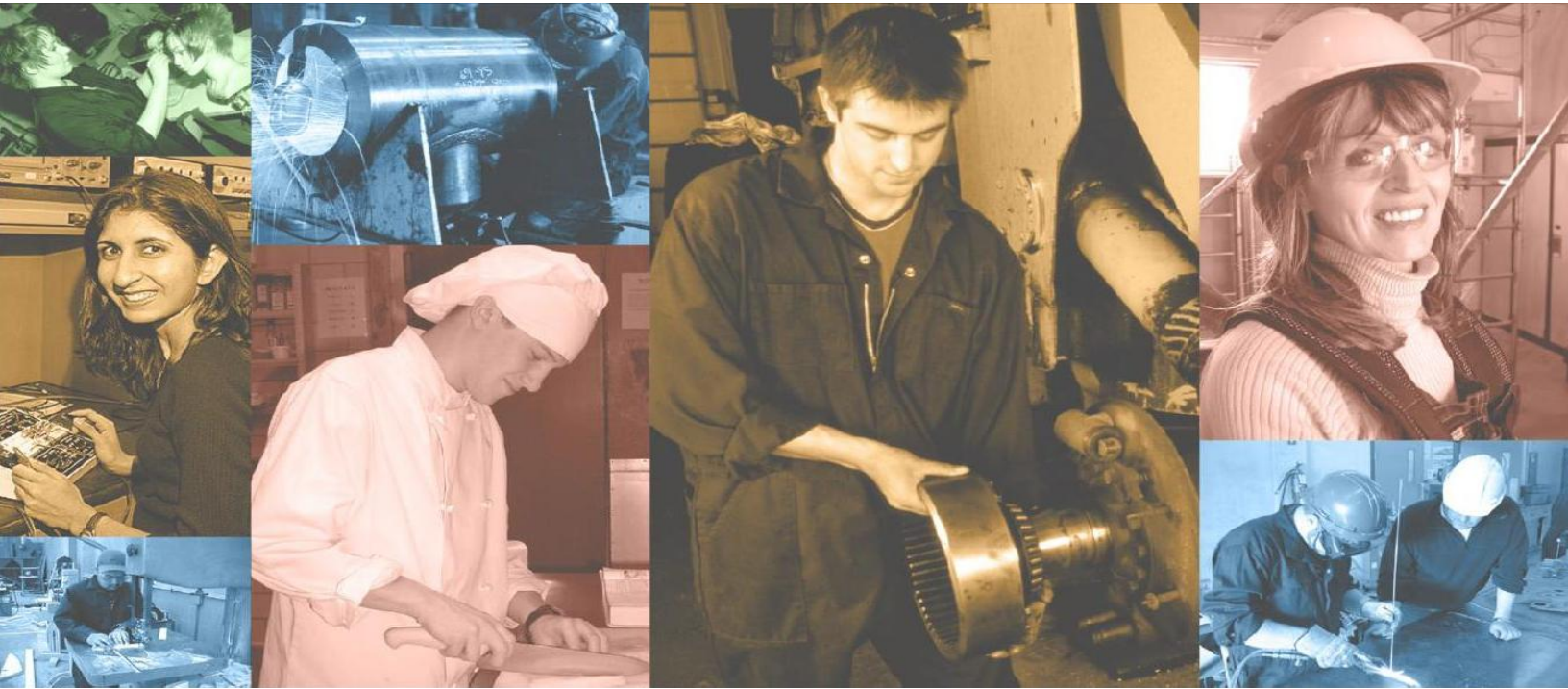


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# Pre-Employment Plan of Training Auto Body and Collision Technician



Government of Newfoundland and Labrador  
Department of Immigration, Population Growth and Skills  
Apprenticeship and Trades Certification Division

March 2018

### Preface

This curriculum standard is aligned with the 2018 Level 1 Newfoundland & Labrador Curriculum Standard (NLCS) and the 2010 National Occupational Analysis (NOA) for the Auto Body and Collision Technician trade. It describes the curriculum content for the Auto Body and Collision Technician Pre-employment training program.

### Acknowledgements

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We offer a sincere thank you.

### Contact Information

Department of Immigration, Population Growth and Skills  
Apprenticeship and Trades Certification Division  
Tel: 709-729-2729 / 1-877-771-3737  
Email: [app@gov.nl.ca](mailto:app@gov.nl.ca)  
Web: [www.gov.nl.ca/atcd](http://www.gov.nl.ca/atcd)

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A. NOA Comparison Chart

A National Occupational Analysis (NOA) comparison chart is located in the Newfoundland and Labrador Curriculum Standard (NLCS).

## B. Program Structure

For each and every course, a formal assessment is required for which 70% is the pass mark. A mark of 70% must be attained in both the theory examination and the practical project assignment, where applicable.

The order of course delivery within each level can be determined by the educational agency, as long as pre-requisite conditions are satisfied.

Upon completion of an entry level program, individuals may be required to complete other certifications (employer or job site specific) in order to gain employment.

A pre-employment student who becomes an apprentice will also be required to complete Levels 2, 3 & 4 in the NLCS.

<b>Pre-employment</b>				
<b>Course No.</b>	<b>IPG No.</b>	<b>Course Name</b>	<b>Hours</b>	<b>Pre-Requisite(s)</b>
TS1510	-	Occupational Health and Safety	6	None
TS1520	-	WHMIS	6	None
TS1530	-	Standard First Aid	14	None
AB1610	ABR-100	Safety	12	None
AB1600	ABR-105	Trade Related Documents	12	None
AB1620	ABR-115	Tools and Equipment	45	AB1610
AB1630	ABR-120	Fasteners and Adhesives	12	AB1610 AB1620
AB1641	ABR-125	Vehicle Construction	16	AB1610
AB1651	ABR-130	Pre/Post-Repair Vehicle Inspection	12	None
AB1660	ABR-135	Metallurgy	30	AB1641
AB1671	ABR-140	Cutting and Heating	30	AB1620
AB1680	ABR-145	Gas Metal Arc Welding (GMAW)-MIG	45	AB1620 AB1671
AB1690	ABR-155	Resistance Spot Welding (RSW)	15	AB1620 AB1671

Plan of Training – Auto Body and Collision Technician

<b>Pre-employment</b>				
<b>Course No.</b>	<b>IPG No.</b>	<b>Course Name</b>	<b>Hours</b>	<b>Pre-Requisite(s)</b>
AB1701	ABR-160	Metal Working 1 (Mild Steel)	55	AB1660
AB1711	ABR-165	Body Fillers and Abrasives	40	AB1701
AB1721	ABR-170	Corrosion Protection	40	AB1701
AB1732	ABR-175	Surface Preparation (Cleaning, Stripping and Masking)	85	AB1721
AB1750	ABR-185	Stationary Glass	30	AB1760
AB1760	ABR-190	Moveable Glass and Hardware	30	AB1790
AB1820	ABR-195	Primers, Surfacers and Sealers	40	AB1721
AB1801	ABR-200	Refinishing 1	75	AB1820
AB1780	ABR-205	Cleaning and Detailing	30	AB1801
AB1790	ABR-210	Upholstery, Trim and Hardware	30	AB1620
AB1811	ABR-235	Batteries	10	AB1610
AB2811	ABR-225	Non-Structural Components	60	AB1641 AB1660
OT1220		Workplace Exposure	60	None
AM1000	-	Introduction to Essential Skills	9	None
AM1101	-	Math Essentials	42	None
AM1351	-	Auto Body and Collision Math Fundamentals	42	AM1101
CM2161	-	Communication Essentials	36	None
SD1761	-	Workplace Essentials	24	None
MC1062	-	Computer Essentials	15	None
AP1102	-	Introduction to Apprenticeship	12	None
<b>Total Hours</b>			<b>1020</b>	

**\*A student who can meet the mathematics requirement through an ACUPLACER® test may be exempted from AM1100 - Math Essentials. Please check with your training institution.**



## Pre-employment

### TS1510 Occupational Health and Safety

#### **Learning Outcomes:**

- Demonstrate knowledge of interpreting the Occupational Health and Safety Act, laws and regulations.
- Demonstrate knowledge of understanding the designated responsibilities within the laws and regulations such as the right to refuse dangerous work; and the importance of reporting accidents.
- Demonstrate knowledge of how to prevent accidents and illnesses.
- Demonstrate knowledge of how to improve health and safety conditions in the workplace.

