
Pre-Employment Plan of Training Carpenter



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

April 2016

PLAN OF TRAINING

Pre-Employment

Carpenter

APRIL 2016



**Government of Newfoundland and Labrador
Department of Advanced Education and Skills
Apprenticeship and Trades Certification Division**

Approved by:

A handwritten signature in blue ink, appearing to read "Dave Hill", written over a horizontal line.

Chairperson, Provincial Apprenticeship and Certification Board

Date: June 23, 2016

Preface

This curriculum standard is aligned with the 2016 Level 1 Atlantic Apprenticeship Curriculum Standard (AACS) and the 2010 edition of the National Occupational Analysis (NOA) for the Carpenter trade. It describes the curriculum content for the Carpenter Pre-employment training program.

Acknowledgements

The Provincial Trade Advisory Committee (PTAC), industry representatives, instructors and apprenticeship staff provided valuable input to the development of this provincial plan of training. Without their dedication to quality apprenticeship training, this document could not have been produced.

We offer you a sincere thank you.

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A. NOA Comparison Chart

A National Occupational Analysis (NOA) comparison chart is located in the Atlantic Apprenticeship Curriculum Standard (AACCS).

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 as documented on an official transcript.

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

Upon completion of a Pre-employment 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 Level 2, 3 and 4 in the Atlantic Apprenticeship Curriculum Standard (AACCS).

Pre-Employment				
Course No.	AACS No.	Course Name	Hours	Pre-Requisite(s)
TS1520	CAR-100	WHMIS	6	None
TS1530		Standard First Aid	14	None
TS1510		Occupational Health & Safety	6	None
HE1620		Powerline Hazards	4	None
LA1100		Confined Space Awareness	6	None
AJ1760		Chain Saw Safety	4	None
LA1110		Fall Protection Awareness	6	None
AJ1111	CAR-105 CAR-115 CAR-125 CAR-145 CAR-150	Carpentry Fundamentals	74	None
AJ1160	CAR-125	Blueprint Reading	45	None
AJ2430	CAR-130	Scaffolding	45	AJ1111 LA1110

Pre-Employment				
Course No.	AACS No.	Course Name	Hours	Pre-Requisite(s)
AJ1121	CAR-110	Rigging	30	AJ1111 LA1110
AJ1201	CAR-135 CAR-140 CAR-215	Layout and Footings	80	AJ1111
AJ1211	CAR-145 CAR-600	Wall Forms	80	AJ1201
CAR-155	CAR-155	Concrete	12	AJ1201 AJ1211
AJ1221	CAR-175 CAR-165	Floor and Wall Framing	90	AJ1111
AJ1410	CAR-115	Interior Fundamentals	60	AJ1221
AJ1501	---	Interior Trim	60	AJ1111
AJ2420	CAR-160	Post and Beam	30	AJ1221 AJ1410
AJ1310	CAR-115	Roof Fundamentals	80	AJ1221
AJ1231	CAR-145	Exterior Finish	60	AJ1111
CAR-225	CAR-225	Deck Layout and Framing	9	AJ1221
AJ1601	---	Stair Fundamentals	60	AJ1111
AJ1170	---	Residential Estimating	30	AJ1211 AJ1231 AJ1310 AJ1410 AJ1501 AJ1601
AM1000	---	Introduction to Essential Skills	9	None
AP1102	CAR-120	Introduction to Apprenticeship	12	None
*AM1101	CAR-125	Math Essentials	42	None
AM1131	CAR-125	Carpenter Math Fundamentals	42	AM1101

Pre-Employment				
Course No.	AACS No.	Course Name	Hours	Pre-Requisite(s)
CM2161	CAR-120	Communication Essentials	36	None
SD1761	CAR-120	Workplace Essentials	24	None
MC1062	CAR-120	Computer Essentials	15	None
Total Pre-Employment Hours			1071	

*A student who can meet the mathematics requirement through an ACUPLACER® test may be exempted from AM1101 - Math Essentials. Please check with your training institution.

Required Work Experience

Pre-Employment

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.

