PROGRAM OUTLINE

Automotive Refinishing Prep Technician

and

Automotive Painter

(Automotive Refinishing Technician)
AUTOMOTIVE PAINTER
(AUTOMOTIVE REFINISHING TECHNICIAN)
AND
AUTOMOTIVE REFINISHING PREP TECHNICIAN
PROGRAM OUTLINE

APPROVED BY INDUSTRY
JUNE 2016

BASED ON AUTOMOTIVE PAINTER
NOA 2014

Developed by
Industry Training Authority
Province of British Columbia

Industry Training Authority
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Section 1

INTRODUCTION

Automotive Painter
(Automotive Refinishing Technician)
and
Automotive Refinishing Prep Technician
Foreword

This revised Automotive Painter (Automotive Refinishing Technician) and Automotive Refinishing Prep Technician Program Outline is intended as a guide for instructors, apprentices, employers of apprentices as well as for the use of industry organizations, regulatory bodies, provincial and federal governments. It reflects updated standards based on the new Automotive Painter Occupational Analysis (2014) and British Columbia industry and instructor subject matter experts.

Practical instruction by demonstration and student participation should be integrated with classroom sessions. Safe working practices, even though not always specified in each operation or topic, are an implied part of the program and should be stressed throughout the apprenticeship.

This Program Outline includes a list of recommended reference textbooks that are available to support the learning objectives and the minimum shop requirements needed to support instruction.

Each competency is to be evaluated through the use of written and/or practical assessment in which the learner must achieve a minimum of 70% in order to receive a passing grade. The types of questions used on these exams must reflect the cognitive level indicated by the learning objectives and the learning tasks listed in the related competencies.

Achievement Criteria are included for those competencies that require a practical component. The intent of including Achievement Criteria in the Program Outline is to ensure consistency in training across the many training institutions in British Columbia. Their purpose is to reinforce the theory and to provide a mechanism for evaluation of the learner’s ability to apply the theory to practice. It is important that these performances be observable and measurable and that they reflect the skills spelled out in the competency as those required of a competent journeyperson. The conditions under which these performances will be observed and measured must be clear to the learner as well as the criteria by which the learner will be evaluated. The learner must also be given the evaluation criteria.

The performance spelled out in the Achievement Criteria is a suggested performance and is not meant to stifle flexibility of delivery. Training providers are welcome to substitute other practical performances that measure similar skills and attainment of the competency. Multiple performances may also be used to replace individual performances where appropriate.

SAFETY ADVISORY

Be advised that references to the WorkSafeBC safety regulations contained within these materials do not/may not reflect the most recent Occupational Health and Safety Regulation (the current Standards and Regulation in BC can be obtained on the following website: [http://www.worksafebc.com](http://www.worksafebc.com)). Please note that it is always the responsibility of any person using these materials to inform him/herself about the Occupational Health and Safety Regulation pertaining to his/her work.
Acknowledgements

The Occupational Analysis Chart was reviewed and revised by the following Industry Subject Matter Experts:

- Michael Japuncic
- Ian Johnston
- Kyle Kushnir  White & Peters
- Todd Regier  Prestige Collision
- Cory Swanson  Prestige Collision

The Program Outline was reviewed and revised by Industry and Instructor Subject Matter Experts:

- David Cross  Vancouver Community College
- Mark Deroche  British Columbia Institute of Technology
- John Euloth  Okanagan College
- Kelby Paul Haldorson  British Columbia Institute of Technology
- Byron Hayashi  College of New Caledonia
- Michael Japuncic
- Ian Johnston
- Kyle Kushnir  White & Peters
- Nick Penner  University of the Fraser Valley
- Derek Sproston  BASF

The Industry Training Authority would like to acknowledge the dedication and hard work of all the industry representatives appointed to identify the training requirements of the Automotive Painter (Automotive Refinishing Technician) and Automotive Refinishing Prep Technician occupations.
## How to Use this Document

This Program Outline has been developed for the use of individuals from several different audiences. The table below describes how each section can be used by each intended audience.

<table>
<thead>
<tr>
<th>Section</th>
<th>Training Providers</th>
<th>Employers/ Sponsors</th>
<th>Apprentices</th>
<th>Challengers</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Program Credentialing Model</strong></td>
<td>Communicate program length and structure, and all pathways to completion</td>
<td>Understand the length and structure of the program</td>
<td>Understand the length and structure of the program, and pathway to completion</td>
<td>Understand challenger pathway to Certificate of Qualification</td>
</tr>
<tr>
<td><strong>OAC</strong></td>
<td>Communicate the competencies that industry has defined as representing the scope of the occupation</td>
<td>Understand the competencies that an apprentice is expected to demonstrate in order to achieve certification</td>
<td>View the competencies they will achieve as a result of program completion</td>
<td>Understand the competencies they must demonstrate in order to challenge the program</td>
</tr>
<tr>
<td><strong>Training Topics and Suggested Time Allocation</strong></td>
<td>Shows proportionate representation of general areas of competency (GACs) at each program level, the suggested proportion of time spent on each GAC, and percentage of time spent on theory versus practical application</td>
<td>Understand the scope of competencies covered in the technical training, the suggested proportion of time spent on each GAC, and the percentage of that time spent on theory versus practical application</td>
<td>Understand the scope of competencies covered in the technical training, the suggested proportion of time spent on each GAC, and the percentage of that time spent on theory versus practical application</td>
<td>Understand the relative weightings of various competencies of the occupation on which assessment is based</td>
</tr>
<tr>
<td><strong>Program Content</strong></td>
<td>Defines the objectives, learning tasks, high level content that must be covered for each competency, as well as defining observable, measurable achievement criteria for objectives with a practical component</td>
<td>Identifies detailed program content and performance expectations for competencies with a practical component; may be used as a checklist prior to signing a recommendation for certification (RFC) for an apprentice</td>
<td>Provides detailed information on program content and performance expectations for demonstrating competency</td>
<td>Allows individual to check program content areas against their own knowledge and performance expectations against their own skill levels</td>
</tr>
</tbody>
</table>

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Industry Training Authority

Automotive Painter (Automotive Refinishing Technician) and Automotive Refinishing Prep Technician

06/16
<table>
<thead>
<tr>
<th>Section</th>
<th>Training Providers</th>
<th>Employers/ Sponsors</th>
<th>Apprentices</th>
<th>Challengers</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Training Provider Standards</strong></td>
<td>Defines the facility requirements, tools and equipment, reference materials (if any) and instructor requirements for the program</td>
<td>Defines the tools and equipment an apprentice is expected to have access to; which are supplied by the training provider and which the student is expected to own</td>
<td>Provides information on the training facility, tools and equipment provided by the school and the student, reference materials they may be expected to acquire, and minimum qualification levels of program instructors</td>
<td>Identifies the tools and equipment a tradesperson is expected to be competent in using or operating; which may be used or provided in a practical assessment</td>
</tr>
<tr>
<td><strong>Appendix – Glossary of Acronyms</strong></td>
<td>Defines program specific acronyms</td>
<td>Defines program specific acronyms</td>
<td>Defines program specific acronyms</td>
<td>Defines program specific acronyms</td>
</tr>
</tbody>
</table>

Industry Training Authority
Section 2
PROGRAM OVERVIEW

Automotive Painter
(Automotive Refinishing Technician)
and
Automotive Refinishing Prep Technician
Program Overview

Program Credentialing Model

Apprenticeship Pathway
This graphic provides an overview of the Automotive Painter (Automotive Refinishing Technician) and Automotive Refinishing Prep Technician apprenticeship pathway.

C of Q = Certificate of Qualification
C of A = Certificate of Apprenticeship
C of C = Certificate of Completion
WBT = Work-Based Training

Automotive Painter (Automotive Refinishing Technician)
Technical Training: 120 hours (4 weeks*)
Work-Based Training: 3,360 hours
Interprovincial Red Seal Exam

Automotive Refinishing Prep Technician
Technical Training: 120 hours (4 weeks*)
Work-Based Training: 1,680 hours
ITA Certificate of Qualification Exam

*Suggested duration based on 30-hour week

Re-register into Auto Painter (Auto Refinishing Technician) Program

CROSS-PROGRAM CREDITS
Individuals who hold the credentials listed below are entitled to receive partial credit toward the completion requirements of this program

C of Q - Motor Vehicle Body Repairer (Metal and Paint) (Automotive Collision Repair Technician)

Technical Training: None
Automotive Refinishing Prep Technician - Work-Based Training: 1,680 hours

Industry Training Authority
### Occupational Analysis Chart

#### AUTOMOTIVE PAINTER (AUTOMOTIVE REFINISHING TECHNICIAN) AND AUTOMOTIVE REFINISHING PREP TECHNICIAN

**Occupation Description: Automotive Painters (Automotive Refinishing Technicians)** work on the surfaces of motor vehicles, primarily in restoring vehicle finishes once body work has been completed. Some of the duties that an Automotive Painter completes include: removing layers of sub-coating; matching colours and mixing paints; preparing metal surfaces for painting by spot filling, sanding, and masking; applying primers, primer surfacers, colour coats, and clearcoats; and cleaning and polishing painted surfaces including removing and replacing decals.

**Occupation Description: Automotive Refinishing Prep Technicians** work on the surfaces of motor vehicles, primarily in the preparation for restoring vehicle finishes once body work has been completed and prior to painting. Some of the duties that an Automotive Refinishing Prep Technician completes include: removing layers of sub-coating; mixing undercoats; preparing metal surfaces for painting by spot filling, sanding, and masking; applying primers, and primer surfacers; and cleaning and polishing painted surfaces.