**Duration:** 6 Hours

**Pre-Requisite(s):** None

#### **Objectives and Content:**

1. Interpret the Occupational Health and Safety Act laws and regulations.
  - i. explain the scope of the act
    - application of the act
    - Federal/Provincial jurisdictions
    - Canada Labour Code
    - rules and regulations
    - private home application
    - conformity of the Crown by the Act
2. Explain responsibilities under the Act and Regulations.
  - i. duties of employer, owner, contractors, sub-contractors, employees, and suppliers

3. Explain the purpose of joint health and safety committees.
  - i. formation of committee
  - ii. functions of committee
  - iii. legislated rights
  - iv. health and safety representation
  - v. reporting endangerment to health
  - vi. appropriate remedial action
  - vii. investigation of endangerment
  - viii. committee recommendation
  - ix. employer's responsibility in taking remedial action
  
4. Examine right to refuse dangerous work.
  - i. reasonable grounds for refusal
  - ii. reporting endangerment to health
  - iii. appropriate remedial action
  - iv. investigation of endangerment
  - v. committee recommendation
  - vi. employer's responsibility to take appropriate remedial action
  - vii. action taken when employee does not have reasonable grounds for refusing dangerous work
  - viii. employee's rights
  - ix. assigning another employee to perform duties
  - x. temporary reassignment of employee to perform other duties
  - xi. collective agreement influences
  - xii. wages and benefits
  
5. State examples of work situations where one might refuse work.
  
6. Describe discriminatory action.
  - i. definition
  - ii. filing a complaint procedure
  - iii. allocated period of time a complaint can be filed with the Commission
  - iv. duties of an arbitrator under the Labour Relations Act
  - v. order in writing inclusion
  - vi. report to commission Allocated period of time to request Arbitrator to deal with the matter of the request
  - vii. notice of application
  - viii. failure to comply with the terms of an order
  - ix. order filed in the court

7. Explain duties of commission officers.
  - i. powers and duties of officers
  - ii. procedure for examinations and inspections
  - iii. orders given by officers orally or in writing
  - iv. specifications of an order given by an officer to owner of the place of employment, employer, contractor, sub-contractor, employee, or supplier
  - v. service of an order
  - vi. prohibition of persons towards an officer in the exercise of his/her power or duties
  - vii. rescinding of an order
  - viii. posting a copy of the order
  - ix. illegal removal of an order
  
8. Interpret appeals of others.
  - i. allocated period of time for appeal of an order
  - ii. person who may appeal order
  - iii. action taken by Commission when person involved does not comply with the order
  - iv. enforcement of the order
  - v. notice of application
  - vi. rules of court
  
9. Explain the process for reporting of accidents.
  - i. application of act
  - ii. report procedure
  - iii. reporting notification of injury
  - iv. reporting accidental explosion or exposure
  - v. posting of act and regulations

**Practical Requirements:**

1. Conduct an interview with someone in your occupation on two or more aspects of the act and report results.
  
2. Conduct a safety inspection of shop area.

## TS1520 Workplace Hazardous Materials Information System (WHMIS)

### Learning Outcomes:

- Demonstrate knowledge of interpreting and applying the Workplace Hazardous Materials Information System (WHMIS) Regulation under the Occupational Health and Safety Act.

**Duration:** 6 Hours

**Pre-Requisite(s):** None

### Objectives and Content:

1. Define WHMIS safety.
  - i. rationale and key elements
  - ii. history and development of WHMIS
  - iii. WHMIS legislation
  - iv. WHMIS implementation program
  - v. definitions of legal and technical terms
  
2. Examine hazard identification and ingredient disclosure.
  - i. prohibited, restricted and controlled products
  - ii. classification and the application of WHMIS information requirements
  - iii. responsibilities for classification
    - the supplier
    - the employer
    - the worker - Classification: rules and criteria
    - information on classification
    - classes, divisions and subdivision in WHMIS
    - general rules for classification
    - class A - compressed gases
    - class B - flammable and combustible materials
    - class C - oxidizing material
    - class D - poisonous and infectious material
    - class E - corrosive material
    - class F - dangerously reactive material
  - iv. products excluded from the application of WHMIS legislation
    - consumer products
    - explosives
    - cosmetics, drugs, foods and devices
    - pest control products
    - radioactive prescribed substances
    - wood or products made of wood
    - manufactured articles

- tobacco or products of tobacco
    - hazardous wastes
    - products handled or transported pursuant to the Transportation of Dangerous Goods (TDG) Act
  - v. comparison of classification systems - WHMIS and TDG
  - vi. general comparison of classification categories
  - vii. detailed comparison of classified criteria
- 3. Explain labeling and other forms of warning.
  - i. definition of a WHMIS label
    - supplier label
    - workplace label
    - other means of identification
  - ii. responsibility for labels
    - supplier responsibility
    - employer responsibility
    - worker responsibility
  - iii. introduce label content, design and location
    - supplier labels
    - workplace labels
    - other means of identification
- 4. Introduce material safety data sheets (MSDS).
  - i. definition of a material safety data sheet
  - ii. purpose of the data sheet
  - iii. responsibility for the production and availability of data sheets
    - supplier responsibility
    - employer responsibility
    - workers responsibility

**Practical Requirements:**

1. Locate WHMIS label and interpret the information displayed.
2. Locate a MSDS sheet for a product used in the workplace and determine what personal protective equipment and other precautions are required when handling this product.

TS1530 Standard First Aid

**Learning Outcomes:**

- Demonstrate knowledge of recognizing situations requiring emergency action.
- Demonstrate knowledge of making appropriate decisions concerning first aid.

**Duration:** 14 Hours

**Pre-Requisite(s):** None

**Practical Requirements:**

1. Complete a **St. John Ambulance or Canadian Red Cross** Standard First Aid Certificate course.

## AB1610 Safety

### Learning Outcomes:

- Demonstrate knowledge of types of safety equipment.
- Demonstrate knowledge of the applications and procedures for use of safety equipment.
- Demonstrate knowledge of safe work practices.
- Demonstrate knowledge of regulations pertaining to safety.

**Duration:** 12 Hours

**Pre-Requisite(s):** None

### Objectives and Content:

1. Identify types of personal protective equipment (PPE) and describe their applications.
  - i. clothing
  - ii. equipment
2. Describe the procedures used to care for and maintain personal protective equipment.
3. Identify workplace hazards and describe safe work practices.
  - i. personal
  - ii. workplace
    - ventilation/fumes
    - electrical/grounding
    - fire
    - chemical/gas
  - iii. environmental
    - discharge/spills
4. Identify and describe workplace safety and health regulations.
  - i. federal
  - ii. provincial/territorial
  - iii. municipal (awareness of)
5. Identify PPE and describe safe work practices for hybrid/alternate-fuel vehicles.



**Practical Requirements:**

1. Conduct a safety inspection of the shop; including fire exits, identifying location and expiry dates of fire extinguishers, MSDS sheets, eye wash stations.
2. Demonstrate proper care of personal protective equipment.
3. Demonstrate knowledge of signage used in the shop.

## AB1600 Trade Related Documents

### Learning Outcomes:

- Demonstrate knowledge of trade documents.
- Demonstrate knowledge of preparing and interpreting trade documents.
- Demonstrate knowledge of ordering and organizing parts and materials.

**Duration:** 12 Hours

**Pre-Requisite(s):** None

### Objectives and Content:

1. Identify sources of related information.
2. Identify and interpret information found on the vehicle.
  - i. VIN
  - ii. paint code
  - iii. production date
  - iv. make and model
3. Identify types of documents and describe the procedures used to interpret them.
  - i. manufacturers' specifications
  - ii. codes and standards
  - iii. equipment maintenance schedules
  - iv. equipment maintenance records
  - v. manuals and bulletins
  - vi. work orders
4. Identify types of written reporting and describe their purpose and applications.
  - i. time and material records
  - ii. apprentice training logs
  - iii. estimates
5. Describe procedures for organizing/storing parts and materials.

### Practical Requirements:

1. Retrieve vehicle identification number and all other necessary information as specified by the Instructor for a specific job.

## AB1620 Tools and Equipment

### Learning Outcomes:

- Demonstrate knowledge of tools and equipment, their applications, maintenance and procedures for use.

**Duration:** 45 Hours

**Pre-Requisite(s):** AB1610

### Objectives and Content:

1. Identify types of hand tools and describe their applications and procedures for use.
2. Identify types of basic measuring equipment and describe their applications and procedures for use.
  - i. basic
  - ii. trade specific
3. Identify types of specialized measuring equipment and describe their applications.
4. Identify types of testing/diagnostic equipment and describe their applications.
5. Identify types of power tools and describe their applications and procedures for use.
  - i. electric
  - ii. pneumatic
  - iii. hydraulic
6. Identify types of shop equipment and describe their applications.
  - i. cleaning
  - ii. lifting
7. Identify types of welding and cutting equipment and describe their applications.
  - i. electric
  - ii. gas

8. Identify types of straightening equipment and describe their applications.
9. Identify types of refinishing and detailing tools and equipment and describe their applications.
10. Identify and describe care and maintenance procedures relating to tools and equipment.

**Practical Requirements:**

1. Demonstrate the use of various hand tools.
2. Demonstrate the use of various measuring equipment.
3. Demonstrate the use of various testing/diagnostic equipment.
4. Demonstrate the use of various power tools.
  - i. electric
  - ii. pneumatic
  - iii. hydraulic
5. Demonstrate the use of shop equipment used for cleaning and lifting.
6. Demonstrate care and maintenance of tools and equipment.

## AB1630 Fasteners and Adhesives

### **Learning Outcomes:**

- Demonstrate knowledge of fasteners and adhesives, their applications and safety considerations.

**Duration:** 12 Hours

**Pre-Requisite(s):** AB1610, AB1620

### **Objectives and Content:**

1. Define terminology associated with fasteners and adhesives.
2. Identify and describe safety considerations and procedures relating to fasteners and adhesives.
  - i. personal
  - ii. vehicle
3. Identify types of fasteners and describe their applications.
4. Describe the procedures to remove and install fasteners.
5. Identify types of adhesives used in fastening applications and describe their characteristics.
6. Identify the considerations when applying and removing adhesives.