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.

HE1620 Powerline Hazards

Learning Outcomes:

- Demonstrate knowledge of understanding the dangers of working near power lines.
- Demonstrate knowledge of understanding how to prevent injuries and death due to working near powerlines.

Duration: 4 Hours

Pre-Requisite(s): None

Practical Requirements:

1. Complete the Participant's Workbook from WHSCC.

LA1100 Confined Space Awareness

Learning Outcomes:

- Demonstrate knowledge of understanding how to properly prepare to work in confined spaces.

Duration: 6 Hours

Pre-Requisite(s): None

Objectives and Content:

1. Recognize confined space hazards.
 - i. define a confined space
 - ii. identify types of hazards in confined spaces
2. Identify proper controls for confined space entries.
 - i. list steps to protect yourself from confined space hazards
 - ii. define an entry permit
 - iii. list information included on a confined space entry permit
 - iv. explain what action must be taken if a permit expires before work is completed
3. Identify how to prepare for confined space entry.
 - i. state the first step in entry preparation
 - ii. list examples of proper entry preparation
 - iii. list types of personal protective equipment used in confined spaces
4. Determine testing techniques for confined spaces.
 - i. list the necessary steps of air testing
 - ii. state the correct order for testing gases
5. Identify confined space entry procedures.
 - i. identify the attendants responsibilities
 - ii. identify the area where the attendant should be stationed
 - iii. identify the entrants responsibilities

6. Explain confined space rescue techniques.
 - i. list three types of confined space rescues
 - ii. explain non-entry rescue
 - iii. list the requirements of an on-site rescue team

Practical Requirements:

None.

AJ1760 Chain Saw Safety

Learning Outcomes:

- Demonstrate knowledge of understanding the safe operation of a chain saw.

Duration: 4 Hours

Pre-Requisite(s): None

Objectives and Content:

1. Identify the types of chain saws.
2. Describe the safe operation, maintenance and storage of chain saws.

Practical Requirements:

1. Identify and select required safety equipment.
2. Demonstrate safe operation of a chain saw.
3. Demonstrate safe maintenance of a chain saw.
4. Demonstrate safe storage of a chain saw.

LA1110 Fall Protection Awareness

Learning Outcomes:

- Demonstrate knowledge of understanding the safe and efficient use and care of fall protection equipment for working safely when off the ground or in areas where fall hazards exist.

Duration: 6 Hours

Pre-Requisite(s): None

Objectives and Content:

1. Define the term fall protection.
2. Explain why fall protection is important in the workplace.
3. Determine when to use fall protection.
4. List the A, B, C, D's of a complete fall protection system.
5. Describe the basic function of a travel restrict system.
 - i. permanent and temporary guard rails
 - ii. personal travel restrict systems
6. Describe the basic function of a fall arrest system.
 - i. identify the components of a personal fall arrest system
 - full body harness
 - shock absorbers
 - lanyards
 - lifelines
 - vertical
 - horizontal
 - rope grabs
 - anchors
 - ii. explain how to put on a full body harness

7. Describe the basic function of a work positioning system.
 - i. list the components of a personal work positioning system
8. Explain when inspections on equipment must be conducted and what action must be taken if defects or damage is discovered.
 - i. list components of equipment that require inspection

Practical Requirements:

None.

AJ1111 Carpentry Fundamentals

Learning Outcomes:

- Demonstrate knowledge of various construction tools and materials.
- Demonstrate knowledge of safe work practices.
- Demonstrate knowledge of environmental conservation issues and concerns.
- Demonstrate knowledge of identifying, selecting, estimating and conserving building materials.

Duration: 74 Hours

Pre-Requisite(s): None

Objectives and Content:

1. Describe types of construction tools and equipment.
2. Explain general workplace safety regulations.
3. Describe different types of building materials and fasteners.