*Note: Automotive Refinishing Prep Technician program competencies are indicated by (1) and Automotive Painter (Automotive Refinishing Technician) program competencies are indicated by (2)*

<table>
<thead>
<tr>
<th>PERFORM SAFETY-RELATED FUNCTIONS</th>
<th>Use PPE and safety equipment</th>
<th>Maintain safe work environment</th>
</tr>
</thead>
<tbody>
<tr>
<td>A1</td>
<td></td>
<td>A2</td>
</tr>
<tr>
<td>1</td>
<td></td>
<td>1</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>MAINTAIN TOOLS AND EQUIPMENT</th>
<th>Maintain hand and power tools</th>
<th>Maintain spray booth</th>
<th>Maintain spray equipment</th>
</tr>
</thead>
<tbody>
<tr>
<td>B1</td>
<td></td>
<td>B2</td>
<td>B3</td>
</tr>
<tr>
<td>1</td>
<td>1</td>
<td>1</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>USE DOCUMENTATION</th>
<th>Interpret vehicle information</th>
<th>Use technical manuals and bulletins</th>
<th>Comply with safety and environmental regulations</th>
<th>Interpret work orders</th>
</tr>
</thead>
<tbody>
<tr>
<td>C1</td>
<td>C2</td>
<td>C3</td>
<td>C4</td>
<td></td>
</tr>
<tr>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td></td>
</tr>
</tbody>
</table>

Industry Training Authority
## Training Topics and Suggested Time Allocation

### Automotive Refinishing Prep Technician

<table>
<thead>
<tr>
<th>Line</th>
<th>Training Topic</th>
<th>% of Time</th>
<th>Theory</th>
<th>Practical</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td><strong>PERFORM SAFETY-RELATED FUNCTIONS</strong></td>
<td>10%</td>
<td>70%</td>
<td>30%</td>
<td>100%</td>
</tr>
<tr>
<td>A1</td>
<td>Use PPE and safety equipment</td>
<td></td>
<td>✔️</td>
<td>✔️</td>
<td></td>
</tr>
<tr>
<td>A2</td>
<td>Maintain safe work environment</td>
<td></td>
<td>✔️</td>
<td>✔️</td>
<td></td>
</tr>
<tr>
<td>B</td>
<td><strong>MAINTAIN TOOLS AND EQUIPMENT</strong></td>
<td>10%</td>
<td>40%</td>
<td>60%</td>
<td>100%</td>
</tr>
<tr>
<td>B1</td>
<td>Maintain hand and power tools</td>
<td></td>
<td>✔️</td>
<td>✔️</td>
<td></td>
</tr>
<tr>
<td>B2</td>
<td>Maintain spray booth</td>
<td></td>
<td>✔️</td>
<td>✔️</td>
<td></td>
</tr>
<tr>
<td>B3</td>
<td>Maintain spray equipment</td>
<td></td>
<td>✔️</td>
<td>✔️</td>
<td></td>
</tr>
<tr>
<td>C</td>
<td><strong>USE DOCUMENTATION</strong></td>
<td>5%</td>
<td>100%</td>
<td>0%</td>
<td>100%</td>
</tr>
<tr>
<td>C1</td>
<td>Interpret vehicle information</td>
<td></td>
<td>✔️</td>
<td></td>
<td></td>
</tr>
<tr>
<td>C2</td>
<td>Use technical manuals and bulletins</td>
<td></td>
<td>✔️</td>
<td></td>
<td></td>
</tr>
<tr>
<td>C3</td>
<td>Comply with safety and environmental regulations</td>
<td></td>
<td>✔️</td>
<td></td>
<td></td>
</tr>
<tr>
<td>C4</td>
<td>Interpret work orders</td>
<td></td>
<td>✔️</td>
<td></td>
<td></td>
</tr>
<tr>
<td>D</td>
<td><strong>PLAN WORK</strong></td>
<td>5%</td>
<td>50%</td>
<td>50%</td>
<td>100%</td>
</tr>
<tr>
<td>D1</td>
<td>Perform inspection</td>
<td></td>
<td>✔️</td>
<td>✔️</td>
<td></td>
</tr>
<tr>
<td>D3</td>
<td>Organize production schedule</td>
<td></td>
<td>✔️</td>
<td>✔️</td>
<td></td>
</tr>
<tr>
<td>E</td>
<td><strong>PREPARE SURFACE</strong></td>
<td>35%</td>
<td>20%</td>
<td>80%</td>
<td>100%</td>
</tr>
<tr>
<td>E1</td>
<td>Prepare vehicle for refinishing</td>
<td></td>
<td>✔️</td>
<td>✔️</td>
<td></td>
</tr>
<tr>
<td>E2</td>
<td>Mask vehicle</td>
<td></td>
<td>✔️</td>
<td>✔️</td>
<td></td>
</tr>
<tr>
<td>E3</td>
<td>Strip surface</td>
<td></td>
<td>✔️</td>
<td></td>
<td></td>
</tr>
<tr>
<td>E4</td>
<td>Sand surface</td>
<td></td>
<td>✔️</td>
<td></td>
<td></td>
</tr>
<tr>
<td>F</td>
<td><strong>USE REPAIR MATERIALS</strong></td>
<td>15%</td>
<td>40%</td>
<td>60%</td>
<td>100%</td>
</tr>
<tr>
<td>F1</td>
<td>Mix repair materials</td>
<td></td>
<td>✔️</td>
<td>✔️</td>
<td></td>
</tr>
<tr>
<td>F2</td>
<td>Apply repair materials</td>
<td></td>
<td>✔️</td>
<td>✔️</td>
<td></td>
</tr>
<tr>
<td>F3</td>
<td>Apply corrosion protection</td>
<td></td>
<td>✔️</td>
<td>✔️</td>
<td></td>
</tr>
<tr>
<td>G</td>
<td><strong>USE EQUIPMENT</strong></td>
<td>10%</td>
<td>20%</td>
<td>80%</td>
<td>100%</td>
</tr>
<tr>
<td>G1</td>
<td>Use spray guns</td>
<td></td>
<td>✔️</td>
<td>✔️</td>
<td></td>
</tr>
<tr>
<td>G2</td>
<td>Operate spray booth</td>
<td></td>
<td>✔️</td>
<td>✔️</td>
<td></td>
</tr>
<tr>
<td>G3</td>
<td>Operate drying and curing equipment</td>
<td></td>
<td>✔️</td>
<td>✔️</td>
<td></td>
</tr>
<tr>
<td>G4</td>
<td>Use paint manufacturers' software and equipment</td>
<td></td>
<td>✔️</td>
<td>✔️</td>
<td></td>
</tr>
</tbody>
</table>

Industry Training Authority
## Program Overview

### Line I

<table>
<thead>
<tr>
<th>PERFORM PRE-DELIVERY TASKS</th>
<th>10%</th>
<th>40%</th>
<th>60%</th>
<th>100%</th>
</tr>
</thead>
<tbody>
<tr>
<td>I1 Remove surface imperfections</td>
<td>✓</td>
<td>✓</td>
<td></td>
<td></td>
</tr>
<tr>
<td>I2 Install trim and accessories</td>
<td>✓</td>
<td>✓</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Total Percentage for Automotive Refinishing Prep Technician**

| 100% |
## Training Topics and Suggested Time Allocation

**Automotive Painter (Automotive Refinishing Technician)**

<table>
<thead>
<tr>
<th>Line</th>
<th>Topic</th>
<th>% of Time</th>
<th>Theory</th>
<th>Practical</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>D1</td>
<td>Perform inspection</td>
<td>10%</td>
<td>30%</td>
<td>70%</td>
<td>100%</td>
</tr>
<tr>
<td>D2</td>
<td>Contribute to development of repair estimate</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>D3</td>
<td>Organize production schedule</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>E1</td>
<td>Prepare vehicle for refinishing</td>
<td>5%</td>
<td>20%</td>
<td>80%</td>
<td>100%</td>
</tr>
<tr>
<td>H1</td>
<td>Mix paint</td>
<td>75%</td>
<td>25%</td>
<td>75%</td>
<td>100%</td>
</tr>
<tr>
<td>H2</td>
<td>Perform colour matching</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>H3</td>
<td>Apply refinishing materials</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>H4</td>
<td>Troubleshoot paint problems</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>I1</td>
<td>Remove surface imperfections</td>
<td>10%</td>
<td>20%</td>
<td>80%</td>
<td>100%</td>
</tr>
<tr>
<td>I3</td>
<td>Apply decals and striping</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>I4</td>
<td>Perform final check</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Total Percentage for Automotive Painter (Automotive Refinishing Technician)**: 100%
Section 3

PROGRAM CONTENT

Automotive Painter
(Automotive Refinishing Technician)
and
Automotive Refinishing Prep Technician
Automotive Refinishing Prep Technician
Line (GAC): A PERFORM SAFETY-RELATED FUNCTIONS
Competency: A1 Use PPE and safety equipment

Objectives
To be competent in this area, the individual must be able to:
- Use PPE.
- Use safety equipment.

<table>
<thead>
<tr>
<th>LEARNING TASKS</th>
<th>CONTENT</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Identify PPE</td>
<td>• CSA-approved</td>
</tr>
<tr>
<td></td>
<td>• Eye protection</td>
</tr>
<tr>
<td></td>
<td>o Goggles</td>
</tr>
<tr>
<td></td>
<td>o Glasses</td>
</tr>
<tr>
<td></td>
<td>o Face shields</td>
</tr>
<tr>
<td></td>
<td>• Respiratory protection</td>
</tr>
<tr>
<td></td>
<td>o Dust mask</td>
</tr>
<tr>
<td></td>
<td>o Air-supplied</td>
</tr>
<tr>
<td></td>
<td>o Cartridge</td>
</tr>
<tr>
<td></td>
<td>• Skin protection</td>
</tr>
<tr>
<td></td>
<td>o Gloves</td>
</tr>
<tr>
<td></td>
<td>o Coveralls</td>
</tr>
<tr>
<td></td>
<td>o Barrier creams</td>
</tr>
<tr>
<td></td>
<td>• Foot protection</td>
</tr>
<tr>
<td></td>
<td>• Hearing protection</td>
</tr>
<tr>
<td>2. Identify safety equipment</td>
<td>• Fire suppression systems</td>
</tr>
<tr>
<td></td>
<td>o Extinguishers</td>
</tr>
<tr>
<td></td>
<td>o Sprinklers</td>
</tr>
<tr>
<td></td>
<td>• Ventilation systems</td>
</tr>
<tr>
<td></td>
<td>• Eye wash stations</td>
</tr>
<tr>
<td></td>
<td>• Spill kits</td>
</tr>
<tr>
<td></td>
<td>• First aid kits</td>
</tr>
<tr>
<td>3. Use PPE and safety equipment</td>
<td>• Selection</td>
</tr>
<tr>
<td></td>
<td>• Storage</td>
</tr>
<tr>
<td></td>
<td>• Maintenance</td>
</tr>
<tr>
<td></td>
<td>• Testing</td>
</tr>
<tr>
<td></td>
<td>o Fit</td>
</tr>
<tr>
<td></td>
<td>o Operation</td>
</tr>
<tr>
<td></td>
<td>o Condition</td>
</tr>
</tbody>
</table>
Achievement Criteria

Performance  The learner will apply proper personal safety practices during all shop activities.