### **Practical Requirements:**

None.

## AB1641 Vehicle Construction

### **Learning Outcomes:**

- Demonstrate knowledge of vehicle construction.
- Demonstrate knowledge of vehicle components.

**Course Duration:** 16 Hours

**Pre-Requisite(s):** AB1610

### **Objectives and Content:**

1. Define terminology associated with vehicle construction.
2. Identify types of vehicle construction and describe their characteristics.
  - i. conventional frames
  - ii. unitized bodies
  - iii. space frames
3. Identify body sections and describe their components.
4. Identify and describe structural and non-structural components.
  - i. hinges and panel alignment
  - ii. latches and striker plates
5. Identify and describe the types of materials used in vehicle construction.

### **Practical Requirements:**

None.

## AB1651 Pre/Post-Repair Vehicle Inspection

### **Learning Outcomes:**

- Demonstrate knowledge to perform a visual inspection.
- Demonstrate knowledge of vehicle component operation.

**Duration:** 12 Hours

**Pre-Requisite(s):** None

### **Objectives and Content:**

1. Define terminology associated with pre-repair and post-repair vehicle inspection.
2. Identify hazards and describe safe work practices pertaining to pre-repair and post-repair vehicle inspection.
3. Identify and describe the procedures used to perform a visual inspection of the vehicle before and after repairs.
4. Identify and record any damage on the vehicle that is unrelated to the required repair.
5. Identify and record associated damage in the repair area.
6. Identify vehicle components requiring operational checks.
7. Describe the procedures used to perform vehicle component operational checks.
8. Identify the purpose and procedures for conducting a vehicle road test.

### **Practical Requirements:**

1. Complete a pre and post-repair vehicle inspection checklist.

## AB1660 Metallurgy

### Learning Outcomes:

- Demonstrate knowledge of various metals and their characteristics.
- Demonstrate knowledge of metallurgic principles and their applications to control, expansion, contraction and distortion.

**Duration:** 30 Hours

**Pre-Requisite(s):** AB1641

### Objectives and Content:

1. Define and explain terms associated with metallurgy.
2. Identify hazards and describe safe work practices pertaining to working metals.
3. Identify types of metals and describe their characteristics.
4. Identify and describe procedures associated with working metals.
  - i. forming
  - ii. shearing
  - iii. punching
  - iv. drilling
  - v. cutting
  - vi. welding
  - vii. heating
  - viii. shrinking
5. Describe the effects metal working has on metallurgic properties.
  - i. stress
  - ii. contraction
  - iii. expansion
  - iv. distortion
  - v. work hardening
  - vi. shrinking
6. Describe the procedures to prevent or correct problems that occur when working metals.

### Practical Requirements:

1. Measure, cut, and form panels.



## **AB1671 Cutting and Heating**

### **Learning Outcomes:**

- Demonstrate knowledge of cutting and heating equipment, their applications, maintenance and procedures for use.

**Duration:** 30 Hours

**Pre-Requisite(s):** AB1620

### **Objectives and Content:**

1. Define terminology associated with cutting and heating.
2. Identify and describe cutting and heating equipment and components.
  - i. oxy-fuel
  - ii. plasma arc
3. Identify the applications for oxy-fuel cutting and heating.
4. Identify the application for plasma arc cutting and heating.
5. Describe safety considerations when using cutting and heating equipment.
  - i. personal
  - ii. shop/facility
  - iii. equipment
  - iv. vehicle
6. Describe the procedures to set-up, maintain, and shut-down oxy-fuel equipment.
7. Describe the procedures to set-up, maintain, and shut-down plasma arc cutting equipment.
8. Describe the procedures used to cut with oxy-fuel equipment.
9. Describe the procedures used to cut with plasma arc cutting equipment.

10. Describe the procedures used to heat with oxy-fuel equipment.

**Practical Requirements:**

1. Set-up oxy-fuel equipment.
2. Perform heating using oxy-fuel equipment.
3. Cut mild steel using oxy-fuel equipment.
4. Use plasma arc equipment to cut metal.

## AB1680 Gas Metal Arc Welding – GMAW (MIG)

### Learning Outcomes:

- Demonstrate knowledge of gas metal arc welding equipment, its applications, maintenance and procedures for use.
- Demonstrate knowledge of weld defects, their causes and the procedures to prevent and correct them.

**Duration:** 45 Hours

**Pre-requisite(s):** AB1620, AB1671

### Objectives and Content:

1. Define and explain terminology associated with gas metal arc welding.
2. Describe gas metal arc welding and its applications.
3. Identify safety precautions relating to gas metal arc welding.
  - i. personal
  - ii. equipment
  - iii. vehicle
  - iv. shop/facility
4. Identify and describe gas metal arc welding equipment and accessories.
5. Describe the procedures to set-up, operate and shut-down gas metal arc welding equipment.
6. Describe the procedures used to maintain and troubleshoot gas metal arc welding equipment.
7. Identify the types of welds performed using gas metal arc welding equipment.
  - i. plug
  - ii. continuous fillet

- iii. stitch
  - iv. tack
8. Describe the procedures used to weld various substrates using the gas metal arc welding process.
- i. steel
  - ii. aluminum
9. Describe the weld defects, their causes and the procedure to prevent and
- i. correct them

**Practical Requirements:**

- 1. Disassemble and reassemble GMAW welding system.
- 2. Fillet weld flat (GMAW): “t” joint and lap joint in steel and aluminum.
- 3. Fillet weld horizontal (GMAW): “t” joint and lap joint in steel and aluminum.
- 4. Butt weld flat (GMAW): square butt joint and single vee butt joint in steel and aluminum.

## AB1690 Resistance Spot Welding (RSW)

### Learning Outcomes:

- Demonstrate knowledge of resistance spot welding and its applications.
- Demonstrate knowledge of resistance spot welding procedures.

**Duration:** 15 Hours

**Pre-requisite(s):** AB1620, AB1671

### Objectives and Content:

1. Define terminology associated with resistance spot welding (RSW) and squeeze type resistance spot welding (STRSW)
2. Describe Resistance Spot Welding (RSW) and Squeeze Type Resistance Spot Welding (STRSW) and their applications.
3. Identify safety precautions relating to resistance spot welding and squeeze type resistance spot welding.
  - i. personal
  - ii. equipment
  - iii. vehicle
  - iv. shop/facility

### Practical Requirements:

1. Perform welds using STRSW equipment.

## AB1701 Metal Working 1 (Mild Steel)

### Learning Outcomes:

- Demonstrate knowledge of metal working procedures for sheet metal repair.

**Duration:** 55 Hours

**Pre-Requisite(s):** AB1660

### Objectives and Content:

1. Define terminology associated with working with mild steel sheet metal.
2. Identify hazards and describe safe work practices pertaining to working mild steel sheet metal.
  - i. personal
  - ii. equipment
  - iii. vehicle
  - iv. shop/facility
3. Identify the types of automotive sheet metal.
  - i. steel
  - ii. aluminum
4. Identify and describe types of damage to mild steel sheet metal.
  - i. direct
  - ii. indirect
5. Identify considerations when performing metal work on mild steel sheet metal.
  - i. tool selection
  - ii. repair sequence
  - iii. protection of adjacent panels
  - iv. panel preparation
  - v. corrosion protection

6. Identify the types of panels and their associated repair procedures.
  - i. accessible
    - hammer and dolly
    - shrinking (hot or cold)
  - ii. limited access
    - prybar
    - pick
    - dent puller
    - uni-spotter
7. Describe the methods used to detect surface irregularities.
8. Describe the procedures used to rough out and align damaged mild steel sheet metal.
9. Describe the procedures used to prepare mild steel sheet metal for finishing.

**Practical Requirements:**

1. Retrieve information on different types of metals used, where they are located on a vehicle and identify any special procedures to be followed.
2. Unlock and shape metal to contour.
3. Shrink metal.
4. Pick and file metal.

## AB1711 Body Fillers and Abrasives

### Learning Outcomes:

- Demonstrate knowledge of abrasives, their applications, safety considerations and procedures for use.
- Demonstrates knowledge of types of body fillers, their applications, safety considerations and procedures for use.

**Duration:** 40 Hours

**Pre-Requisite(s):** AB1701

### Objectives and Content:

1. Define terminology associated with body fillers and abrasives.
2. Identify the types of abrasives and describe their characteristics and applications.
3. Describe the procedures and techniques for using abrasives.
4. Identify the types of body fillers and describe their characteristics and applications.
5. Identify safety considerations when working with body fillers and abrasives.
6. Describe the procedures to apply body fillers.
  - i. tools
  - ii. surface preparation
  - iii. mixing
  - iv. application techniques
7. Describe the procedures for shaping and finishing body fillers.
  - i. grit selection
  - ii. tool selection
  - iii. sanding techniques



- iv. detect surface irregularities
  - visual
  - guide coat
  - tactile (touch)

**Practical Requirements:**

1. Demonstrate techniques for using abrasives.
2. Demonstrate body filler application.
3. Demonstrate the procedures for shaping and finishing body fillers.