Practical Requirements:

1. Use and maintain hand tools.
 - i. measuring tools
 - ii. marking and layout tools
 - iii. aligning and squaring tools
 - iv. edge cutting tools
 - v. tooth cutting tools
 - vi. scraping tools
 - vii. boring and drilling tools
 - viii. assembly tools
 - ix. dismantling tools
 - x. clamping tools
2. Uses and maintain portable power tools.
 - i. portable saws
 - ii. portable planing and shaping tools
 - iii. portable drilling and fastening tools
 - iv. plate joiner

- v. portable abrading tools
 - vi. cordless power tools
 - vii. pneumatic power tools
 - viii. gas-powered tools
 - ix. explosive actuated tools
3. Use and maintain stationary power tools.
- i. stationary sawing tools
 - ii. stationary sanding and abrading tools
 - iii. stationary surfacing machines
 - iv. stationary drilling and boring tools
 - v. stationary grinding and sharpening tools
 - vi. stationary shaper and router table
 - vii. wood lathe
 - viii. mortiser
4. Identify and select building materials.
- i. concrete
 - ii. wood
 - iii. masonry
 - iv. metal
 - v. engineered wood
 - vi. panels
 - vii. plastic
 - viii. glass
 - ix. ceramic
 - x. fiberglass
 - xi. gypsum
 - xii. polystyrene
5. Identify and select fasteners.
- i. screws
 - ii. nails
 - iii. bolts
 - iv. staples
 - v. embeds
 - vi. anchors
 - vii. rivets
 - viii. adhesives
 - ix. gang plate
 - x. joist hangers

6. Build equipment used on job sites, using hand tools such as:
 - i. carpenters horse/saw horse
 - ii. miter box
 - iii. door jack
 - iv. oil stone case

AJ1160 Blueprint Reading

Learning Outcomes:

- Demonstrate knowledge of understanding how to read basic drawings and diagrams, basic sketching, and interpretation of specifications.

Duration: 45 Hours

Pre-Requisite(s): None

Objectives and Content:

1. Identify the alphabet of lines.
2. Identify the basic drawing symbols.
3. Explain the rules of dimensioning.
4. Describe metric, architectural and civil scales.
5. Describe different view orientations.
6. Describe obliques, isometrics and perspectives.
7. Describe the six principle views.
8. Describe the purpose and types of sectional views.
9. Explain conventions associated with sectional views such as symbols, cutting plane lines, broken-out lines, etc.
10. Identify standard drawing symbols used on basic electrical, mechanical and plumbing drawings.
11. Explain the use of graphs.

Practical Requirements:

1. Sketch geometric shapes and lines.
 - i. draw lines to scale
 - ii. scale lines
 - iii. divide lines into equal parts
 - iv. bisect lines
 - v. sketch angles
 - vi. bisect angles
 - vii. sketch concave and convex curves
 - viii. sketch circles, arcs, tangents, ellipses, polygons, etc

2. Sketch orthographic projections.
 - i. visualize object
 - ii. select views
 - iii. layout sketch
 - iv. sketch projection
 - v. dimension sketch
 - vi. make notations

3. Sketch sectional views.
 - i. locate section
 - ii. select type of view
 - iii. determine scale
 - iv. sketch view
 - v. dimension sketch
 - vi. make notations

4. Sketch primary auxiliary views.
 - i. visualize the view
 - ii. layout the sketch
 - iii. sketch view
 - iv. dimension sketch
 - v. make notations

5. Interpret specifications.
 - i. interpret manufacturing specifications
 - ii. identify tolerance specifications
 - iii. interpret specifications (company standards books)
 - iv. interpret schedules
 - door and window schedules
 - interior finish schedules
 - v. contract documents (residential)

6. Interpret mechanical drawings.
 - i. interpret and apply required information from mechanical drawings
7. Interpret electrical drawings.
 - i. interpret and apply required information from electrical drawings
8. Read architectural and structural drawings.
 - i. read plot plan, foundation plans, floor plans, details, elevations and sections

AJ2430 Scaffolding

Learning Outcomes:

- Demonstrate knowledge of understanding the construction of wood scaffolds.
- Demonstrate knowledge of understanding the assembly of metal scaffolds.