Conditions  The learner will be given:

- Workplace orientation
- Access to all personal safety equipment
- Clear guidelines
- Access to OHS regulation and WorkSafeBC standards

Criteria  The learner will start with 100% and a demerit system will deduct a given percentage for safety infractions. A weighting system will be applied to individual safety infractions.
Line (GAC): A  PERFORM SAFETY-RELATED FUNCTIONS
Competency: A2  Maintain safe work environment

Objectives
To be competent in this area, the individual must be able to:
- Identify hazards.
- Maintain a safe work environment.

Learning Tasks

1. Identify hazards
   - Job Hazard Analysis (JHA)
   - Chemical exposure
     - Particulates
     - Vapours
     - Fumes
     - Mists
     - Liquids
     - Isocyanates
     - Acute exposure
     - Chronic exposure
   - Combustibles
     - Types
     - Ignition sources
   - Noise
   - Vehicle hazards
     - Alternative fuels
     - Electrical components
     - Supplemental Restraint Systems (SRS)
     - Heating, Ventilation and Air Conditioning (HVAC)
   - Shop equipment
     - Lifts
     - Stands
     - Enclosures

2. Describe fire safety
   - Classification
     - Types of fire
     - Types of extinguishers
   - Prevention
   - Procedures
     - Pull, Aim, Squeeze, Sweep (PASS)
     - Fire drills
LEARNING TASKS
3. Maintain a safe work environment

CONTENT
• Workplace Hazardous Material Information System (WHMIS) implementation
• Shop layout
  o Location of safety equipment
  o Emergency exits
  o Materials storage
• Ventilation systems
• Housekeeping

4. Use vehicle handling procedures

CONTENT
• Jump start a vehicle
• Lifting and jacking
• Wheel Re & I
• Vehicle operation

Achievement Criteria
Performance The learner will maintain a safe work environment during all shop activities.
Conditions The learner will be given:
• Workplace orientation
• Access to all safety equipment
• Clear guidelines
• Access to OHS regulation and WorkSafeBC standards

Criteria The learner will be evaluated on safe work practices and procedures.
# MAINTAIN TOOLS AND EQUIPMENT

## Competency: B1 Maintain hand and power tools

### Objectives
To be competent in this area, the individual must be able to:
- Describe tools and equipment.
- Describe the maintenance of tools and equipment.

### LEARNING TASKS

1. **Describe hand tools**
   - Basic hand tools
     - Screwdrivers
     - Sockets
     - Wrenches
   - Sanding blocks
   - Trim tools
   - Cutting and scraping tools

2. **Describe power tools**
   - Pneumatic
     - Sanders
     - Polishers
     - Ratchets
     - Eraser wheels
     - Impact guns
   - Electric
     - Heat guns
     - Polishers
     - Cordless

3. **Describe shop equipment**
   - Compressors
     - Rotary
     - Piston
     - Diaphragm
   - Compressor air dryer
   - Gun washers
   - Drying equipment
     - Infra-red lamps
     - UV lamps
   - Paper compactors
   - Hydraulic
     - Jacks
     - Lifts
LEARNING TASKS
4. Describe the maintenance of tools and equipment

CONTENT
- Lubrication
- Cleaning
- Consumables replacement
- Unsafe tools
- Storage
Line (GAC): B MAINTAIN TOOLS AND EQUIPMENT
Competency: B2 Maintain spray booth

Objectives
To be competent in this area, the individual must be able to:
• Describe spray booths and their components.
• Maintain spray booths and their components.

LEARNING TASKS
1. Describe spray booths
   • Downdrafts
   • Crossdrafts (crossflows)
   • Semi-downdrafts
   • Prep stations

2. Describe spray booth components
   • Intake
     o Air makeup
   • Exhaust
   • Manometers and magnehelics
   • Filtration
     o Pre-intake
     o Intake
     o Exhaust
     o Air transformers
   • Air blowers
   • Lighting
   • Seals and gaskets
   • Belts
   • Hoses and fittings
   • Glass

3. Maintain spray booths, mixing room and components
   • Schedules
   • Inspection
   • Cleaning
   • Replacement
     o Filters
     o Lights
     o Seals
     o Booth coating
Achievement Criteria

Performance  The learner will perform spray booth maintenance according to schedule.

Conditions  The learner will be given:

- Maintenance schedule and/or checklist
- Necessary materials

Criteria  The learner will be evaluated on:

- Safety
- Tool use
- Environmental practices
- Maintenance of spray booth and its components
Line (GAC): B MAINTAIN TOOLS AND EQUIPMENT
Competency: B3 Maintain spray equipment

Objectives
To be competent in this area, the individual must be able to:
• Describe spray gun components.
• Maintain spray equipment.

LEARNING TASKS
1. Describe spray equipment
   • Spray gun types
     o Gravity feed
     o Pressure feed
     o Siphon feed
     o Electrostatic
   • Spray gun components
     o Body
     o Trigger
     o Regulators
     o Air cap
     o Seals and packings
     o Spreader adjustment
     o Fluid adjustment
     o Fluid nozzle
     o Fluid needle
     o Cup
   • Nitrogen generators

2. Maintain spray equipment
   • Inspection
   • Cleaning
   • Lubrication
   • Disassembly and reassembly
   • Storage
Achievement Criteria

Performance  The learner will perform spray equipment maintenance and test spray.

Conditions  The learner will be given:
- Spray equipment
- Task guideline
- Necessary materials

Criteria  The learner will be evaluated on:
- Safety
- Tool use
- Environmental practices
- Assembly and disassembly
- Spray equipment cleanliness and performance
Line (GAC): C  USE DOCUMENTATION
Competency: C1 Interpret vehicle information

Objectives
To be competent in this area, the individual must be able to locate and interpret vehicle information.

<table>
<thead>
<tr>
<th>LEARNING TASKS</th>
<th>CONTENT</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Locate and interpret vehicle information</td>
<td>• Paint code</td>
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<tr>
<td></td>
<td>• Manufacturer</td>
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<tr>
<td></td>
<td>• Model</td>
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<td></td>
<td>• Year</td>
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<td></td>
<td>• VIN</td>
</tr>
</tbody>
</table>
Program Content
Automotive Refinishing Prep Technician

Line (GAC): C USE DOCUMENTATION
Competency: C2 Use technical manuals and bulletins

Objectives
To be competent in this area, the individual must be able to access and interpret technical manuals and bulletins.

LEARNING TASKS
1. Access technical manuals and bulletins
   • Printed
   • Electronic

2. Interpret information in manuals and bulletins
   • Paint formulas
   • Product information
   • Procedure
Line (GAC): C USE DOCUMENTATION
Competency: C3 Comply with safety and environmental regulations

**Objectives**
To be competent in this area, the individual must be able to:
- Access and comply with environmental and safety regulations.
- Complete required safety and environmental documentation.

**LEARNING TASKS**

1. Identify environmental regulations
   - Jurisdictional Regulations
     - National
     - Provincial
     - Municipal
   - Hazardous waste disposal
   - Volatile Organic Compounds (VOC)
   - Spills

2. Interpret safety regulations as they apply to refinishing procedures
   - WorkSafeBC regulations
   - Workplace Hazardous Material Information System (WHMIS)
   - Safety Data Sheets (SDS)
   - Manufacturers’ recommendations
   - Company regulations
   - Injury report
   - Fit test

3. Complete documentation for safety and environmental compliance
   - Spill kit usage
   - VOC daily coatings log
   - Booth filter replacement log
Program Content
Automotive Refinishing Prep Technician

Line (GAC): C  USE DOCUMENTATION
Competency: C4 Interpret work orders

Objectives
To be competent in this area, the individual must be able to interpret different types of repair documentation.

LEARNING TASKS

1. Describe repair documentation
   • Damage report
   • Work order
   • Estimate

2. Describe the insurance claim process in BC
   • Accreditation
   • Public insurance
   • Private insurance

3. Interpret trade terminology found on work orders and estimates
   • Re & Re
   • Re & I
   • Refinish
   • Blend
   • Overlap
   • Edge
   • Multi-stage
   • Over ride
   • Judgement Time (JT)
Line (GAC): D PLAN WORK
Competency: D1 Perform inspection

Objectives
To be competent in this area, the individual must be able to:
- Determine the type of substrate.
- Evaluate the condition of substrate.

