Course Name: Auto Collision Repair Technician Apprentice Level 2

Course Number: ACAP 2001  Number of Credits: 5.5  Effective Date: January 2019

Course Description:
This course provides the Level 2 technical training component of the provincial Motor Vehicle Body Repairer (Automotive Collision Repair Technician) apprentice program.

Students learn the theoretical and practical components of MIG welding aluminum, advanced sheet metal repair, metal adhesive bonding processes and repair procedures for plastic composites and fibre reinforced plastics. In addition, this course focuses on electrical and electronics components, airbags, seat belt assemblies, vehicle operating systems, cooling systems, and air conditioning operations.

Students achieving a blended VCC / ITA (level exam) grade of 70% or greater are eligible to advance to Level 2 Technical Training and to receive 150 hours Work-Based Training credit.

Pre-requisites (if applicable):
Students must be registered with the Industry Training Authority of BC (ITA), have received an Apprentice Identification number and received ITA credit for Auto Collision Repair Technician Apprentice Level 1 Technical Training.

Co-requisites (if applicable):

PLAR (Prior Learning Assessment & Recognition)  ☐ No  ☑ Yes (details below):
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.

Course Learning Outcomes:

1. D6 Describe setup procedures for MIG welding aluminum
2. D7-AC Perform various aluminum MIG welds
3. E5 Describe productive organizational skills
4. E6 Describe complex damage analysis procedures
5. E7 Describe roughing procedures for repairing sheet metal
6. E8 Describe plastic filler procedures for damage to complex sheet metal areas
7. E9-AC Perform a complex sheet metal repair
8. E10 Describe panel replacement and repair techniques
9. E10-AC Perform a partial/simulated door skin replacement
10. E11 Describe the characteristics of aluminum
11. E12 Describe basic sheet aluminum repairs
12. F4 Describe fibreglass and sheet mold compound repair equipment
13. F5 Describe repair procedures for repairing fibreglass and sheet mold compound
14. F6-AC Perform two-sided fibreglass and sheet mold compound repairs
15. I1 Identify seat belt assemblies
16. I2 Identify airbag system components
17. I3 Describe engine cooling systems
18. I4 Describe air conditioning system components and servicing
19. I5 Identify vehicle systems; 20. I6 Identify electrical/electronics on-board procedures
21. I6-AC Repair a damaged wire maintaining acceptable circuit resistance

Program Learning Outcomes:
Learning Environment/Type

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<th>Instruction Type</th>
<th>Hours Per Instruction Type</th>
<th>Comments</th>
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<tbody>
<tr>
<td>J - Classroom/Online (Mixed Mode)</td>
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<tr>
<td>K - Shop/Teaching Kitchen</td>
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Total 125

Components and Weighting of the Assessment/Evaluation Plan:

<table>
<thead>
<tr>
<th>Type</th>
<th>Percentage</th>
<th>Evaluation Plan</th>
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<tbody>
<tr>
<td>Formative theory quizzes (10-15)</td>
<td>30</td>
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<tr>
<td>Summative theory exam</td>
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<tr>
<td>In-shop practical evaluations (7-10)</td>
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Total 100

Evaluation/Grading System

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<td>Percentages</td>
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<td>70%</td>
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Total 100

Resource Material(s):

Resources are items in addition to tuition that the student is responsible for purchasing. Course resource information will be supplied by the department/instructor.
Course Topics:
Aluminum Welding
Sheet Metal Repair
Plastics and Composites
Mechanical Components

VCC Education and Education Support Policies
There are a number of Education and Education Support policies that govern your educational experience at VCC, please familiarize yourself with them.
The policies are located on the VCC web site at:
http://www.vcc.ca/about/governance--policies/policies/

To find out how this course transfers, visit the BC Transfer Guide at www.bctransferguide.ca.

FOR COMMITTEE USE ONLY

<table>
<thead>
<tr>
<th>Approved by Curriculum Committee:</th>
<th>Approved by Education Council:</th>
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<tr>
<td>September 18, 2018</td>
<td>October 9, 2018</td>
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