaluations using VCC's online course management system. Attendance and Participation Given the industrial nature of this course professional and safe work practice is of critical importance. A student may be withdrawn from the course for safety concerns and/or an inability to meet professional practice standards due to inadequate attendance. Excused absences are those reported in advance of a scheduled class, wherever possible, or if appropriate documentation can be provided for the time missed. Other absences will be reported as unexcused, and an excess of unexcused absences may result in a student being withdrawn from the course.

## GRADING SYSTEM

Percentages-ITA

## PASSING GRADE

70%

## EVALUATION PLAN

Type	Percentage	Assessment activity
Quizzes/Tests	30	Formative theory quizzes
Exam	20	Summative theory exams
Assignments	50	In-shop practical evaluations

## COURSE TOPICS

- Lifting Equipment Use and Maintenance
  - Anchoring equipment installation
  - Specialty equipment
- Aluminum MIG Welding and Equipment
- Repair Planning for Workflow and Time Management
- Refinishing Equipment Use, Maintenance and Troubleshooting:
  - Spray Equipment
  - Mixing Equipment
  - Solvent Recycling
  - Spray Booth
- Corrosion Protection, Seam Sealers and Sound Deadeners
- Interior Components
- Metal Panel Repair:
  - Complex Steel Sheet Metal Repairs
  - Door Skin Replacement
  - Aluminum Sheet Metal Repairs

- Composite Panel Repairs and Replacement
- Automotive Glass:
  - Structural Glass
  - Non-structural Glass
  - Laminated Glass Repairs
- Refinishing Materials:
  - Single-Stage, Basecoat/Clearcoat and Multistage Paint
  - Colour Adjustment Theory and Techniques
  - Surface Imperfections Identification and Removal

## LEARNING RESOURCES

None

Notes:

- Course contents and descriptions, offerings and schedules are subject to change without notice.
- Students are required to follow all College policies including ones that govern their educational experience at VCC. Policies are available on the VCC website at:  
<https://www.vcc.ca/about/governance--policies/policies/>.
- To find out how this course transfers, visit the BC Transfer Guide at <https://www.bctransferguide.ca>.

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1155 East Broadway  
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### Downtown campus

250 West Pender Street  
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