## AB1721 Corrosion Protection

### Learning Outcomes:

- Demonstrate understanding of corrosion and its causes.
- Demonstrate knowledge of the effects of corrosion on metal.
- Demonstrate knowledge of types of corrosion protection, their characteristics and application procedures.

**Duration:** 40 Hours

**Pre-Requisite(s):** AB1701

### Objectives and Content:

1. Define terminology associated with corrosion.
2. Interpret documentation pertaining to corrosion protection.
  - i. OEM specifications
3. Identify hazards and describe safe work practices pertaining to corrosion and corrosion protection.
4. Identify the types of corrosion and describe their causes.
  - i. oxidation
  - ii. galvanic action
5. Identify environmental and atmospheric conditions that influence the rate of corrosion.
6. Identify and describe the types of corrosion protection.
  - i. OEM application
  - ii. undercoats and topcoats
  - iii. anti-corrosion compounds
7. Describe the procedures used to inspect for corrosion related damage.

8. Identify corrosion protection materials used during repair procedures.
  - i. undercoats (primers)
  - ii. seam sealers
  - iii. anti-corrosion compounds
9. Identify the methods and tools used to restore corrosion protection.
10. Describe the procedures to restore corrosion protection to Original Equipment Manufacturer (OEM) specifications.
  - i. documentation
11. Describe the procedures to restore corrosion protection to electrical components.

**Practical Requirements:**

1. Use various types of corrosion protection.
2. Inspect for corrosion related damage.
3. Demonstrate the procedure used to restore corrosion protection to original equipment manufacturers specifications.
4. Demonstrate the procedure used to restore corrosion protection to electrical components.

## AB1732 Surface Preparation (Cleaning, Stripping and Masking)

### Learning Outcomes:

- Demonstrate knowledge of surface cleaning procedures.
- Demonstrate knowledge of surface preparation using abrasives.
- Demonstrate knowledge of stripping equipment and products, their applications, safety precautions and procedures for use.
- Demonstrate knowledge of masking techniques.

**Duration:** 85 Hours

**Pre-Requisite(s):** AB1721

### Objectives and Content:

1. Define terminology associated with surface preparation.
2. Identify hazards and describe safe work practices for surface preparation.
  - i. personal
  - ii. shop/facility
  - iii. equipment
  - iv. environmental
3. Identify products used to clean surfaces, their applications and procedures for use.
4. Identify substrate types and describe the procedures and considerations for evaluating their condition.
5. Identify topcoats and undercoats and describe the procedures and considerations for evaluating their condition.
6. Identify preparation procedures for non-metal panel substrates.
  - i. sanding
  - ii. adhesion promoters
  - iii. fillers
  - iv. mould release agents

7. Identify the methods used to strip topcoats and undercoats, their applications and safety or environmental considerations.
  - i. sanding
  - ii. chemical strippers
  - iii. media blasting
  - iv. mechanical
8. Describe the procedures used to strip paint.
9. Describe the procedures used to prepare surfaces using abrasives.
10. Identify the materials used in masking.
11. Describe the procedures and techniques used to mask surfaces.
12. Describe the procedures and techniques to remove masking from surfaces.

**Practical Requirements:**

1. Mark off areas using masking technique.
2. Strip paint using chemicals and blasting equipment.
3. Remove grease and dirt from surfaces to be painted.
4. Prepare paint booth (clean and drain air line system).
5. Sand surfaces using hand and power techniques.

## AB1750 Stationary Glass

### Learning Outcomes:

- Demonstrate knowledge of the types of stationary glass, its characteristics and importance to vehicle structure.
- Demonstrate knowledge of the procedures to replace stationary glass to industry standards.

**Duration:** 30 Hours

**Pre-Requisite(s):** AB1760

### Objectives and Content:

1. Define terminology associated with stationary glass.
2. Identify hazards and describe safe work practices pertaining to stationary glass.
3. Identify the types of stationary glass and describe their characteristics.
4. Describe stationary glass and its importance to the vehicle structure/integrity.
5. Describe the procedures to determine if stationary glass can be repaired or if replacement is necessary.
6. Identify the fastening methods for stationary glass and describe the associated components.
  - i. mechanical
  - ii. gasket mounted
  - iii. bonded
7. Identify components and accessories associated with stationary glass.
8. Identify tools and equipment used in stationary glass replacement and their procedures for use.

9. Describe materials used for stationary glass replacement, their characteristics and procedures for use.
10. Describe the procedures and precautions for removal and installation of stationary glass and its related components.
11. Describe the procedures used to detect and repair leaks around stationary glass.

**Practical Requirements:**

1. Demonstrate fastening methods for stationary glass.
2. Demonstrate methods to check, detect and repair leaks around stationary glass.

## AB1760 Moveable Glass and Hardware

### Learning Outcomes:

- Demonstrate knowledge of types of moveable glass and their characteristics.
- Demonstrate knowledge of hardware and attachments associated with moveable glass.
- Demonstrate knowledge of procedures to replace moveable glass and repair or replace its associated hardware and attachments.

**Duration:** 30 Hours

**Pre-Requisite(s):** AB1790

### Objectives and Content:

1. Define terminology associated with moveable glass and hardware.
2. Identify hazards and describe safe work practices pertaining to moveable glass and hardware.
3. Identify tools and equipment relating to moveable glass and describe their applications and procedures for use.
4. Identify the types of moveable glass and describe their characteristics.
5. Describe moveable glass related hardware.
  - i. motors
  - ii. regulators
  - iii. channels
6. Identify the fastening methods for moveable glass and describe the associated components.
  - i. mechanical
  - ii. pressure
  - iii. bonded



7. Describe the procedures and considerations for inspecting moveable glass and its associated hardware.
8. Describe the procedures used to remove and install moveable glass.
9. Describe the procedures used to detect and repair leaks.
10. Describe the procedures used to service and adjust moveable glass.

**Practical Requirements:**

1. Replace fixed glass (rubber mounted).
2. Replace fixed glass (adhesive mounted).
3. Install moveable glass.
4. Service and adjust moveable glass.
5. Perform checks for wind noise and water leaks.

## AB1820 Primers, Surfacers and Sealers

### Learning Outcomes:

- Demonstrate knowledge of primers, surfacers and sealers, their applications, and procedures for use.
- Demonstrate knowledge of primer, surfacer and sealer materials, their characteristics and mixing procedures.
- Demonstrate knowledge of equipment used in applying primers, surfacers and sealers, their set-up, maintenance and procedures for use.

**Duration:** 40 Hours

**Pre-Requisite(s):** AB1721

### Objectives and Content:

1. Define terminology associated with primers, surfacers and sealers.
2. Identify hazards and describe safe work practices pertaining to primers, surfacers and sealers.
  - i. personal
  - ii. shop/facility
  - iii. environment
3. Interpret codes and regulations pertaining to the use of primers, surfacers and sealers.
4. Identify types of primers, surfacers and sealers, and describe their characteristics and applications.
5. Identify tools and equipment relating to primers, surfacers and sealers and describe their applications and procedures for use.
6. Describe the procedures used to set-up, adjust, care for and maintain equipment used in applying primers, surfacers and sealers.

7. Describe the procedures used to prepare substrate prior to applying primers, surfacers and sealers.
8. Describe the procedures used for mixing primers, surfacers and sealers.
9. Identify primer, surfacer and sealer application techniques.
10. Describe the procedures used to apply primers, surfacers and sealers.
11. Identify primer, surfacer and sealer defects and describe their causes and procedures used to prevent or correct them.
12. Describe the procedures for the use of ultraviolet primers in a production based industry.
13. Describe the procedures used to prepare primers, surfacers and sealers for topcoat.

**Practical Requirements:**

1. Set-up, adjust, and maintain equipment used in applying primers, surfacers and sealers.
2. Demonstrate the procedures used to prepare substrate prior to applying primers, surfacers and sealers.
3. Demonstrate the procedures for mixing primers, surfacers and sealers.
4. Demonstrate techniques and procedures used for applying primers, surfacers and sealers.
5. Demonstrate procedures to prevent and correct primer, surfacer and sealer defects.
6. Demonstrate how to prepare primers, surfacers and sealers for topcoat.
7. Demonstrate the application and curing procedures used for ultraviolet primers.

## AB1801 Refinishing 1

### Learning Outcomes:

- Demonstrate knowledge of refinishing materials and their characteristics.
- Demonstrate knowledge of refinishing equipment, its applications, maintenance and procedures for use.

**Duration:** 75 Hours

**Pre-Requisite(s):** AB1820

### Objectives and Content:

1. Define terminology associated with refinishing.
2. Describe safety considerations relating to refinishing.
  - i. personal
  - ii. shop/facility
  - iii. environment
3. Describe the surface preparation procedures for refinishing.
4. Identify refinishing equipment and its applications.
5. Describe the procedures used to set-up, operate, adjust, and maintain refinishing equipment.
6. Identify types of topcoat finishes and describe their characteristics.
  - i. single-stage
  - ii. multistage
    - solvent
    - water
  - iii. clear

**Practical Requirements:**

1. Prepare surface for refinishing and blending.
2. Set-up, operate, adjust, and maintain refinishing equipment.
3. Apply single-stage finishes.
4. Apply basecoat/clearcoat finishes.