**LEARNING TASKS**

<table>
<thead>
<tr>
<th>CONTENT</th>
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</thead>
<tbody>
<tr>
<td><strong>1. Describe metals</strong></td>
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<tr>
<td>• Types</td>
</tr>
<tr>
<td>o Steel – galvanized</td>
</tr>
<tr>
<td>o Steel – non-galvanized</td>
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<tr>
<td>o Aluminum</td>
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<tr>
<td>o Stainless</td>
</tr>
<tr>
<td>• Characteristics</td>
</tr>
<tr>
<td>• Location on vehicle</td>
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</tbody>
</table>

<table>
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<tr>
<th>CONTENT</th>
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<tbody>
<tr>
<td><strong>2. Describe plastics</strong></td>
</tr>
<tr>
<td>• Thermoset</td>
</tr>
<tr>
<td>• Composites</td>
</tr>
<tr>
<td>• Urethane</td>
</tr>
<tr>
<td>• Thermoplastic</td>
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<tr>
<td>• SMC</td>
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<tr>
<td>• Olefin</td>
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<tr>
<td>• Non-Olefin</td>
</tr>
<tr>
<td>• Rigid</td>
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<tr>
<td>• Flexible</td>
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<tr>
<td>• Location on vehicle</td>
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</tbody>
</table>

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<tr>
<th>CONTENT</th>
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<tbody>
<tr>
<td><strong>3. Describe topcoats</strong></td>
</tr>
<tr>
<td>• Thermoset</td>
</tr>
<tr>
<td>• Thermoplastic</td>
</tr>
<tr>
<td>• Alkyd enamel</td>
</tr>
<tr>
<td>• Acrylic enamel</td>
</tr>
<tr>
<td>• Two-part urethane enamel</td>
</tr>
<tr>
<td>• Polyurethane enamel</td>
</tr>
<tr>
<td>• Acrylic lacquer</td>
</tr>
<tr>
<td>• Waterborne</td>
</tr>
</tbody>
</table>
4. Perform inspection of substrate
   - Visual
   - By touch
   - Tape test
   - Mil thickness gauge
   - Solvent test
   - Sanding test

5. Evaluate the substrate condition to determine next steps
   - Quality of repair
     - Pinholes
     - Sand scratches
     - Straightness
   - Previous damage or repair
   - Featheredging
   - Mil thickness
   - Adhesion
   - Environmental damage
     - Acid rain
     - Tree sap
     - Industrial fall out
     - UV damage
   - Corrosion
   - Brake dust

Achievement Criteria
Performance
The learner will perform a substrate evaluation.
Conditions
The learner will be given a substrate to assess.
Criteria
The learner will be evaluated on:
   - Safety
   - Accuracy of identification
   - Accuracy of evaluation
Program Content
Automotive Refinishing Prep Technician

Line (GAC): D PLAN WORK
Competency: D3 Organize production schedule

Objectives
To be competent in this area, the individual must be able to:
- Describe the repair and refinish process.
- Develop a refinish plan.

<table>
<thead>
<tr>
<th>LEARNING TASKS</th>
<th>CONTENT</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Describe repair process</td>
<td>◦ Shop layout</td>
</tr>
<tr>
<td></td>
<td>◦ Job duties</td>
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<tr>
<td></td>
<td>◦ Workflow</td>
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<td>◦ Inspection</td>
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<td>◦ Estimate</td>
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<td></td>
<td>◦ Order parts</td>
</tr>
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<td></td>
<td>◦ Body repair</td>
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<tr>
<td></td>
<td>◦ Prep</td>
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<tr>
<td></td>
<td>◦ Refinish</td>
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<td>◦ Reassembly</td>
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<td></td>
<td>◦ Detail</td>
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<td></td>
<td>◦ Final inspection</td>
</tr>
<tr>
<td>2. Describe process timelines</td>
<td>◦ Cycle time</td>
</tr>
<tr>
<td></td>
<td>◦ Dry time</td>
</tr>
<tr>
<td></td>
<td>◦ Flash time</td>
</tr>
<tr>
<td></td>
<td>◦ Impact on production schedule</td>
</tr>
<tr>
<td>3. Develop a refinish plan</td>
<td>◦ Consult production schedule</td>
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<tr>
<td></td>
<td>◦ Interpret work order</td>
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<td></td>
<td>◦ Verify parts to be refinished</td>
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<td></td>
<td>◦ Evaluate substrate</td>
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<tr>
<td></td>
<td>◦ Communicate with painter</td>
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<td></td>
<td>◦ Blend areas</td>
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<tr>
<td></td>
<td>◦ Cut-off point</td>
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<tr>
<td></td>
<td>◦ Colour match</td>
</tr>
<tr>
<td></td>
<td>◦ Select materials</td>
</tr>
<tr>
<td></td>
<td>◦ Select tools</td>
</tr>
</tbody>
</table>

Industry Training Authority

Automotive Painter (Automotive Refinishing Technician) and Automotive Refinishing Prep Technician
06/16

34
Achievement Criteria

Performance  The learner will develop a refinish plan.

Conditions  The learner will be given:
  - Work order or estimate
  - Vehicle to refinish

Criteria  The learner will be evaluated on:
  - Safety
  - Accuracy of the refinish plan
  - Efficiency of the refinish plan
Line (GAC): E PREPARE SURFACE
Competency: E1 Prepare vehicle for refinishing

Objectives
To be competent in this area, the individual must be able to prepare a panel for prep.

LEARNING TASKS
1. Remove necessary trim
   - Tools
   - Fasteners
   - Decals and stripes
   - Mouldings
   - Belt
   - Side
   - After-market
   - Adhesives
   - Handles
   - Mirrors
   - Lights

2. Describe contaminants
   - Solvent-borne
   - Water-borne

3. Describe cleaning products
   - Safe use
     - Product selection
     - PPE
     - Ventilation
   - Soap and water
   - Degreasers
   - Air gun
   - Tack cloth
   - Final wipe
Achievement Criteria

Performance  The learner will prepare a vehicle for prep.

Conditions  The learner will be given:
- A vehicle or component
- A work order
- Cleaning materials
- Required tools

Criteria  The learner will be evaluated on:
- Safety
- Material selection
- Trim removal technique
- Cleaning technique
Line (GAC):  E  PREPARE SURFACE
Competency:  E2  Mask Vehicle

Objectives
To be competent in this area, the individual must be able to:
• Describe masking materials.
• Use masking techniques.
• Describe masking removal.

LEARNING TASKS
1. Describe masking materials

CONTENT
• Tapes
  o Vinyl
  o Crepe paper
  o Duct
  o Aluminum
  o Foam
  o Hard edge
  o Size
• Paper
  o Coated
  o Non-coated
  o Size
• Plastics
  o Corona
  o Non-corona
• Rope
• Spray masks
• Equipment

2. Describe masking techniques

CONTENT
• Edge
• Reverse mask
• Inners
• Back mask
• Tunnel
• Aperture
• Flush mount
• Perimeter masking
• Fine line
• Two-tone
• Blend
### LEARNING TASKS

<table>
<thead>
<tr>
<th>3.</th>
<th>Describe removal of masking materials</th>
</tr>
</thead>
<tbody>
<tr>
<td>4.</td>
<td>Use masking techniques</td>
</tr>
</tbody>
</table>

### CONTENT

- When to remove
- Techniques
- Disposal
- For protection
- For primer
- For paint

### Achievement Criteria 1

**Performance**  The learner will mask a vehicle for protection and primer.

**Conditions**  The learner will be given:
- A vehicle or component
- A work order
- Masking materials
- Required tools

**Criteria**  The learner will be evaluated on:
- Safety
- Material selection
- Masking technique

### Achievement Criteria 2

**Performance**  The learner will mask a vehicle for paint.

**Conditions**  The learner will be given:
- A vehicle or component
- A work order
- Masking materials
- Required tools

**Criteria**  The learner will be evaluated on:
- Safety
- Material selection
- Masking technique
Line (GAC): E  PREPARE SURFACE
Competency: E3  Strip surface

Objectives
To be competent in this area, the individual must be able to describe stripping techniques.

LEARNING TASKS
1. Describe stripping techniques

CONTENT
• Benefits and drawbacks
• Chemical
  o Application
  o Neutralizing residue
• Mechanical
  o Sanding
  o Grinding
  o Media blasting
• Laser
Line (GAC): E PREPARE SURFACE
Competency: E4 Sand surface

Objectives
To be competent in this area, the individual must be able to:
• Describe sanding materials and equipment.
• Use sanding techniques.

LEARNING TASKS
1. Describe sanding materials and equipment
   • Sandpaper types
   • Abrasive types
   • Attachment methods
   • Sanders
   • Blocks
   • Scuff pads
   • Scuff paste
   • Vacuum assist
   • Ventilation
   • Guide coat

2. Use sanding techniques
   • Wet or dry
   • Block sanding
   • Back sanding
   • Hand sanding
   • Scuff sanding
   • Machine sanding
   • Featheredging
   • Use of guide coat

Achievement Criteria
Performance The learner will sand a vehicle for refinishing.
Conditions The learner will be given:
• A vehicle or component
• A work order
• Sanding materials
• Required tools
Criteria The learner will be evaluated on:
• Safety
• Material selection
• Sanding procedures
• Quality of sanded surface

Industry Training Authority
Line (GAC): F USE REPAIR MATERIALS
Competency: F1 Mix repair materials

Objectives
To be competent in this area, the individual must be able to:
• Describe undercoats and repair materials.
• Select repair materials.
• Mix repair materials.

LEARNING TASKS
1. Describe undercoats
   - Primer
     - Etch
     - Epoxy
     - Plastic adhesion promoter
   - Primer surfacer
     - High build
     - Direct-to-metal (DTM)
     - Polyester
     - UV
     - Water-borne
   - Primer sealer
   - Metal conditioner/conversion coating
   - Chip guards

2. Describe repair materials
   - Finishing putty
     - One-part
     - Two-part
   - Seam sealers
     - One-part
     - Two-part

3. Describe solvents and additives
   - Types of solvents
     - Reducer
     - Lacquer
     - Wax and grease remover
     - Acetone
   - Types of additives
     - Flex agents
     - Hardeners
LEARNING TASKS

4. Select repair materials
   - Type of substrate
     - Bare metal
     - E-coat
     - Plastic
     - Body filler
   - Type of repair
     - Pinhole
     - Deep scratch
     - Dent
     - Seam
   - Production schedule
   - Spray conditions
     - Size of repair
     - Temperature
     - Humidity

5. Mix repair materials
   - Manufacturers’ specifications
   - Environmental factors
     - Temperature
     - Humidity
     - Pot life
   - Mix ratios
     - Basic calculations
     - Scale
     - Graduated cylinder
     - Mixing stick
     - Viscosity cup
   - Induction time
   - Mixing techniques
Achievement Criteria

Performance  The learner will mix repair materials.

Conditions  The learner will be given:
- Imperfection to repair
- Various repair materials
- Access to manufacturers’ specifications

Criteria  The learner will be evaluated on:
- Safety
- Selection of repair material
- Mixing ratio calculations
- Mixing technique
Line (GAC): F USE REPAIR MATERIALS
Competency: F2 Apply repair materials

Objectives
To be competent in this area, the individual must be able to apply repair materials.