Duration: 45 Hours

Pre-Requisite(s): AJ1111, LA1110

Objectives and Content:

1. Describe construction techniques for wood scaffolds.
2. Describe safety requirements for erecting scaffolds.
3. Describe the different types of scaffolds.
4. Describe the different types of ladders.
5. Describe power scaffolding.

Practical Requirements:

1. Build common wood scaffolds.
 - i. build wood scaffolds according to safety regulations and Occupational Health and Safety
 - ii. dismantle wood scaffolds
 - iii. design scaffolds for economy of time and material
2. Use steel scaffolding.
 - i. inspect scaffolding before using
 - ii. erect and dismantle standard steel scaffolds according to safety regulations and Occupational Health and Safety
 - iii. erect, dismantle and maintain rolling scaffolds
 - iv. use pump jack scaffolds
 - v. use roof brackets

3. Use introductory rigging methods.
 - i. demonstrate use of knots
 - ii. list the different kinds of knots
 - iii. describe the different types/ uses of ropes

AJ1121 Rigging

Learning Outcomes:

- Demonstrate knowledge of understanding how to safely install rigging.

Duration: 30 Hours

Pre-Requisite(s): AJ1111, LA1110

Objectives and Content:

1. List the Occupational Health and Safety Regulations for rigging.
2. Describe the different types of ropes.
3. List the different kinds of knots.
4. Describe slings.
5. Describe methods of load balancing.
6. Describe the proper procedures and equipment for handling heavy objects.
7. Specify the use of screw jacks versus hydraulic units.

Practical Requirements:

1. Use and maintain rigging equipment.
 - i. recognize and use international hand signals
 - ii. calculate safe working loads
 - iii. interpret occupational health and safety regulations
 - iv. demonstrate the safe and proper use of lifting equipment such as come-a-longs, chain falls, jacks, winches, overhead cranes, jacks, skids, cable tuggers, plate grabs, reeved blocks, slings and rope
 - v. demonstrate proper use of knots
 - vi. use lifting attachments such as eye bolts and lifting lugs, beam clamps and crawlers, snatch blocks, spreader bars, shackles and screw jacks
 - vii. transfer loads using lifting equipment
 - viii. use hoisting equipment
 - ix. direct/assist in loading/unloading and placement of materials
 - x. safely distribute materials to work stations to prevent overloading of structural components (i.e: trusses and joists)

2. Identify different types of cranes.
3. Use overhead cranes to conduct a proper lift. [Theory]
 - i. use proper lifting procedures
 - ii. use hoisting and crane signals
 - iii. use plate grab and/or slings

AJ1201 Layout and Footings

Learning Outcomes:

- Demonstrate knowledge of understanding layout and footings construction with respect to various codes and regulations.

Duration: 80 Hours

Pre-Requisite(s): AJ1111

Objectives and Content:

1. Describe types of batterboards and layout techniques.
2. Explain footing form construction techniques.
3. Identify concrete placing equipment.
4. Describe how to calculate volume of concrete in S.I. / Imperial.

Practical Requirements:

1. Perform site preparations.
 - i. explain the procedure of excavating techniques (digging/backfilling)
 - ii. determine site conditions and specify any special construction considerations:
 - subterranean
 - water problems
 - shoring and bracing requirements
 - depth of frost
 - pumping requirements
 - building line setbacks
 - servicing requirements (water and sewer)
 - top of concrete elevations
 - size of the footings
 - iii. build and install temporary safety or environmental protection
 - hoarding
 - guardrails