## AB1780 Cleaning and Detailing

### Learning Outcomes:

- Demonstrate knowledge of cleaning and detailing equipment and products.
- Demonstrate knowledge of cleaning and detailing practices and procedures.

**Duration:** 30 Hours

**Pre-Requisite(s):** AB1801

### Objectives and Content:

1. Define terminology associated with cleaning and detailing.
2. Identify hazards and describe safe work practices pertaining to cleaning and detailing
3. Identify equipment used in detailing vehicle exterior.
4. Identify equipment used in detailing vehicle interior.
5. Identify products used in vehicle detailing and their related safety considerations.
6. Describe techniques for correcting topcoat defects.
  - i. polishing
  - ii. buffing
7. Describe the procedures to remove overspray.
8. Describe the procedures used to polish vehicle exterior.
9. Describe the procedures used to clean vehicle interior.
10. Describe the procedures used to wash vehicle exterior.
11. Describe the procedures used to clean un-painted plastic exterior components.

**Practical Requirements:**

1. Perform final clean-up for customer delivery:
  - i. remove overspray
  - ii. wash and polish vehicle exterior
  - iii. clean vehicle interior
  
2. Perform water sanding and buffing techniques.

## AB1790 Upholstery, Trim and Hardware

### **Learning Outcomes:**

- Demonstrate knowledge of types of trim, their applications and characteristics.
- Demonstrate knowledge of procedures to repair and replace upholstery, trim and hardware.
- Demonstrate knowledge of procedures to detect and repair noises and leaks contributed to trim and hardware.

**Course Duration:** 30 Hours

**Pre-Requisite(s):** AB1620

### **Objectives and Content:**

1. Define terminology associated with upholstery, trim and hardware.
2. Identify hazards and describe safe work practices pertaining to upholstery, trim and hardware.
3. Identify and describe exterior trim and hardware.
4. Identify and describe interior upholstery, trim and hardware.
5. Describe fasteners and adhesives used in the installation of upholstery, trim and hardware.
6. Describe the procedures used to repair or replace exterior trim.
7. Describe the procedures used to remove and apply pin stripes and decals.
8. Describe the procedures used to inspect interior upholstery, trim and hardware for collision related damage.
9. Describe the procedures used to repair or replace interior trim.
10. Describe the procedures used to repair or replace upholstery.



11. Describe the procedures used to detect leaks related to interior and exterior trim and hardware.
12. Describe the procedures used to repair leaks related to interior and exterior trim and hardware.
13. Describe the procedures used to locate noises related to interior and exterior trim and hardware.
14. Describe the procedures used to repair noises related to interior and exterior trim and hardware.

### **Practical Requirements:**

1. Remove and re-install exterior trim.
2. Remove and install pin stripes and decals.
3. Inspect interior upholstery, trim and hardware for collision damage.
4. Remove and re-install interior trim.
5. Remove and re-install upholstery.

## AB1811 Batteries

### Learning Outcomes:

- Demonstrate knowledge of batteries, their operation and associated safety considerations.
- Demonstrate knowledge of procedures to test and charge batteries.
- Demonstrate knowledge of procedures to remove and replace batteries.

**Duration:** 10 Hours

**Pre-Requisite(s):** AB1610

### Objectives and Content:

1. Define terminology associated with batteries.
2. Identify the types of batteries and describe their purpose, location, construction, operation and ratings.
  - i. lead acid
  - ii. hybrid/alternate fuel
3. Identify safety precautions relating to batteries.
  - i. PPE
  - ii. Conventional
    - handling
    - storage
    - disposal and recycling
  - iii. hybrid/alternate fuel
4. Describe the procedures used to test batteries.
5. Describe the procedures used to charge batteries.
6. Describe the procedures used to remove and replace batteries.

**Practical Requirements:**

1. Remove and re-install batteries while maintaining memories.
2. Load test an automotive battery.
3. Charge an automotive battery.
  - i. slow charge
  - ii. fast charge

## AB2811 Non-Structural Components

### Learning Outcomes:

- Demonstrate knowledge of non-structural component repair and replacement procedures.
- Demonstrate knowledge of procedures to align and adjust non-structural components.

**Duration:** 60 Hours

**Pre-Requisite(s):** AB1641, AB1660

### Objectives and Content:

1. Define terminology associated with non-structural components.
2. Identify hazards and describe safe work practices pertaining to repairing and replacing non-structural components.
3. Identify and describe non-structural components.
4. Identify and describe safety considerations when repairing or replacing non-structural components.
5. Describe the procedures used to inspect non-structural components.
  - i. corrosion
  - ii. collision
6. Identify and describe tools and equipment used to repair or replace non-structural components.
7. Describe the procedures used to repair non-structural components.
  - i. original equipment manufacturer (OEM) recommendations
  - ii. industry accepted standards
8. Describe the procedures used to remove and re-install non-structural components.

9. Describe the procedures used to replace non-structural components.
  - i. full replacement
  - ii. sectioning
10. Describe the procedures used to adjust and align non-structural components.
11. Describe the procedures and techniques used to protect electrical and electronic systems and components during repair.
  - i. hybrid/alternate fuel vehicles
  - ii. conventional fuel vehicles

**Practical Requirements:**

1. Inspect non-structural components for:
  - i. corrosion
  - ii. collision
2. Use tools and equipment to repair and replace non-structural components.
3. Repair non-structural components.
4. Remove and re-install non-structural components.
5. Adjust and align non-structural components such as doors, hinges, etc.

## **OT1220 Workplace Exposure**

### **Learning Outcomes:**

- Demonstrate knowledge of theory and practical applications of trade skills, safe work practices, appropriate workplace behaviour, and time management through exposure to the trade in an authentic work environment.

**NOTE:** The pre-apprentice must be supervised at the workplace. Supervision staff must be appropriately qualified to undertake that role – preferably a certified Journey person for the trade.

**Duration:** 60 Hours

**Pre-Requisite(s):** None

## **AM1000 Introduction to Essential Skills**

### **Learning Outcomes:**

- Demonstrate knowledge of the nine nationally recognized essential skills.
- Demonstrate knowledge of the essential skills levels of complexity.
- Demonstrate knowledge of the essential skills required for the learners chosen trade.
- Demonstrate an awareness of essential skills assessments.

**Duration:** 9 Hours

**Pre-Requisite(s):** None

### **Objectives and Content:**

1. Identify and describe the essential skills recognized by the Government of Canada through the Office of Literacy and Essential Skills (OLES).
  - i. reading
  - ii. document use
  - iii. numeracy
  - iv. writing
  - v. oral communication
  - vi. working with others
  - vii. thinking
  - viii. computer use
  - ix. continuous learning
2. Describe the Levels of Complexity measurement assigned to essential skills.
3. Identify the essential skills, along with their complexity level, identified as necessary for the learner's trade.
  - i. RSOS / NOA content<sup>1</sup>
  - ii. OLES Essential Skills Profiles<sup>2</sup>
  - iii. OLES tools and support for apprentices and tradespersons<sup>3</sup>
4. Describe the nature and purpose of essential skills assessment.
  - i. self-assessment & formal assessment tools
  - ii. indicators of deficiencies
  - iii. suggestions for improvement
5. Describe the benefits of essential skills improvement.
  - i. confidence at work
  - ii. employability
  - iii. success in apprenticeship

- iv. wage & job advancement

**Practical Requirements:**

1. Complete an essential skills self-assessment addressing numeracy, document use and reading. The online **Government of Canada Essential Skills Indicator<sup>4</sup>** and **Essential Skills Self-Assessment for the Trades<sup>5</sup>** are to be used unless the instructor provides a similar assessment tool or tools.
2. Participate in a group discussion about the impact of gaps in essential skills that may be revealed by the self-assessments completed, and the value of improving essential skills.

Students are graded complete or incomplete on this practical work, no grade is permitted for self-assessment performance. However, completion of the practical requirements is mandatory for completion of this unit.

**Resources:**

All footnotes are in the companion document, Resources for Introduction to Essential Skills, which is available online from Apprenticeship and Trades Certification.



## **AM1101 Math Essentials**

Note: It is recommended that AM1101 be delivered in the first semester of the Pre-employment program.

### **Learning Outcomes:**

- Demonstrate knowledge of essential numeracy skills.
- Demonstrate knowledge of mathematics as a critical element of the trade environment.
- Demonstrate knowledge of mathematical principles in trade problem solving situations.
- Demonstrate the ability to solve simple mathematical word problems.

**Duration:** 42 Hours

**Pre-Requisite(s):** None

### **Objectives and Content:**

Wherever possible, the instructor is expected to use trade specific examples to reinforce the course objectives.