LEARNING TASKS
1. Describe application techniques
   • Spreading
   • Spraying
     o Distance
     o Overlap
     o Gun speed
     o Air pressure
     o Pattern
   • Roll-on
   • Brushing
   • Tooling

2. Select tools and equipment
   • Spreaders
   • Spray guns
   • Rollers
   • Brushes
   • Seam sealer guns
     o Manual
     o Pneumatic
     o Sprayable
     o Cordless

3. Apply repair material
   • Primer
   • Surfacer
   • Sealer
   • Seam sealer
   • Chip guard
   • Putty
Achievement Criteria

Performance  The learner will apply repair materials.

Conditions  The learner will be given:
  • Imperfection to repair
  • Various repair materials
  • Access to manufacturers’ specifications

Criteria  The learner will be evaluated on:
  • Safety
  • Housekeeping
  • Selection of tool
  • Technique
  • Quality of repair
**Objectives**

To be competent in this area, the individual must be able to:

- Describe corrosion.
- Apply corrosion protection.

**LEARNING TASKS**

<table>
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<th>CONTENT</th>
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</thead>
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<td><strong>1. Describe corrosion</strong></td>
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<tr>
<td>• Oxidation</td>
</tr>
<tr>
<td>• Moisture</td>
</tr>
<tr>
<td>• Electrolyte</td>
</tr>
<tr>
<td>• Effects on structural integrity</td>
</tr>
<tr>
<td>• Exposed metal</td>
</tr>
<tr>
<td>o Hot spots</td>
</tr>
<tr>
<td><strong>2. Describe galvanic corrosion</strong></td>
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<tr>
<td>• Dissimilar metal contact</td>
</tr>
<tr>
<td>• Chemical reactivity</td>
</tr>
<tr>
<td>• Relationship to sacrificial corrosion</td>
</tr>
<tr>
<td><strong>3. Describe sacrificial corrosion</strong></td>
</tr>
<tr>
<td>• Galvanized metals</td>
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<tr>
<td>• Zinc enriched materials</td>
</tr>
<tr>
<td>• Relationship to galvanic corrosion</td>
</tr>
<tr>
<td>• Sacrificial metals chart</td>
</tr>
<tr>
<td><strong>4. Describe corrosion protection products</strong></td>
</tr>
<tr>
<td>• Primers</td>
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<tr>
<td>o Epoxy</td>
</tr>
<tr>
<td>o Weld-through primer</td>
</tr>
<tr>
<td>o Etch primer</td>
</tr>
<tr>
<td>o Direct-to-metal (DTM)</td>
</tr>
<tr>
<td>• Seam sealers</td>
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<tr>
<td>• Metal conditioners</td>
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<tr>
<td>• Conversion coatings</td>
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<tr>
<td>• Wax based</td>
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<tr>
<td>• Urethane based</td>
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<tr>
<td>• Petroleum based undercoating</td>
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<tr>
<td>o Rubberized</td>
</tr>
<tr>
<td>• Chip guards</td>
</tr>
<tr>
<td>• Washers</td>
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<tr>
<td>• Insulators</td>
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<tr>
<td>• Dissimilar metal compound</td>
</tr>
</tbody>
</table>
LEARNING TASKS

5. Describe corrosion protection requirements

6. Apply corrosion protection

CONTENT

- SDS
- OEM
- Warranty
- Liability

Vehicle components or areas requiring corrosion protection
- Enclosed interior surfaces
- Exposed interior surfaces
- Exposed exterior surfaces
- Exposed joints

- Procedures
  - Safe handling
  - Application methods

- Product selection

- Tools
  - Spray gun
  - Sealing gun
  - Aerosol
  - Undercoat gun
  - Spray wand
  - Brush

- Timelines
- Shop policy

Achievement Criteria

Performance The learner will apply corrosion protection.

Conditions The learner will be given:
- Vehicle or panel requiring corrosion protection
- Corrosion protection materials
- Application tools
- Access to SDS

Criteria The learner will be evaluated on:
- Safety
- Material selection
- Application of corrosion protection
Program Content
Automotive Refinishing Prep Technician

Line (GAC): G USE EQUIPMENT
Competency: G1 Use spray guns

Objectives
To be competent in this area, the individual must be able to use spray guns to apply primer/undercoats.

LEARNING TASKS

1. Select spray guns
   • Types of materials
   • Types of guns

2. Set up spray guns
   • Fluid tips
   • Needle
   • Air caps
   • Air pressure
   • Fan adjustment
   • Fluid adjustment

3. Use spray guns
   • Test patterns
   • Troubleshooting gun operation
   • Techniques
     o Overlap
     o Pressure
     o Gun distance
     o Travel speed
     o Gun position
     o Trigger control
   • Atomization
   • Transfer efficiency
   • Cleaning (see B3)

Achievement Criteria

Performance The learner will use spray guns to apply primer/undercoats.
Conditions The learner will be given:
   • A surface to prime
   • Various spray equipment
   • Access to paint and gun manufacturers’ specifications
   • Primer/undercoat
Criteria The learner will be evaluated on:
   • Safety
   • Technique
   • Quality of finished product
   • Cleaning of equipment

Industry Training Authority
Program Content
Automotive Refinishing Prep Technician

Line (GAC): G USE EQUIPMENT
Competency: G2 Operate spray booth

Objectives
To be competent in this area, the individual must be able to operate a spray booth.

<table>
<thead>
<tr>
<th>LEARNING TASKS</th>
<th>CONTENT</th>
</tr>
</thead>
</table>
| 1. Describe spray booth operation | - Overall function of spray booth  
  o Environmental considerations  
  o Cost-effectiveness  
  o Job quality  
- Climate control  
- Cycles  
  o Spray  
  o Purge  
  o Bake  
  o Cool down  
- Pressure adjustment  
  o Negative  
  o Positive  
- Temperature adjustment  
- Air flow  
- Interlock switch |
| 2. Operate a spray booth | - Utilize spray booth space  
  o Vehicle positioning  
  o Parts placement  
- Inspect operating parameters  
- Manage operation  
  o Temperature  
  o Pressure  
  o Troubleshoot problems  
- Monitor humidity  
- Maintain spray booth (see B2) |
Achievement Criteria

Performance  The learner will operate a spray booth.

Conditions  The learner will be given:
- A part or vehicle
- Access to a booth
- Manometer or magnehelic
- Access to booth manufacturers’ recommendations

Criteria  The learner will be evaluated on:
- Safety
- Placement of part or vehicle in the booth
- Achieving the correct settings
- Housekeeping
Objectives
To be competent in this area, the individual must be able to:
- Describe the drying and curing process.
- Operate drying and curing equipment.

LEARNING TASKS

1. Describe the drying and curing process
   - Drying vs. curing
   - Evaporation
   - Oxidation
   - Cross-link
   - Thermoset
   - Thermoplastic
   - Flash time
   - Productivity

2. Describe drying and curing equipment
   - Types
     - Infra-red
     - UV
     - Forced air
   - Thermometers

3. Operate drying and curing equipment
   - Paint manufacturers’ recommendations
   - Vehicle protection
   - Distance
   - Time
   - Temperature
     - Surface
     - Metal
     - Cool down

 Achievement Criteria

Performance The learner will select and operate drying and curing equipment.

Conditions The learner will be given:
- Vehicle or component in need of drying or curing
- Access to drying and curing equipment
- Access to paint and equipment manufacturers’ recommendations

Criteria The learner will be evaluated on:
- Safety
- Selection of drying and curing equipment
- Operation as per paint and equipment manufacturers’ recommendations
Line (GAC): G USE EQUIPMENT
Competency: G4 Use paint manufacturers’ software and equipment

Objectives
To be competent in this area, the individual must be able to use paint manufacturers’ software and equipment.

LEARNING TASKS
1. Describe paint manufacturers’ software and equipment
   • Software
     o Applications (Apps)
     o Technical data sheets (TDS)
     o SDS
     o Mixing ratios
     o Tracking
       - Product inventory
       - Product usage
       - VOC
       - Cost
   • Equipment
     o Computers
     o Scales
     o Agitating machines
     o Mixing sticks

2. Use paint manufacturers’ software and equipment
   • Navigating software
   • Updating software
   • Mixing product
   • Equipment maintenance (See B3)

Achievement Criteria
Performance
The learner will use paint manufacturers’ software and equipment.
Conditions
The learner will be given access to paint manufacturers’ software and equipment.
Criteria
The learner will be evaluated on:
• Safety
• Housekeeping
• Use of software
• Use of equipment
Line (GAC): I PERFORM PRE-DELIVERY TASKS

Competency: I1 Remove surface imperfections

Objectives
To be competent in this area, the individual must be able to:
- Recognize post-paint defects.
- Perform basic paint polish.

LEARNING TASKS
1. Describe paint polish tools and equipment
   - Pads
   - Compounds
   - Machines

2. Recognize post-paint defects
   - Dust nibs
   - Runs
   - Orange peel
   - Fish eyes
   - Solvent pop
   - Dye-back
   - Scratches
   - Contour mapping
   - Bleed-through
   - Masking problems
     - Over-spray/under-mask
     - Over-mask
   - Colour mis-match
   - Mottling
   - Transparency

3. Perform paint polish
   - Purpose
     - Blend
     - Colour match
     - Surface rejuvenation
   - Equipment operation
     - Speed
     - Pressure
     - Angle
     - RPM
     - Heat
Achievement Criteria

Performance  The learner will perform a basic polish.

Conditions  The learner will be given:
- Vehicle or component to polish
- Polishing tools and equipment

Criteria  The learner will be evaluated on:
- Safety
- Product selection
- Quality of polishing
- Equipment use
Line (GAC): I PERFORM PRE-DELIVERY TASKS
Competency: I2 Install trim and accessories

Objectives
To be competent in this area, the individual must be able to install trim and accessories.

LEARNING TASKS
1. Install trim and accessories

CONTENT
- Prep (See E1)
- Tools
- Fasteners
- Adhesives
- Sequence to install
- Prepare trim and accessories for installation
- Fresh paint considerations
- Protect surfaces

Achievement Criteria
Performance The learner will install trim and accessories.
Conditions The learner will be given:
- Vehicle
- Trim and accessories
- Tools
Criteria The learner will be evaluated on:
- Safety
- Method of installation
- Fit and finish
Automotive Painter
(Automotive Refinishing Technician)
Program Content
Automotive Painter
(Automotive Refinishing Technician)

Line (GAC): D PLAN WORK
Competency: D1 Perform inspection

Objectives
To be competent in this area, the individual must be able to evaluate the refinish area to determine next steps.