- iv. plan storage of and access to building materials and equipment
 - v. interpret and comply with national, provincial and municipal codes and regulations (if applicable):
 - employment
 - health
 - environment
 - security regulations and standards
2. Layout and erect batterboards and building lines.
- i. locate property lines
 - ii. establish building lines
 - grid lines
 - iii. erect batterboards
 - iv. explain requirements of excavation
 - v. read architectural and structural drawings
 - read plot plan
 - read foundation plans
3. Use survey instruments.
- i. knowledge of basic survey terminology
 - ii. set up, adjust, and use builder's and laser levels
 - iii. determine instrument accuracy
 - iv. establish grades using straight edge and level, builder's level, and water level
4. Construct and install footing forms.
- i. determine footing size
 - pier footing
 - pre-fabricated cylindrical form
 - pre-engineered footing forms
 - ii. align and brace footing forms
 - iii. build footing forms as detailed on footing schedule or structural drawings
 - iv. construct independent tapered forms
 - v. construct offset footing forms
 - vi. construct continuous footing forms
 - vii. construct "t" type footing forms
 - viii. construct stepped footing forms
 - ix. install blockouts, keyways, template for dowels, anchor bolts and rebar
 - x. strip footing forms
 - xi. find and interpret specific requirements in the national building code
 - xii. calculate volume of concrete S.I. / Imperial

AJ1211 Wall Forms

Learning Outcomes:

- Demonstrate knowledge of understanding layout techniques and construction of wall forms with respect to various codes and regulations.

Duration: 80 Hours

Pre-Requisite(s): AJ1201

Objectives and Content:

1. Describe types and variations of wall forms.
2. Explain construction techniques for building and stripping wall forms.
3. Explain foundation drainage and various dampproofing techniques.
4. Identify preserved wood foundation wall. [Theory]
5. Describe foundation drainage and dampproofing.
 - i. foundation drainage (storm sewer, dry wells, sump pumps)
 - ii. dampproofing materials
 - iii. waterproofing materials
 - iv. surface grading

Practical Requirements:

1. Construct and install wall forms.
 - i. construct or assemble forms for concrete in wood and ICF
 - ii. describe other concrete forms such as steel, fiberglass, gang, one-sided, expanded polystyrene (EPS), tilt up, slip forms
 - iii. establish and layout walls and openings
 - iv. brace and align wall forms
 - v. establish the specified elevation of concrete on the forms
 - vi. construct beam pockets, sleeves and chases
 - vii. fur out and brace window and door frames
 - viii. install embedded sills

- ix. strip wall forms
 - x. describe concrete curing methods and techniques
 - curing times
 - releasing agents
 - admixtures
 - xi. material estimation
 - concrete and form material
 - xii. describe types of foundation and elevations:
 - slab-on-grade
 - knee wall
2. Install rough bucks and frames in masonry / concrete.
- i. construct and install wooden bucks, bulkheads, and cast-in-place windows
 - ii. set metal door / window frames for masonry
 - iii. install miscellaneous inserts, block-outs, rustications, frames and rough bucks, anchor bolts, reinforcement and construction joints
3. Build ramps, runways, chutes and splashboards.
- i. construct runways
 - ii. construct ramps
 - iii. construct splashboards
 - iv. construct concrete chutes
4. Interpret mechanical drawings.
- i. interpret and apply required information from mechanical drawings
5. Interpret electrical drawings.
- i. interpret and apply required information from electrical drawings
6. Read architectural and structural drawings.
- i. read foundation plans, floor plans, details, section views and elevation views
 - ii. read and interpret specifications
7. Use codes, regulations and standards.
- i. find and interpret specific requirements in the national building code
 - ii. find and interpret specific requirements in the national energy code
 - iii. interpret and comply with national, provincial and municipal codes and regulations (if applicable):
 - employment
 - health
 - environment
 - security regulations and standards

CAR-155 Concrete

Learning Outcomes:

- Demonstrate knowledge of concrete, its characteristics and applications.
- Demonstrate knowledge of concrete reinforcement and embedded materials and their applications.
- Demonstrate knowledge of concrete tests and their associated procedures.
- Demonstrate knowledge of the procedures used to place, finish and cure concrete.