1. Describe whole number operations.
  - i. read, write, count, round off, add, subtract, multiply and divide whole numbers
2. Describe the application of the order of operations in math problems.
3. Describe fraction and mixed number operations.
  - i. read, write, add, subtract, multiply and divide fractions
4. Describe decimal operations.
  - i. read, write, round off, add, subtract, multiply and divide decimals
5. Describe percent/decimal/fraction conversion and comparison.
  - i. convert between fractions, decimals and percents
6. Identify percentage operations.
  - i. read and write percentages
  - ii. calculate base, rates and percentages
7. Identify ratio and proportion operations.
  - i. use a ratio comparing two quantities with the same units

- ii. use a proportion comparing two ratios
8. Describe the use of the imperial measurement system in math problems.
  - i. identify units of measurement
    - length
    - mass
    - area
    - volume
    - capacity
9. Describe the use of the metric measurement system in math problems.
  - i. identify units of measurement
    - length
    - mass
    - area
    - volume
    - capacity
10. Identify angles, lines and geometric shapes.
  - i. use a protractor to measure angles
  - ii. determine whether an angle is right, acute or obtuse
  - iii. identify parallel, perpendicular, horizontal and vertical lines
  - iv. identify types of triangles, quadrilaterals, and 3-dimensional shapes
11. Describe estimation strategies.
  - i. estimate a linear measure using a referent
  - ii. estimate length, area and volume of objects in metric and imperial systems
12. Describe problem solving that involves linear measurement using instruments such as rulers or tape measures, in the metric and imperial systems.

**Practical Requirements:**

1. To emphasize or further develop specific knowledge objectives, students will be required to complete practical demonstrations which confirm proper application of mathematical theory to job skills.

## **AM1241 Auto Body and Collision Math Fundamentals**

### **Learning Outcomes:**

- Demonstrate knowledge of mathematical concepts in the performance of trade practices.
- Demonstrate knowledge of mathematics as a critical element of the trade environment.
- Solve mathematical word problems
- Demonstration knowledge of mathematical principles for the purposes of problem solving, job and materials estimation, measurement, calculation, system conversion, diagram interpretation and scale conversions, formulae calculations, and geometric applications.

**Duration:** 42 Hours

**Pre-Requisite(s):** AM1101

### **Objectives and Content:**

The instructor is required to use trade specific examples to reinforce the course objectives.

1. Describe percent/decimal/fraction conversions and comparisons in trade specific situations.
2. Describe ratios and proportions as they relate to trade specific problems.
3. Describe the use of the Imperial and Metric measurement systems in trade specific applications.
4. Describe Imperial and Metric conversions in trade specific situations.
  - i. convert between imperial and metric measurements
  - ii. convert to another unit within the same measurement system
5. Describe how to manipulate formulas using cross multiplication, dividing throughout, elimination, and substitution to solve trade specific problems.
  - i. right angle triangles
  - ii. area
  - iii. volume
  - iv. perimeter
  - v. density
6. Identify calculations involving geometry that are relevant to the trade.
  - i. angle calculations

- ii. circle calculations
7. Identify math processes used to complete administrative trade tasks.
- i. material estimation
  - ii. material costing
  - iii. time & labour estimates
  - iv. taxes & surcharges
  - v. markup & projecting revenue

**Practical Requirements:**

1. To emphasize or further develop specific knowledge objectives, students will be asked to complete practical demonstrations which confirm proper application of mathematical theory to job skills.

Note: This course is **non-transferable** to other trades programs, and **not eligible for prior learning assessment**. Students completing training in this trade program are required to complete this math course. Apprentice transfers under Provincial / Territorial Mobility agreements may be exempt from this requirement.

## **CM2161 Communication Essentials**

### **Learning Outcomes:**

- Demonstrate knowledge of the importance of well-developed writing and oral communication skills in the workplace.
- Demonstrate knowledge of the principles of effective workplace writing.
- Demonstrate knowledge of the purpose of various types of workplace documentation and workplace meetings.
- Demonstrate knowledge of the importance of effective interpersonal skills in the workplace.
- Demonstrate knowledge of effective job search techniques

**Duration:** 36 Hours

**Pre-Requisite(s):** None

### **Objectives and Content:**

Wherever possible, the instructor is expected to use trade specific examples to reinforce the course objectives.

1. Define communications terminology used in the trade.
2. Identify the principles of effective workplace writing.
  - i. grammar, punctuation, mechanics
  - ii. sentence and paragraph construction
  - iii. tone, language, and word choice
  - iv. the writing process
    - planning
    - writing
    - editing/revising
3. Identify sources of information used to communicate in the workplace.
  - i. regulations
  - ii. codes
  - iii. OH&S requirements
  - iv. prints, drawings and specifications
  - v. company and client documentation
4. Identify types and purposes of informal workplace documents.
  - i. reports
    - incident
    - process
    - progress

- ii. common trade specific forms
  - iii. primary and secondary methods of information gathering
  - iv. accuracy and completeness in reports and forms
5. Demonstrate an understanding of interpersonal communications in the workplace.
- i. recognize group dynamics
  - ii. contribute information and expertise
  - iii. individual learning styles
    - audible
    - visual
    - experiential
    - theoretical
  - iv. recognize respectful and open communication
  - v. accept and provide feedback
  - vi. interpret non-verbal communication cues
    - body language
    - signals
6. Demonstrate an understanding of effective oral communication skills.
- i. listening
    - receiving, understanding, remembering, reflecting, evaluating, paraphrasing, and responding
  - ii. speaking
    - using clear and proper words
    - tone, style, and vocabulary
    - brevity
  - iii. common workplace oral communication situations
    - introducing self and others
    - telephone conversations
    - tool box/safety talks
    - face-to-face conversations
    - communicating with co-workers, supervisors, clients, and other trades people
7. Identify common practices related to workplace meetings.
- i. meeting formats
  - ii. meeting preparation
  - iii. agendas and minutes
  - iv. roles, responsibilities, and etiquette of meeting participants
8. Identify acceptable workplace use of communication technologies
- i. cell / smart phone etiquette
  - ii. voice mail
  - iii. e-mail
  - iv. texting / messaging through social media

- v. teleconferencing / videoconferencing for meetings and interviews
  - vi. social networking
  - vii. other emerging technologies
9. Demonstrate an understanding of effective job search techniques
- i. employment trends, opportunities, and sources of employment
  - ii. job ads and the importance of fitting qualifications to job requirements
  - iii. resumes
    - characteristics of effective resumes
    - types of resumes
    - principles of resume formatting
  - iv. effective cover letters
  - v. job interview process
    - pre-interview preparation
    - interview conduct
    - post-interview follow up

**Practical Requirements:**

1. Write a well-developed, coherent, unified paragraph.
2. Complete a trade-related form.
3. Prepare an agenda for a toolbox safety talk.
4. Participate in a simulated oral workplace communication situation.
5. Prepare a resume.

## **SD1761 Workplace Essentials**

Note: It is recommended that SD1761 be delivered in the second half of pre-employment training.

### **Learning Outcomes:**

- Demonstrate a knowledge of workplace requirements in the areas of personal responsibility, unions, workers compensation, workers' rights, and human rights.
- Demonstrate a knowledge of quality customer service.

**Duration:** 24 Hours

**Pre-Requisite(s):** None

### **Objectives and Content:**

Wherever possible, the instructor is expected to use trade specific examples to reinforce the course objectives.

1. Identify personal responsibilities and attitudes that contribute to on-the-job success.
  - i. asking questions
  - ii. working safely
  - iii. accepting constructive feedback
  - iv. time management & punctuality
  - v. respect for authority
  - vi. stewardship of materials, tools and properties
2. Define unions and identify their role in the workplace.
  - i. purpose of unions
  - ii. common union structure
  - iii. unions in this trade
3. Demonstrate an understanding of the Worker's Compensation process.
  - i. aims, objectives, and benefits of the Workplace Health, Safety and Compensation Commission
  - ii. role of the workers advisor
  - iii. internal review process
4. Demonstrate an understanding of worker's rights.
  - i. labour standards
  - ii. regulations, including:
    - hours of work & overtime
    - termination of employment



- minimum wages & allowable deductions
  - statutory holidays, vacation time, and vacation pay
5. Demonstrate an understanding of human rights issues.
- i. awareness of the Human Rights Code and the role of the Human Rights Commission
  - ii. categories of discrimination and strategies for prevention
    - direct
    - systemic
    - adverse effect
  - iii. types of discrimination
    - race
    - ethnic origin
    - colour
    - religion
    - age
    - gender identify
    - sexual orientation
    - marital status
    - family status
    - disability
    - criminal conviction that has been pardoned
  - iv. conduct that constitutes harassment and discrimination
    - objectionable conduct
    - comments or displays made either on a one-time or continuous basis that demeans, belittles, or causes personal humiliation or embarrassment to the recipient
  - v. the value of diversity in the workplace
    - culture
    - gender identify
    - sexual orientation
6. Demonstrate an understanding of quality customer service.
- i. importance of quality service
  - ii. barriers to quality service
    - physical and physiological
    - cultural
    - technological
  - iii. customer needs & common methods for meeting them
  - iv. characteristics & importance of a positive attitude
  - v. interactions with challenging customers
  - vi. addressing complaints and resolve conflict

**Practical Requirements:**

None

## **MC1062 Computer Essentials**

### **Course Outcomes:**

- Demonstrate knowledge of desktop/laptop and mobile computers and their operation.
- Demonstrate knowledge of word processing and spreadsheet software, internet browsers and their applications.
- Demonstrate knowledge of e-mail applications and procedures.
- Demonstrate an awareness of security issues related to computers.
- Demonstrate an awareness of online learning using computers.