LEARNING TASKS

1. Evaluate the refinish area to determine next steps

CONTENT
- Review work order
  - Work complete
  - Parts are present
  - Parts have been prepped
- Blend panel
- Shop standards
- Defects
  - Sand scratches
  - Colour mismatch
  - Sand through
  - Under-sanding
  - Chips
  - Pinholes
  - Under-mask
  - Over-mask

Achievement Criteria
Performance The learner will perform refinish area evaluations on various surfaces.
Conditions The learner will be given refinish areas to assess.
Criteria The learner will be evaluated on accuracy of evaluations.
Program Content
Automotive Painter
(Automotive Refinishing Technician)

Line (GAC): D PLAN WORK
Competency: D2 Contribute to development of repair estimate

Objectives
To be competent in this area, the individual must be able to contribute to the development of repair estimate.

LEARNING TASKS

1. Describe repair estimate
   • Outlines all work to be performed
   • Developed by estimator in consultation with refinishing staff

2. Identify type of finish
   • Single stage
   • Two-stage
   • Multi-stage
   • Two-tone
   • Texture
   • Gloss level
   • Previous repairs

3. Identify blend requirements
   • Size of repair
   • Locations
   • Adjacent panels
   • Previous colour match
   • Condition of blend panels
   • Panel to panel
   • Cut-off points

4. Contribute to the development of the repair estimate
   • Painter advises on:
     o Finish
     o Blend requirements

Achievement Criteria
Performance The learner will create a repair estimate.
Conditions The learner will be given:
   • Damaged vehicle
   • Repair estimate software
Criteria The learner will be evaluated on accuracy of the repair estimate.
**Line (GAC):** D  **PLAN WORK**  
**Competency:** D3  Organize production schedule

**Objectives**
To be competent in this area, the individual must be able to describe the development of a production schedule.

<table>
<thead>
<tr>
<th>LEARNING TASKS</th>
<th>CONTENT</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Describe production schedules</td>
<td>• Description of work in progress (WIP)</td>
</tr>
<tr>
<td></td>
<td>• Sequence of WIP</td>
</tr>
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<td></td>
<td>• Target timelines</td>
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<tr>
<td>2. Describe development of a production schedule</td>
<td>• Shop management system</td>
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<td>• Cycle times</td>
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<td></td>
<td>• Customer expectations</td>
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<td>• Insurance expectations</td>
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<td>• Parts availability</td>
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<td></td>
<td>• Booth management</td>
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<td></td>
<td>• Communicate with:</td>
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<td>o Partsperson</td>
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<td></td>
<td>o Prep technician</td>
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<td>o Repair technician</td>
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<td></td>
<td>o Production manager</td>
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<td>o Detailer</td>
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<td></td>
<td>o Customer</td>
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<tr>
<td>3. Describe the maintenance of a production schedule</td>
<td>• Update</td>
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<td></td>
<td>• Department communication</td>
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<td></td>
<td>• Re-work</td>
</tr>
</tbody>
</table>

**Achievement Criteria**

**Performance**  
The learner will prepare a production schedule.

**Conditions**  
The learner will be given:
- Multiple vehicles or components
- Multiple work orders
- Delivery dates

**Criteria**  
The learner will be evaluated on completeness and effectiveness of the production schedule.
Program Content
Automotive Painter
(Automotive Refinishing Technician)

**Line (GAC):** E  PREPARE SURFACE

**Competency:** E1  Prepare vehicle for refinishing

**Objectives**
To be competent in this area, the individual must be able to prepare a panel for paint.

**LEARNING TASKS**
1. Prepare a vehicle for refinishing

**CONTENT**
- Blow off
  - Interior
  - Exterior
- Solvent clean
- Mask
- Final wipe
- Anti-static
- Tack
- Final visual inspection

**Achievement Criteria**

**Performance**
The learner will prepare a vehicle for paint.

**Conditions**
The learner will be given:
- A vehicle or component
- A work order
- Cleaning materials
- Required tools

**Criteria**
The learner will be evaluated on:
- Safety
- Material selection
- Cleaning technique
Line (GAC): H USE REFINISHING MATERIAL
Competency: H1 Mix paint

Objectives
To be competent in this area, the individual must be able to:
- Describe paint and additives.
- Mix paint.

<table>
<thead>
<tr>
<th>LEARNING TASKS</th>
<th>CONTENT</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Describe paint</td>
<td>• Types</td>
</tr>
<tr>
<td></td>
<td>o Water-borne</td>
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<td></td>
<td>o Solvent-based</td>
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<td></td>
<td>• Components</td>
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<td>o Toners</td>
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<td></td>
<td>o Binders</td>
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<td>o Resins</td>
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<td></td>
<td>o UV screeners</td>
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<td></td>
<td>• Clear coats</td>
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<td></td>
<td>o Nano-technology</td>
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<td></td>
<td>o Scratch-resistant</td>
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<td>o Ceramic</td>
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<td>• Sealers</td>
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<td>o Tintable</td>
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<td></td>
<td>o Non-tintable</td>
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<td></td>
<td>o Plastic</td>
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<td>o Transparent</td>
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<td></td>
<td>• Powder coating</td>
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<td>• Pigments</td>
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<td></td>
<td>o Metallics</td>
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<td>o Pearls</td>
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<td>o Micas</td>
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<td>o Xirallic</td>
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<td>o Talc</td>
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<td>o Flex (colour-shift)</td>
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<td>o Dyes</td>
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<td>• Functions/characteristics</td>
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<td></td>
<td>o Durability</td>
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<td></td>
<td>o UV protection</td>
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<td>o Colour</td>
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<td></td>
<td>o Adhesion</td>
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<td></td>
<td>o Gloss</td>
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</tbody>
</table>

Industry Training Authority
### LEARNING TASKS

#### CONTENT

- **Dry time**
- **Evaporation rate**
- **Reductions**
- **Curing**
- **Water-resistance**
- **Chemical resistance**

- **Handling**
  - **Disposal**
  - **Storage**

2. **Describe additives**

- **Flattening agents**
- **Blending agents**
- **Fish eye eliminators**
- **Accelerators**
- **Retarders**
- **Solvents**
- ** Hardeners**
  - **Base coat catalysts**
  - **Isocyanates/crosslinking**

- **Handling**
  - **Disposal**
  - **Storage**

3. **Perform mixing procedures**

- **Manufacturers' specifications**
- **Equipment selection**
- **Product selection**
- **Amounts**
- **Computerized tracking**
  - **Costs**
  - **Paint codes**
  - **Mix history**
  - **Custom formulas**
  - **Overpour compensation**
  - **VOC usage**
  - **Inventory**
  - **Mix ratios**
  - **Colour adjustment**
  - **Ground coat (value shade)**

- **Mixing cups**
  - **Straining**
- **Mixing sticks**
- **Agitation**
- **Housekeeping**
Achievement Criteria 1

Performance  The learner will mix paint manually.

Conditions  The learner will be given:

- Hard copy of formula and quantity
- Manufacturers’ specifications (TDS)
- Materials and equipment

Criteria  The learner will be evaluated on:

- Safety
- Accuracy
- Efficiency
- Housekeeping

Achievement Criteria 2

Performance  The learner will mix paint using manufacturers’ software.

Conditions  The learner will be given:

- Vehicle
- Paint code and quantity
- Materials and equipment

Criteria  The learner will be evaluated on:

- Safety
- Accuracy
- Efficiency
- Housekeeping
Program Content
Automotive Painter
(Automotive Refinishing Technician)

Line (GAC): H USE REFINISHING MATERIAL
Competency: H2 Perform colour matching

Objectives
To be competent in this area, the individual must be able to:
• Describe colour theory.
• Describe colour matching.

LEARNING TASKS
1. Describe colour theory
   • Value
   • Hue
   • Chroma
   • Colour spectrum (ROYGBIV)
   • Primary and secondary colours
   • Low and high strength colours
   • Face, pitch, and flop of colour
   • Variance
     o OEM level
     o Industry level
   • Light source
   • Metamerism
   • Colour-perception testing
   • Equipment
     o Spectrophotometer
     o Sun gun

2. Describe colour matching
   • Sun gun
   • Spray out card
   • Let down panel
   • Draw down
   • Colour chips
   • Variance deck
   • Colour formula adjustments
   • Formula parameters
   • Tint characteristics
   • Comparison of colour to vehicle
   • Adequate hiding
Line (GAC): H USE REFINISHING MATERIAL
Competency: H3 Apply refinishing materials

Objectives
To be competent in this area, the individual must be able to:
• Describe topcoat application techniques.
• Apply topcoats.

LEARNING TASKS
1. Describe topcoat application techniques
   • Spray techniques
     o Distance
     o Overlap
     o Gun speed
     o Trigger control
     o Air pressure
     o Fanning/arcing
     o Heeling
   • Job size
     o Spot repair
     o Partials
     o Complete
   • Spray sequence
     o Routing
     o Wet edge
   • Tricoat
     o Let down panel
     o Specialty/candy
   • Tacking between coats
   • Blending
     o Orientation coat
     o Wet bed
     o Open blend (solvent blend)
   • Matte finishes
   • Textured finishes

2. Apply topcoats
   • Manufacturers’ specifications
     o Single stage
     o Two stage
     o Multi stage
     o Suggested techniques
     o Flash time
   • Material selection
     o Solvent
LEARNING TASKS

CONTENT

- Hardeners
- Additives
- Value shade
- Gun selection
- Booth set up
  - Settings
  - Vehicle/parts positioning
- Spray out card
- Spray topcoats

Achievement Criteria 1

Performance The learner will perform refinishing procedures, such as:
- Spot
- Partial
- Complete

Conditions The learner will be given:
- Vehicle or component
- Material and equipment
- Access to manufacturers’ specifications

Criteria The learner will be evaluated on:
- Safety
- Quality
- Coverage
- Mil thickness
- Application technique
- Housekeeping

Achievement Criteria 2

Performance The learner will apply refinishing materials, such as:
- Sealer
- Single stage
- Base coat/clear coat
- Multi-stage

Conditions The learner will be given:
- Vehicle or component
- Material and equipment
- Access to manufacturers’ specifications

Criteria The learner will be evaluated on:
- Safety
- Quality
- Coverage
- Mil thickness
- Application technique
- Housekeeping
Line (GAC): H USE REFINISHING MATERIAL
Competency: H4 Troubleshoot paint problems

Objectives
To be competent in this area, the individual must be able to:
• Describe paint problems and their causes.
• Describe methods for correcting paint problems.

