



COURSE OUTLINE

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Course Name: Corrosion Protection

Department Head/Coordinator: David Cross

Effective Date: January 2016

School or Centre:	Department:	
School of Transportation Trades	Auto Collision Repair and Refinishing	
Course History:	Year of Study:	
New Course	1st Year Post-secondary	
Name of Replacing Course (if applicable):	Course Number:	ACRD 2115
	Number of Credits:	2.0

Course Pre-requisites (if applicable):

Course Co-requisites (if applicable):

PLAR (Prior Learning Assessment & Recognition)

No Yes (details below):

Course Description:

Students apply the theory of corrosion, identify problems caused by a lack of corrosion protection, identify vehicle protection from the effects of corrosion and identify anti-corrosion compounds used in the automotive refinishing industry.

Note to instructors: An instructional strategy is an approach that an instructor uses to achieve the learning outcomes (e.g., lecture, case study, video, group work).

Instructional Strategies:

Instructional strategies include: Lectures, demonstrations, case studies, assigned homework, group work, individual work, field trips, and project work in an authentic shop environment.

Course Learning Outcomes:

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

1. Explain corrosion
2. Explain galvanic corrosion
3. Describe sacrificial corrosion
4. Identify the Material Safety Data Sheet (MSDS) of anti-corrosion materials
5. Identify anti-corrosion material application methods
6. Identify incorrect corrosion protection
7. Identify damage caused by incorrect corrosion protection
8. Describe anti-corrosion application equipment
9. Apply anti-corrosion materials
10. Identify petroleum-based anti-corrosion materials
11. Identify acid-based anti-corrosion materials
12. Describe self-etching primers
13. Obtain manufacturer's corrosion protection recommendations
14. Identify components of the vehicle that require corrosion protection
15. Describe types of protection required for each vehicle component
16. Describe the steps required to provide corrosion protection
17. Apply anti-corrosion compounds
18. Describe the use of chip guards

Program Learning Outcomes:

Upon completion of this program, graduates will be able to:

1. Apply the skills and knowledge necessary to perform at an apprentice level automotive refinishing, automotive glass or automotive collision technician to provincial standards;
2. Evaluate completed repairs for consistency, accuracy and quality according to industry specifications and standards;
3. Adhere to industry health and safety standards in the repair and reconditioning of automotive vehicles;
4. Practice professional etiquette and personal hygiene while performing repairs;
5. Work effectively as a team member while performing repairs.

Evaluation/Grading System *(Click on drop down box arrows to see list of options)*

Grading System	Specify if 'Other':	Specify Passing Grade:
Percentages		70%

Components and Weighting of the Assessment/Evaluation Plan: *(Click on drop down box arrows to see list of options)*

Type	Percentage	Evaluation Plan (provide a brief explanation for each component especially if value exceeds 35%):
Assignments	25	Quizzes and Assignments (formative - theory)
Exam	20	Theory exam (summative - theory)
Project	30	Practical assignments (preparation, task completion, cleanup, document writing-service report etc.)
Participation	25	Observable active participation and team work
	Total	100

Learning Environment/Type *(Select all that are used within the course)*

Instruction Type	Hours Per Instruction Type	Comments
L - Classroom	25	
K - Shop/Teaching Kitchen	25	
Enter Total Hours	50	

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 and Sequence Covered:

1. Corrosion Types
2. Sacrificial Corrosion
3. Material Safety Data Sheet (MSDS) of Anti-corrosion Materials
4. Application Methods
5. Corrosion Protection
6. Application Equipment
7. Application of Anti-corrosion Materials
8. Petroleum-based Anti-corrosion Materials
9. Acid-based Anti-corrosion Materials
10. Self-etching Primers
11. Manufacturer's Recommendations
12. Corrosion Protection for Vehicle Components
13. Steps Required to Provide Corrosion Protection
14. Application of anti-corrosion Compounds
15. Chip Guards

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-vcc/policies/index.cfm>

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

FOR COMMITTEE USE ONLY

Date Approved by Education Council:		Date Approved by VCC Board (if applicable):	
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