Duration: 12 Hours

Pre-Requisite(s): AJ1201, AJ1211

Objectives and Content:

1. Define terminology associated with concrete.
2. Identify hazards and describe safe work practices pertaining to concrete.
3. Interpret codes and regulations pertaining to concrete.
4. Interpret information pertaining to concrete found on drawings and specifications.
5. Identify tools and equipment used to test, consolidate and finish concrete, and describe their applications and procedures for use.
6. Identify concrete structures and describe their characteristics and applications.
 - i. cast-in-place
 - ii. pre-cast
7. Identify types of concrete reinforcement and describe their applications.
 - i. rebar and accessories
 - ii. stirrups
 - iii. collars
 - iv. fibre
 - v. mesh
 - vi. dowels

8. Identify types of embedded materials and describe their applications.
 - i. anchor bolts
 - ii. inserts
 - iii. weld plates
 - iv. angle iron
 - v. temperature bars
 - vi. water stop
 - vii. form voids
 - viii. sleeves
 - ix. stud welding fasteners
 - x. conduit
 - xi. isolation joint
9. Describe the effects of water/cement ratio on concrete.
10. Describe the effects of aggregate size on concrete.
11. Identify additives/admixtures used in concrete and describe their purpose and applications.
12. Identify types of concrete tests and describe their associated procedures.
 - i. slump
 - ii. air entrainment
 - iii. compression
 - iv. temperature
13. Identify types of joints and describe their applications.
 - i. isolation
 - ii. expansion
 - iii. control
 - iv. construction
14. Describe the procedures used to place, consolidate and finish concrete.
15. Describe the procedures used to facilitate the curing of concrete.

Practical Requirements:

None.

AJ1221 Floor and Wall Framing

Learning Outcomes:

- Demonstrate knowledge of understanding wall and floor framing with respect to various codes and regulations.

Duration: 90 Hours

Pre-Requisite(s): AJ1111

Objectives and Content:

1. Describe types of beams and columns.
2. Describe types of floors.
3. Describe types of walls and partitions.
4. Explain construction techniques for columns, beams, floors, and walls / partitions.
5. Identify new types of construction materials.

Practical Requirements:

1. Set sills.
 - i. mark out anchor bolt locations on sill stock
 - ii. level sills
 - iii. check foundations for trueness
 - iv. select suitable sill stock
 - v. install sill material, gaskets or sill sealers using anchor bolts
2. Construct and install beams.
 - i. plan end joint locations in built-up wood beams
 - ii. pre-engineered wood beams:
 - LVL
 - glu-lam
 - iii. steel beams

3. Install columns.
 - i. locate columns on their base
 - ii. build columns
 - iii. construct temporary posting for beams
 - iv. install adjustable steel columns

4. Prepare and install conventional floor framing.
 - i. identify various types of floor framing systems and describe the advantages and disadvantages of various materials:
 - balloon framing
 - platform framing
 - post and beam
 - ii. estimate material needed for a wood floor system
 - iii. define live and dead loads and state the important load considerations for floor framing
 - iv. layout and frame floor framing features (stairwells, cantilevers, sunken and drop floors)
 - v. notch and drill floor framing members while maintaining floor strength
 - vi. frame joists to steel beams and special engineered wood beams
 - vii. square and level floor framing
 - viii. calculate and cut bridging
 - ix. install bridging, strapping, shims and ribbon strip
 - x. install subfloor over concrete
 - xi. exercise material conservation

5. Prepare and install pre-engineered floor framing.
 - i. identify various types of floor framing systems and describe the advantages and disadvantages of various materials:
 - wood-I joist
 - floor trusses
 - ii. layout and frame floor framing features:
 - stairwells
 - cantilevers
 - sunken and drop floors
 - iii. notch and drill floor framing members while maintaining floor strength and following manufacturer's specifications
 - iv. frame joists to steel beams and special engineered wood beams
 - v. square and level floor framing
 - vi. install lateral and vertical bracings such as strong back, blocking, and backing according to manufacturer's specifications
 - vii. install engineered components such as hangers and fasteners in accordance with manufacturer's specifications

6. Install floor sheathing.
 - i. identify types of floor sheathing and explain the selection
 - ii. choose floor fasteners and adhesives to satisfy the fastening requirements
 - iii. lay out and install floor sheathing