LEARNING TASKS
1. Describe paint problems
   • Orange peel
   • Sags and runs
   • Dry spray
   • Sand piling
   • Mismatch
   • Fish eyes
   • Dirt nips
   • Delamination
   • Soft paint
   • Die back
   • Solvent trapping
   • Halo
   • Mottling
   • Wrinkling
   • Sand scratches
   • Checking
   • Staining
   • Blushing
   • Contour mapping
   • Topcoat absorption (hold out)
   • Overspray
   • Customer satisfaction

2. Describe causes of paint problems
   • Contamination
     o Dirty equipment
     o Environment
     o Painter
     o Improper cleaning
   • Poor spray technique
   • Improper mixing procedures
   • Inter-mixing of products
   • Expired product
LEARNING TASKS

CONTENT

- Poor equipment
- Poor booth conditions
- Taking short cuts
- Miscommunications

3. Describe methods of correcting paint problems

- Prevention
  - Good work habits
  - Product knowledge
  - Preparation technique
  - Equipment knowledge
  - Corrosion protection
  - Application technique
  - Substrate knowledge
  - Mil thickness
  - Standard Operating Procedures (SOPs)
  - Training
  - Housekeeping

- During spraying
  - Fish eye eliminator
  - Sanding
  - Tacking
  - Taping
  - Re-coat
  - Adjust
    - Application technique
    - Environmental conditions
    - Equipment
    - Material
LINE (GAC): PERFORM PRE-DELIVERY TASKS

Competency: Remove surface imperfections

Objectives
To be competent in this area, the individual must be able to:
• Evaluate surface imperfections.
• Remove surface imperfections.

LEARNING TASKS

1. Evaluate surface imperfections
   • Repairable
   • Non-repairable

2. Remove surface imperfections
   • Wet sanding
     o De-nib
     o Block
     o Hand
     o Machine
   • Solvents
   • Steel wool
   • Compounding
   • Polishing
   • Tools
     o Razor blades
     o Nib files
     o Clay product
     o Polishers

Achievement Criteria

Performance The learner will remove surface imperfections, such as nubs, runs and orange peel.

Conditions The learner will be given:
• Vehicle or component with surface imperfection
• Materials and equipment
• Access to manufacturers’ specifications

Criteria The learner will be evaluated on:
• Safety
• Product and tool selection
• Efficiency
• Quality of repair
• Housekeeping
Line (GAC): I PERFORM PRE-DELIVERY TASKS
Competency: I3 Apply decals and striping

Objectives
To be competent in this area, the individual must be able to:
- Remove decals and striping.
- Apply decals and striping.

LEARNING TASKS
1. Describe decals and striping
   CONTENT
   - Decals
     o OEM
     o Aftermarket
     o Vinyl
     o Clear (OEM stone guard)
     o Applique (black-out tape)
     o Pressure sensitive
     o Reactive (adhesive)
   - Striping
     o Accent stripes

2. Remove decals and striping
   CONTENT
   - Eraser wheel
   - Heat gun
   - Plastic razor blade
   - Release solvent

3. Apply decals and striping
   CONTENT
   - Clean surface
   - Cured surface
   - Decal location
   - Backer removal
   - Surface temperature
   - Manufacturers’ specifications
   - Remove air bubbles
   - Wet set
   - Dry set
   - Equipment and materials
     o Plastic razor blade/spreader
     o Detergent
     o Alcohol
     o Water
     o Tape
     o Squeegee
     o Knife
     o Heat gun
LEARNING TASKS

CONTENT

• Application techniques
  o Sequence
  o Hinge method

4. Describe wrapping

• Full body graphic
• Paint protection film

Achievement Criteria

Performance The learner will remove and install decals and stripes.

Conditions The learner will be given:
  • Access to a vehicle
  • Decals
  • Decal removal materials and equipment
  • Decal installation materials and equipment
  • Access to manufacturers’ specifications

Criteria The learner will be evaluated on:
  • Safety
  • Quality of decal and stripe removal
  • Quality of decal and stripe application
  • Housekeeping
Line (GAC): I PERFORM PRE-DELIVERY TASKS
Competency: I4 Perform final check

Objectives
To be competent in this area, the individual must be able to perform a final check.

LEARNING TASKS
1. Perform a final check

CONTENT
- Completion of work order
- Completion of job pre-delivery checklist
  - Contents
  - Importance
  - Quality standard
  - Customer relations
- Colour match
- Overspray
- Blend areas
- Polish residue

Achievement Criteria
Performance The learner will perform a final check.
Conditions The learner will be given:
  - Refinished vehicle or component
  - Work order
  - Pre-delivery checklist
Criteria The learner will be evaluated on:
  - Efficiency
  - Accuracy
  - Thoroughness of final check
Section 4

TRAINING PROVIDER STANDARDS
Facility Requirements

Classroom Area
- Comfortable seating and tables suitable for training, teaching, and lecturing
- Compliance with all local and national fire codes and occupational safety requirements
- Windows must have shades or blinds to adjust sunlight
- Heating/Air Conditioning for comfort all year round
- The minimum requirements are a well heated and ventilated classroom 900 square feet (e.g. 30’ x 30’) with tables and chairs suitable for adults
- The classroom should be equipped with a large whiteboard (4’ x 8’), a flip chart, a white matte screen (6 or 7 ft.), an overhead projector, and a TV/VCR
- Note: A multi-media projector with laptop computer is advisable but optional

Shop Area
- 3,000 square feet for 12 students
- 4,000 square feet for 14 students
- 5,000 square feet for 16 students
- Ceiling must be a minimum height of 16’ or height approved through the building engineer
- Appropriate lifting devices (hoists) used in industry
- Suitable demonstration area
- Lighting appropriate for good vision in ambient light
- Compliance with all local and national fire codes and occupational safety requirements
- Must meet municipal and provincial bylaws in regards to waste water management and environmental laws
- Adequate hoist to student ratio
Tools and Equipment

Standard Tool Kit

- Air powered tool
- Air pressure gauge
- Blow gun
- Clip removal tool
- Decal removal tool
- Drill
- Dual action sander
- File
- Grinder
- Hand cutting tool
- Hand tool
- Heat gun
- Plastic spreader
- Putty board
- Putty knife
- Ratchet socket
- Rubber squeegee
- Sanding block
- Sanding board
- Screwdriver
- Socket wrench
- Socket
- Sponge block
- Spray bottle
- Stop watch
- Tape measure
- Tire chuck
- Trim removing tool
- Trouble light
- Tweezers
- Upholstery tool

Safety and First Aid Equipment

- Disposal containers
- Dust extraction equipment
- Dust mask
- Ear protectors
- Explosion proof room
- Explosion proof wiring
- Eye wash station
- Fire extinguishers
- First aid kit
- Gloves (work & rubber)
- Goggles
- Invisible glove
- Paint suit
- Protective clothing
- Respirator (air purifying)
- Respirator (air supplied)
- Safety eyewear
- Safety footwear
- Spill kits
Refinishing Equipment

- Air brush
- Anti-static devices
- Automatic gun washing system
- Blow gun
- Colour chips
- Colour corrective bulbs
- Computer and software
- Curing lamps
- Film thickness gauge (wet and dry)
- Gravel guard gun
- Ground cable
- Gun washer
- Heat lamps
- Liquid mask
- Measuring sticks
- Microfiche reader
- Mixing cups
- Mixing machine
- Mixing scales
- Mixing sticks
- Oilless compressor
- Paint shaker
- Paint strainers
- Pressure washers
- Schutz gun
- Solvent recycler
- Spectrophotometer
- Spray booth
- Spray gun (electrostatic)
- Spray gun (gravity feed)
- Spray gun (HVLP)
- Spray gun (LVLP)
- Spray gun (pressure pot system)
- Spray gun (suction feed)
- Spray out cards
- Thermometer
- UV lamps
- Variant cards
- Viscosity cups

Detailing and Cleaning Equipment

- Abrasive pad
- Anti-corrosive applicator
- Buffer pad
- Buffer/polisher
- Cleaning brush
- Cleaning clothes
- Cleaning equipment
- Cleaning solutions
- Interior cleaner
- Magnifying glass
- Moulding cutter
- Polisher
- Razor blade
- Razor blade holder
- Run-nib file
- Spray bottle
- Stripe cutter
- Tack cloths
- Vacuum cleaner
### Shop Equipment

- Air compressor
- Air dryer
- Air hoses
- Air makeup system
- Air transformer
- Axle stand
- Brooms
- Caulking gun (manual/air)
- Floor jack
- Floor squeegees
- Hangers
- Hoist
- Manometer
- Masking cart
- Media blasting equipment
- Moisture trap
- Moulding remover
- Parts and bumper stands
- Plastic rivet gun
- Pneumatic sanders
- Pressure washer
- Regulators
- Solvent recycler
- Spreaders
- Stands
- Step ladders
- Windshield removing tools
- Wire brush

### Student Tools (supplied by student)

**Required**
- CSA approved safety glasses
- CSA approved footwear
- Coveralls

**Recommended**
- Gun (Automotive Painter (Automotive Refinishing Technician))
Reference Materials

Required Reference Materials
N/A

Recommended Resources
N/A

Suggested Texts
- Collision Repair and Refinishing (2nd Edition), Thomas and Jund
- I-Car, https://www.i-car.ca/

NOTE:
This list of Reference Materials is for training providers. Apprentices should contact their preferred training provider for a list of recommended or required texts for this program.
Instructor Requirements

Occupation Qualification
The instructor must possess:

- Automotive Painter (Automotive Refinishing Technician) – Certificate of Qualification with Interprovincial Red Seal endorsement
  or
- Motor Vehicle Body Repairer (Metal & Paint)(Automotive Collision Repair Technician) – Certificate of Qualification with Interprovincial Red Seal endorsement

Work Experience

- A minimum of 5 years experience working in the industry as an Automotive Painter (Automotive Refinishing Technician) jjourneyman
- Must have diverse Automotive Painter (Automotive Refinishing Technician) industry experience including experience in all competencies in this program
- Must have recent Automotive Painter (Automotive Refinishing Technician) trade experience

Instructional Experience and Education

It is preferred that the instructor also possesses one of the following:

- Provincial Instructor’s Diploma, or be registered in the program to be completed within a five year period
- Instructors Certificate (minimum 30 hour course)
- Bachelors or Masters degree in Education
Appendices
Appendix A

Assessment Guidelines
Program: Automotive Refinishing Prep Technician

Training Provider Component: In-School Technical Training

Training providers delivering Automotive Refinishing Prep Technician apprenticeship in-school technical training are required to enter the following information in ITA Direct Access for each apprentice:

- An in-school mark in the form of a percentage

Calculation tables showing the subject competencies, level percentage weightings and level examination weightings are shown in the Grading Sheet: “Subject Competencies and Weightings” section of this document.