**Duration:** 15 Hours

**Pre-Requisite(s):** None

### **Objectives and Content:**

When possible, the instructor is expected to use trade specific examples to reinforce the course objectives.

1. Identify computer types used in the workplace, and the characteristics of each.
  - i. desktop/laptop computers
  - ii. tablets
  - iii. smartphones
2. Identify common desktop and mobile operating systems.
  - i. Windows
  - ii. Mac OS
  - iii. iOS
  - iv. Android
3. Describe the use of Windows operating system software.
  - i. start and end a program
  - ii. use the help function
  - iii. use the find function
  - iv. maximize and minimize a window
  - v. open and scroll through multiple windows
  - vi. use the task bar
  - vii. adjust desktop settings such as screen savers, screen resolution, and backgrounds
  - viii. shut down a computer
4. Identify the skills necessary to perform file management commands.
  - i. create folders

- ii. copy files and folders
  - iii. move files and folders
  - iv. rename files and folders
  - v. delete files and folders
5. Describe the use of word processing software to create documents.
- i. enter & edit text
  - ii. indent and tab text
  - iii. change text attributes
    - bold
    - underline
    - font
  - iv. change layout format
    - margins
    - alignment
    - line spacing
  - v. spell check and proofread
  - vi. save, close & reopen a document
  - vii. print document
6. Describe the use of spreadsheet software to create documents.
- i. enter data in cells
  - ii. format data in cells
  - iii. create formulas to add, subtract, multiply and divide
  - iv. save, close & reopen a spreadsheet
  - v. print spreadsheet
7. Describe the use of the internet in the workplace.
- i. web browsers
  - ii. search engines
  - iii. security issues
  - iv. personal responsibility for internet use at work
8. Describe the role of e-mail.
- i. e-mail etiquette
    - grammar and punctuation
    - privacy issues when sharing and forwarding e-mail
    - work appropriate content
    - awareness of employer policies
  - ii. managing e-mail
    - using folders
    - deleting, forwarding, replying
  - iii. adding attachments to e-mail
  - iv. view e-mail attachments
  - v. printing e-mail

9. Describe computer use for online learning.
  - i. online training
  - ii. level exams
  - iii. study guides
  - iv. practice exams

**Practical requirements:**

1. Create, save and print a document using word processing software.
2. Create, save and print a document using spreadsheet software.
3. Send and receive an e-mail with an attachment.

## **AP1102 Introduction to Apprenticeship**

### **Learning Outcomes:**

- Demonstrate knowledge of how to become a registered apprentice.
- Demonstrate knowledge of the steps to complete an apprenticeship program.
- Demonstrate knowledge of various stakeholders in the apprenticeship process.
- Demonstrate knowledge of the Red Seal Program.

**Duration:** 12 Hours

**Pre-Requisite(s):** None

### **Objectives and Content:**

1. Define terminology associated with apprenticeship.
  - i. apprentice
  - ii. registered apprentice
  - iii. trade qualifier
  - iv. journeyperson
  - v. certified journeyperson
  - vi. Certificate of Apprenticeship
  - vii. Certificate of Qualification
  - viii. dual certification
  - ix. compulsory trades
  
2. Explain the roles and responsibilities of those involved in the apprenticeship system in Newfoundland and Labrador.
  - i. registered apprentice
  - ii. training institution
  - iii. employer
  - iv. journeyperson
  - v. mentor
  - vi. Department of Immigration, Population Growth and Skills
    - Industrial Training section
    - Standards and Curriculum section
  - vii. Provincial Trade Advisory Committees (PTAC)
  - viii. Provincial Apprenticeship and Certification Board (PACB)
  
3. Describe the training components of an apprenticeship.
  - i. in-school
    - pre-employment / Level 1
    - advanced levels
  - ii. workplace experience

4. Explain the steps in the registered apprenticeship process.
  - i. meet entrance requirements
    - education
    - employment
    - Recognition of Prior Learning (RPL) - if applicable
  - ii. complete the registration process
    - application
    - required documents
  - iii. complete the Memorandum of Understanding (MOU)
    - contract responsibilities
    - probation period
    - cancellation
  - iv. maintain Record of Occupational Progress (Logbook)
    - sign off skills
    - record hours
    - update Apprenticeship Program Officer (APO) on progress
  - v. class calls
    - hour requirements
    - EI eligibility
    - training schedule
  - vi. level examinations - if applicable
  - vii. progression schedule
    - apprenticeship level
    - wage rates
  - viii. certification examinations
    - Provincial
    - Interprovincial
      - written
      - practical - if applicable
  - ix. certification
    - Certificate of Apprenticeship
    - Certificate of Qualification
    - Provincial journeyman - Blue Seal
    - Interprovincial journeyman - Red Seal endorsement (RSE)
5. Identify the Conditions Governing Apprenticeship.
6. Discuss cancellation of apprenticeship.
  - i. failure to notify of address change
  - ii. extended periods of unemployment
  - iii. lack of contact with an APO for an extended period
  - iv. failure to respond to class calls
  - v. declining of multiple class calls
7. Explain the Interprovincial Standards Red Seal program.
  - i. designated Red Seal trades

- ii. the Red Seal Occupational Standard (RSOS)
  - iii. relationship of RSOS to IP examination
  - iv. national qualification recognition and mobility
8. Identify the current financial incentives available to apprentices.
- i. Federal
  - ii. Provincial
9. Explain the Provincial / Territorial Apprentice Mobility Guidelines.
- i. temporary mobility
  - ii. permanent mobility
10. Describe Atlantic and National Harmonization initiatives.

**Practical Requirements:**

1. Use the Provincial Apprenticeship and Trades Certification website at [www.gov.nl.ca/atcd](http://www.gov.nl.ca/atcd)
- i. locate, download, and complete the Application for Apprenticeship and Memorandum of Understanding (MOU)
  - ii. locate the address of the Industrial Training office closest to this campus
  - iii. locate the training schedule and identify the start date of the next class call for this trade
  - iv. locate and review the learning resources applicable to this trade
    - Study Guide
    - Exam Preparation Guide
    - Plan of Training
2. Use the Plan of Training applicable to this trade.
- i. locate the hours for the trade
    - total in-school
    - total required for certification
  - ii. locate the number of levels
  - iii. locate the courses in each level
  - iv. locate the hours required for progression to a Level II apprentice and the wage percentage of that level



## **C. Conditions Governing Apprenticeship Training**

### **1.0 General**

The following general conditions apply to all apprenticeship training programs approved by the Provincial Apprenticeship and Certification Board (PACB) in accordance with the *Apprenticeship Training and Certification Act (1999)*. If an occupation requires additional conditions, these will be noted in the specific Plan of Training for the occupation. In no case should there be a conflict between these conditions and the additional requirements specified in a certain Plan of Training. All references to Memorandum of Understanding will also apply to Letter of Understanding (LOU) agreements.

### **2.0 Entrance Requirements**

#### **2.1 Entry into the occupation as an apprentice requires:**

Indenturing into the occupation by an employer who agrees to provide the appropriate training and work experiences as outlined in the Plan of Training.

#### **2.2 Notwithstanding the above, each candidate must have successfully completed a high school program or equivalent, and in addition may be required to have completed certain academic subjects as specified in a particular Plan of Training. Mature students, at the discretion of the Director of Apprenticeship and Trades Certification, may be registered. A mature student is defined as one who has reached the age of 19 and who can demonstrate the ability and the interest to complete the requirements for certification.**

#### **2.3 At the discretion of the Director of Apprenticeship and Trades Certification, credit toward the apprenticeship program may be awarded to an apprentice for previous work experience and/or training as validated through prior learning assessment.**

#### **2.4 An Application for Apprenticeship form must be duly completed along with a Memorandum of Understanding as applicable to be indentured into an Apprenticeship. The Memorandum of Understanding must contain signatures of an authorized employer representative, the apprentice and an official representing the Provincial Apprenticeship and Certification Board to be valid.**

#### **2.5 A new Memorandum of Understanding must be completed for each change in an employer during the apprenticeship term.**

### **3.0 Probationary Period**

The probationary period for each Memorandum of Understanding will be six months or 900 employment credit hours. Within that period the memorandum may be terminated by either party upon giving the other party and the PACB one week notice in writing.

#### **4.0 Termination of a Memorandum of Understanding**

After the probationary period referred to in Section 3.0, the Memorandum of Understanding may be terminated by the PACB by mutual consent of the parties involved, or cancelled by the PACB for proper and sufficient cause in the opinion of the PACB, such as that stated in Section 14.