7. Frame exterior walls.
 - i. list and describe types of wall framing
 - ii. state the important loading conditions to be considered when framing walls
 - iii. notch and drill wall framing members while maintaining strength
 - iv. determine and layout location of walls
 - v. select materials for wall framing
 - vi. layout and assemble framing members
 - vii. calculate stud lengths
 - viii. install blocking, nailers, furring, firestops
 - ix. determine rough opening sizes for windows and doors
 - x. determine size of lintels
 - xi. install let-in bracing
 - xii. assemble and raise wall frames - plumb and square
 - xiii. estimate wall framing materials
 - xiv. exercise material conservation and energy efficiency

8. Install wall sheathing.
 - i. identify types of wall sheathing materials
 - ii. select wall fasteners, adhesives to satisfy fastening requirements
 - iii. lay out wall sheathing
 - iv. install wall sheathing
 - v. exercise material conservation

9. Frame bearing and non-bearing partitions.
 - i. establish size of framing material
 - ii. build partitions using wood
 - iii. build partitions using steel studs
 - iv. exercise material conservation

10. Install ceiling strapping.

11. Read architectural and structural drawings.
 - i. elevations, details, sections
 - ii. floor plans
 - iii. foundation plans
 - iv. engineered drawings
 - v. schedules

12. Use codes, regulations and standards.

- i. find and interpret specific requirements in the National Building Code
- ii. find and interpret specific requirements in the National Energy Code
- iii. find and interpret specific requirements in the Buildings Accessibility Act and Regulations
- iv. find and interpret specific requirements in the Canadian Wood Council Span Book
- v. interpret and comply with national, provincial and municipal codes and regulations (if applicable):
 - employment
 - health
 - environment
 - security regulations and standards

AJ1410 Interior Fundamentals

Learning Outcomes:

- Demonstrate knowledge of understanding interior wall finishes and ceiling installation with respect to various codes and regulations.

Duration: 60 Hours

Pre-Requisite(s): AJ1221

Objectives and Content:

1. Describe types of drywall systems.
2. Explain interior wall and ceiling components.
3. Describe insulation and vapour barrier principles.
4. Describe how to apply special types of interior wall coverings.
 - i. tile boards with adhesive and mouldings
 - ii. plastic laminates
5. Describe demountable wall systems.
6. Explain fire blocking and fire separation.

Practical Requirements:

1. Apply gypsum drywall systems.
 - i. identify and select gypsum wallboard accessories and products
 - ii. use fasteners and adhesives
 - iii. install gypsum sheets on walls and ceilings
 - iv. estimate materials
2. Apply decorative panels.
 - i. plan and install paneling
 - ii. install architectural paneling and millwork:
 - wainscoting
 - slat wall
 - solid wood finishes
 - iii. estimate materials
3. Install furring and frame drop ceilings and bulkheads.

- i. identify various uses for dropped ceilings:
 - architectural features
 - cabinet projections
 - concealing ducts
 - ii. plan and install frame work for drop ceilings
 - iii. use leveling instruments to establish elevation
 - iv. estimate materials
4. Install suspended ceiling.
- i. layout for ceiling pattern
 - ii. establish reference lines
 - iii. install components of a suspended ceiling
 - iv. estimate materials
5. Install acoustical materials.
- i. install acoustical ceiling tile
 - ii. install fiberglass batts or blankets in staggered stud partitions
 - iii. install resilient channels on walls and ceilings
 - iv. install acoustical sealants
 - v. estimate materials
6. Install insulation and vapour barrier.
- i. install glass fiber and rigid thermal insulation in frame walls
 - ii. install glass fiber thermal insulation in ceiling spaces
 - iii. install vapour barriers on walls and ceilings
 - iv. provide adequate ventilation of attic and roof spaces
 - v. estimate materials
 - vi. explain different types of insulation:
 - blown in
 - expansion
 - rigid
 - fiberglass
 - vii. explain building science principals:
 - air movement
 - heat transfer
 - vapour flow
 - viii. explain mechanical ventilation:
 - dryer
 - bathroom vent
 - range hood
 - air exchanger

7. Use codes, regulations and standards.
 - i. find and interpret specific requirements in the National Building Code
 - ii. find and interpret specific requirements in the National Energy Code
 - iii. interpret and comply with national, provincial and municipal codes and regulations (if applicable):
 - employment
 - health
 - environment
 - security regulations and standards

8. Read architectural drawings.
 - i. specifications, sections, elevations
 - ii. reflected ceiling plan

AJ1501 Interior Trim

Learning Outcomes:

- Demonstrate knowledge of understanding interior trim installation with respect to various codes and regulations.