Automotive Refinishing Prep Technician in-school marks are calculated by:

- Totaling the level theory competency results as noted in the competencies and weightings tables and multiplying the total by 60% to produce a weighted theory result;
- Totaling the level practical competency results as noted in the competencies and weightings tables and multiplying the total by 40% to produce a weighted practical result;
- Adding the weighted theory and practical competency results together to determine the final in-school result. A mark of 70% or greater is required to pass the level and write the Certificate of Qualification exam.

ITA Certificate of Qualification Exam

In order to achieve certification, Automotive Refinishing Prep Technician apprentices are required to write the Automotive Refinishing Prep Technician ITA Certificate of Qualification exam after completing in-school technical training. Apprentices must have passed in-school technical training or be approved challengers to sit the exam. A score of 70% or greater is required for a pass.

ITA Certificate of Qualification exams should be requested by training providers via the usual ITA procedure.

The ITA will administer and invigilate ITA Certificate of Qualification exams and score and record exam results in ITA Direct Access.
## Grading Sheet: Subject Competency and Weightings

<table>
<thead>
<tr>
<th>PROGRAM: IN-SCHOOL TRAINING:</th>
<th>Automotive Refinishing Prep Technician (C of Q)</th>
</tr>
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<tbody>
<tr>
<td>ITA DIRECT ACCESS CODE:</td>
<td>0224RP01</td>
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<table>
<thead>
<tr>
<th>LINE</th>
<th>SUBJECT COMPETENCIES</th>
<th>THEORY WEIGHTING</th>
<th>PRACTICAL WEIGHTING</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>PERFORM SAFETY-RELATED FUNCTIONS</td>
<td>15%</td>
<td>10%</td>
</tr>
<tr>
<td>B</td>
<td>MAINTAIN TOOLS AND EQUIPMENT</td>
<td>15%</td>
<td>15%</td>
</tr>
<tr>
<td>C</td>
<td>USE DOCUMENTATION</td>
<td>5%</td>
<td>0%</td>
</tr>
<tr>
<td>D</td>
<td>PLAN WORK</td>
<td>10%</td>
<td>5%</td>
</tr>
<tr>
<td>E</td>
<td>PREPARE SURFACE</td>
<td>20%</td>
<td>25%</td>
</tr>
<tr>
<td>F</td>
<td>USE REPAIR MATERIALS</td>
<td>15%</td>
<td>20%</td>
</tr>
<tr>
<td>G</td>
<td>USE EQUIPMENT</td>
<td>15%</td>
<td>20%</td>
</tr>
<tr>
<td>I</td>
<td>PERFORM PRE-DELIVERY TASKS</td>
<td>5%</td>
<td>5%</td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>100%</td>
<td>100%</td>
</tr>
</tbody>
</table>

Calculated by the Training Provider
Automotive Refinishing Prep Technician in-school theory & practical subject competency weighting

60% 40%

Training Provider enters final in-school mark into ITA Direct Access
Apprentices must achieve a minimum 70% for the final in-school mark to be eligible to write the Automotive Refinishing Prep Technician Certificate of Qualification exam.

IN-SCHOOL FINAL %

All apprentices who complete the Automotive Refinishing Prep Technician program with a FINAL level mark of 70% or greater will write the Automotive Refinishing Prep Technician Certificate of Qualification examination as their final assessment.

ITA will enter the apprentices’ Automotive Refinishing Prep Technician Certificate of Qualification examination mark in ITADA. A minimum mark of 70% on the examination is required for a pass.
Program: Automotive Painter (Automotive Refinishing Technician)

Training Provider Component: In-School Technical Training

Training providers delivering Automotive Painter (Automotive Refinishing Technician) apprenticeship in-school technical training are required to enter the following information in ITA Direct Access for each apprentice:

- An in-school mark in the form of a percentage

Calculation tables showing the subject competencies, level percentage weightings and level examination weightings are shown in the Grading Sheet: “Subject Competencies and Weightings” section of this document.

Automotive Painter (Automotive Refinishing Technician) in-school marks are calculated by:

- Totaling the level *theory* competency results as noted in the competencies and weightings tables and multiplying the total by 35% to produce a weighted theory result;

- Totaling the level *practical* competency results as noted in the competencies and weightings tables and multiplying the total by 65% to produce a weighted practical result;

- Adding the weighted theory and practical competency results together to determine the final in-school result. A mark of 70% or greater is required to pass the level and write the Automotive Painter Red Seal exam.

**Interprovincial Red Seal Exam**

In order to achieve certification with the Red Seal Endorsement, Automotive Painter (Automotive Refinishing Technician) apprentices are required to write the Automotive Painter Interprovincial Red Seal exam after completing all levels of in-school technical training. Apprentices must have passed all levels of in-school technical training or be approved challengers to sit the exam. A score of 70% or greater is required for a pass.

Interprovincial Red Seal exams should be requested by training providers via the usual ITA procedure.

The ITA will administer and invigilate Interprovincial Red Seal exams and score and record exam results in ITA Direct Access.
# Grading Sheet: Subject Competency and Weightings

<table>
<thead>
<tr>
<th>PROGRAM:</th>
<th>IN-SCHOOL TRAINING:</th>
<th>ITA DIRECT ACCESS CODE:</th>
<th>Automotive Painter (Automotive Refinishing Technician) (RS)</th>
<th>0124PR01</th>
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<th>SUBJECT COMPETENCIES</th>
<th>THEORY WEIGHTING</th>
<th>PRACTICAL WEIGHTING</th>
</tr>
</thead>
<tbody>
<tr>
<td>D</td>
<td>PLAN WORK</td>
<td>20%</td>
<td>15%</td>
</tr>
<tr>
<td>E</td>
<td>PREPARE SURFACE</td>
<td>5%</td>
<td>5%</td>
</tr>
<tr>
<td>H</td>
<td>USE REFINISHING MATERIAL</td>
<td>65%</td>
<td>60%</td>
</tr>
<tr>
<td>I</td>
<td>PERFORM PRE-DELIVERY TASKS</td>
<td>10%</td>
<td>20%</td>
</tr>
<tr>
<td></td>
<td><strong>Total</strong></td>
<td><strong>100%</strong></td>
<td><strong>100%</strong></td>
</tr>
</tbody>
</table>

Calculated by the Training Provider
Automotive Painter (Automotive Refinishing Technician)
in-school theory & practical subject competency weighting
35% 65%

Training Provider enters final in-school mark into ITA Direct Access
Apprentices must achieve a minimum 70% for the final in-school mark to be eligible to write the Automotive Painter Interprovincial Red Seal exam.

<table>
<thead>
<tr>
<th>IN-SCHOOL FINAL %</th>
</tr>
</thead>
</table>

All apprentices who complete the Automotive Painter (Automotive Refinishing Technician) program with a FINAL level mark of 70% or greater will write the Automotive Painter Interprovincial Red Seal examination as their final assessment.

ITA will enter the apprentices’ Automotive Painter Red Seal Interprovincial examination mark in ITADA. A minimum mark of 70% on the examination is required for a pass.
Appendix B
Glossary of Acronyms
Glossary of Acronyms used in this document

<table>
<thead>
<tr>
<th>Acronym</th>
<th>Definition</th>
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<tbody>
<tr>
<td>CSA</td>
<td>Canadian Standards Association</td>
</tr>
<tr>
<td>DTM</td>
<td>Direct To Metal</td>
</tr>
<tr>
<td>HVAC</td>
<td>Heating, Ventilation and Air Conditioning</td>
</tr>
<tr>
<td>JHA</td>
<td>Job Hazard Analysis</td>
</tr>
<tr>
<td>JT</td>
<td>Judgement Time</td>
</tr>
<tr>
<td>OEM</td>
<td>Original Equipment Manufacturer</td>
</tr>
<tr>
<td>OHS</td>
<td>Occupational Health and Safety</td>
</tr>
<tr>
<td>PASS</td>
<td>Pull, Aim, Squeeze, Sweep</td>
</tr>
<tr>
<td>PPE</td>
<td>Personal Protective Equipment</td>
</tr>
<tr>
<td>ROYGBIV</td>
<td>Red, Orange, Yellow, Green, Blue, Indigo, Violet</td>
</tr>
<tr>
<td>RPM</td>
<td>Revolutions Per Minute</td>
</tr>
<tr>
<td>SDS</td>
<td>Safety Data Sheet</td>
</tr>
<tr>
<td>SMC</td>
<td>Sheet Molding Compound</td>
</tr>
<tr>
<td>SOP</td>
<td>Standard Operating Procedure</td>
</tr>
<tr>
<td>SRS</td>
<td>Supplemental Restraint System</td>
</tr>
<tr>
<td>TDS</td>
<td>Technical Data Sheet</td>
</tr>
<tr>
<td>UV</td>
<td>Ultra Violet</td>
</tr>
<tr>
<td>VIN</td>
<td>Vehicle Identification Number</td>
</tr>
<tr>
<td>VOC</td>
<td>Volatile Organic Compound</td>
</tr>
<tr>
<td>WHMIS</td>
<td>Workplace Hazardous Materials Information System</td>
</tr>
<tr>
<td>WIP</td>
<td>Work In Progress</td>
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</table>