#### **5.0 Apprenticeship Progression Schedule, Wage Rates and Advanced Training Criteria**

## Progression Schedule

Auto Body and Collision Technician - 7200 Hours			
Apprenticeship Level and Wages			
Level	Wage Rate	Requirements for Progression to Next Level	Next Level
1 <sup>st</sup>	60 %	<ul style="list-style-type: none"> <li>▪ Completion of Pre-employment training</li> <li>▪ Registration as an apprentice</li> <li>▪ Minimum 1800 hours of combined relevant work experience and training</li> </ul>	2 <sup>nd</sup> Year
2 <sup>nd</sup>	70%	<ul style="list-style-type: none"> <li>▪ Completion of Level 2 training</li> <li>▪ Pass Level 2 exam</li> <li>▪ Minimum 3600 hours of combined relevant work experience and training</li> </ul>	3 <sup>rd</sup> Year
3 <sup>rd</sup>	80%	<ul style="list-style-type: none"> <li>▪ Completion of Level 3 training</li> <li>▪ Pass Level 3 exam</li> <li>▪ Minimum 5400 hours of combined relevant work experience and training</li> </ul>	4 <sup>th</sup> Year
4 <sup>th</sup>	90%	<ul style="list-style-type: none"> <li>▪ Completion of Level 4 training</li> <li>▪ Pass Level 4 exam</li> <li>▪ Minimum 7200 hours of combined relevant work experience and training</li> <li>▪ Sign-off of all workplace skills in apprentice logbook</li> <li>▪ Pass certification exam</li> </ul>	Journeyman Certification
<p><b>Wage Rates</b></p> <ul style="list-style-type: none"> <li>▪ Rates are percentages of the prevailing journeyman's wage rate in the place of employment of the apprentice.</li> <li>▪ Rates must not be less than the wage rate established by the Labour Standards Act (1990), as now in force or as hereafter amended, or by other order, as amended from time to time replacing the first mentioned order.</li> <li>▪ Rates must not be less than the wage rate established by any collective agreement which may be in force at the apprentice's workplace.</li> <li>▪ Employers are free to pay wage rates above the minimums specified.</li> </ul> <p><b>Level Exams</b></p> <ul style="list-style-type: none"> <li>▪ This program may not currently contain level exams, in which case this requirement will be waived until such time as Level exams are available.</li> </ul>			

Auto Body and Collision Technician - 7200 Hours		
Class Calls (After Apprenticeship Registration)		
Call Level	Requirements for Class Call	Hours awarded for In-School Training
Level II	<ul style="list-style-type: none"> <li>▪ Minimum of 3000 hours of relevant work experience and training</li> </ul>	240
Level III	<ul style="list-style-type: none"> <li>▪ Minimum of 5000 hours of relevant work experience and training</li> </ul>	240
Level IV	<ul style="list-style-type: none"> <li>▪ Minimum of 7000 hours of relevant work experience and training</li> </ul>	240
<p>Class Calls at Minimum Hours</p> <ul style="list-style-type: none"> <li>▪ Class calls may not always occur at the minimum hours indicated. Some variation is permitted to allow for the availability of training resources and apprentices.</li> </ul>		

## **6.0 Tools**

Apprentices shall be required to obtain their own hand tools applicable for the designated occupation of registration or tools as specified by the PACB.

## **7.0 Periodic Examinations and Evaluation**

- 7.1 Every apprentice shall submit to such occupational tests and examinations as the PACB shall direct. If after such occupational tests and examinations the apprentice is found to be making unsatisfactory progress, his/her apprenticeship level and rate of wage shall not be advanced as provided in Section 5 until his/her progress is satisfactory to the Director of Apprenticeship and Trades Certification and his/her date of completion shall be deferred accordingly. Persistent failure to pass required tests shall be a cause for revocation of his/her Memorandum of Understanding.
- 7.2 Upon receipt of reports of accelerated progress of the apprentice, the PACB may shorten the term of apprenticeship and advance the date of completion accordingly.
- 7.3 For each and every course, a formal assessment is required for which 70% is the pass mark. A mark of 70% must be attained in both the theory examination and the practical project assignment, where applicable as documented on an official transcript.
- 7.4 Course credits may be granted through the use of a PACB approved matrix which identifies course equivalencies between designated trades and between current and historical Plans of Training for the same trade.

## **8.0 Granting of Certificates of Apprenticeship**

Upon the successful completion of apprenticeship, the PACB shall issue a Certificate of Apprenticeship.

## **9.0 Hours of Work**

Any hours employed in the performance of duties related to the designated occupation will be credited towards the completion of the term of apprenticeship. Appropriate documentation of these hours must be provided.

## **10.0 Copies of the Registration for Apprenticeship**

The Director of Apprenticeship and Trades Certification shall provide copies of the Registration for Apprenticeship form to all signatories to the document.

## **11.0 Ratio of Apprentices to Journeypersons**

Under normal practice, the ratio of apprentices to journeypersons shall not exceed two apprentices to every one journeyperson employed. Other ratio arrangements would be determined and approved by the PACB.

## **12.0 Relationship to a Collective Bargaining Agreement**

Where applicable in Section 5 of these conditions, Collective Agreements take precedence.

## **13.0 Amendments to a Plan of Apprenticeship Training**

A Plan of Training may be amended at any time by the PACB.

## **14.0 Employment, Re-Employment and Training Requirements**

- 14.1 The Plan of Training requires apprentices to regularly attend their place of employment.
- 14.2 The Plan of Training requires apprentices to attend training for that occupation as prescribed by the PACB.
- 14.3 Failure to comply with Sections 14.1 and/or 14.2 will result in cancellation of the Memorandum of Understanding. Apprentices may have their MOUs reinstated by the PACB but would be subject to a commitment to complete the entire program as outlined in the General Conditions of Apprenticeship. Permanent cancellation in the said occupation is the result of non-compliance.
- 14.4 Cancellation of the Memorandum of Understanding to challenge journeyperson examinations, if unsuccessful, would require an apprentice to serve a time penalty of two (2) years before reinstatement as an apprentice or qualifying to receive a class call to training as a registered Trade Qualifier. Cancellation must be mutually agreed upon by the employer and the apprentice.

- 14.5 An employer shall ensure that each apprentice is under the direct supervision of an approved journeyman supervisor who is located at the same worksite as the apprentice, and that the apprentice is able to communicate with the journeyman with respect to the task, activity or function that is being supervised.
- 14.6 Under the Plan of Training the employer is required to keep each apprentice employed as long as work is available, and if the apprentice is laid off due to lack of work, to give first opportunity to be hired before another is hired.
- 14.7 The employer will permit each apprentice to attend training programs as prescribed by the PACB.
- 14.8 Apprentices who cannot acquire all the workplace skills at their place of employment will have to be evaluated in a simulated work environment at a PACB authorized training institution and have sign-off done by instructors to meet the requirements for certification.

### **15.0 Appeals to Decisions Based on Conditions Governing Apprenticeship Training**

Persons wishing to appeal any decisions based on the above conditions must do so in writing to the Minister of Immigration, Population Growth and Skills within 30 days of the decision.

## **D. Requirements for Red Seal Endorsement**

1. Evidence the required work experiences outlined in this Plan of Training have been obtained. This evidence must be in a format clearly outlining the experiences and must be signed by an appropriate person or persons attesting that these experiences have been obtained to the level required.
2. Successful completion of all required courses in the program.
3. A combination of training from an approved training program and suitable work experience totaling 7200 hours.

### **Or**

A total of 10800 hours of suitable work experience.

4. Completion of a National Red Seal examination, to be set at a place and time determined by the Apprenticeship and Trades Certification Division.



## **E. Roles and Responsibilities of Stakeholders in the Apprenticeship Process**

The apprenticeship process involves a number of stakeholders playing significant roles in the training of apprentices. This section outlines these roles and the responsibilities resulting from them.

### **The Apprentice:**

- completes all required technical training courses as approved by the PACB.
- finds appropriate employment.
- completes all required work experiences in combination with the required hours.
- ensures work experiences are well documented.
- approaches apprenticeship training with an attitude and commitment that fosters the qualities necessary for a successful career as a qualified journeyman.
- obtains the required hand tools as specified by the PACB for each period of training of the apprenticeship program.

### **The Employer:**

- provides high quality work experiences in an environment conducive to learning.
- remunerates apprentices as set out in the Plan of Training or Collective Agreements.
- provides feedback to training institutions, Apprenticeship and Trades Certification Division and apprentices in an effort to establish a process of continuous quality improvement.
- where appropriate, releases apprentices for the purpose of returning to a training institution to complete the necessary technical courses.
- ensures work experiences of the apprentice are documented.
- ensures a certified journeyperson is currently on staff in the same trade area as the apprentice and whose certification is recognized by the NL Department of Immigration, Population Growth and Skills.

### **The Training Institution:**

- provides a high quality learning environment.
- provides the necessary student support services that will enhance an apprentice's ability to be successful.
- participates with other stakeholders in the continual updating of programs.

### **The Apprenticeship and Trades Certification Division:**

- establishes and maintains program advisory committees under the direction of the PACB.
- promotes apprenticeship training as a viable career option to prospective apprentices and other appropriate persons involved, such as career guidance counsellors, teachers, parents, etc.
- establishes and maintains a protocol with training institutions, employers and other appropriate stakeholders to ensure the quality of apprenticeship training programs.
- ensures all apprentices are appropriately registered and records are maintained as required.
- schedules all necessary technical training periods for apprentices to complete requirements for certification.
- administers level, provincial and interprovincial examinations.

### **The Provincial Apprenticeship and Certification Board:**

- sets policies to ensure the provisions of the *Apprenticeship and Certification Act (1999)* are implemented.
- ensures advisory and examination committees are established and maintained.
- accredits institutions to deliver apprenticeship training programs.
- designates occupations for apprenticeship training and/or certification.