Duration: 60 Hours

Pre-Requisite(s): AJ1111

Objectives and Content:

1. Describe types of interior windows, doors and trim.
2. Explain installation techniques for interior windows, doors and trim.
3. Identify special accessibility considerations and equipment (barrier-free).
4. Explain types and uses of finish nailers and associated equipment.
5. Explain the installation procedures for specialized flooring systems.
 - i. access flooring
 - ii. bowling alleys
 - iii. gymnasiums
 - iv. ceramic tiles

Practical Requirements:

1. Install underlayment and strip flooring.
 - i. prepare for laying finish floors
 - ii. estimate amount of materials needed for finish floor and underlay
 - iii. install underlay
 - iv. lay strip flooring
 - v. install laminate flooring
2. Install common interior door and window frames.
 - i. read door & window schedules
 - ii. determine doors & windows required
 - iii. determine swing of doors
 - iv. install frames

3. Installs doors.
 - i. describe types of doors:
 - panel
 - flush
 - pocket
 - bi-fold
 - French
 - attic hatch
 - access hatches
 - ii. describe types of hardware:
 - hinges
 - closures
 - lock sets
 - panic hardware
 - dead bolts
 - iii. layout and install door and hardware
 - chisel
 - router
 - jigs
 - iv. install metal jambs and pre-hung doors
 - v. install stops:
 - floor
 - baseboard
 - jamb
 - vi. test and adjust doors

4. Install interior trim.
 - i. cut rabbet and mitre joints
 - ii. cope mouldings
 - iii. return mouldings on themselves
 - iv. install mouldings using finish nailer
 - base
 - crown
 - chair rail
 - v. trim windows and doors (casing and furring) using finish nailer
 - vi. install closet shelving and closet rods
 - vii. scribe materials
 - viii. estimate materials

5. Use codes, regulations and standards.
 - i. find and interpret specific requirements in the National Building Code
 - ii. find and interpret specific requirements in the Buildings Accessibility Act and Regulations
 - iii. interpret and comply with national, provincial and municipal codes and regulations (if applicable):
 - employment
 - health
 - environment
 - security regulations and standards

6. Read architectural drawings.
 - i. specifications
 - ii. schedules
 - iii. details
 - iv. elevations

AJ2420 Post and Beam

Learning Outcomes:

- Demonstrate knowledge of beams and supports, their characteristics and applications.
- Demonstrate knowledge of the procedures used to construct and install beams and supports.

Duration: 30 Hours

Pre-Requisite(s): AJ1221, AJ1410

Objectives and Content:

1. Define terminology associated with beams and supports.
2. Identify hazards and describe safe work practices pertaining to beams and supports.
3. Interpret codes and regulations pertaining to the construction and installation of beams and supports.
4. Interpret information pertaining to beams and supports found on drawings and specifications.
5. Identify tools and equipment used to construct and install beams and supports, and describe their applications and procedures for use.
6. Identify types of beams and describe their characteristics and applications.
 - i. built-up
 - ii. engineered
 - iii. steel
 - iv. concrete
7. Identify types of beam supports and describe their characteristics and applications.
8. Identify fastening methods used to install beams and supports, and describe their associated procedures.
 - i. grout
 - ii. pockets

9. Describe the forces acting on beams.
10. Identify factors to consider when determining beam and support systems.
11. Identify construction techniques pertaining to beam and support systems.
12. Describe the procedures used to construct built-up beams.
13. Describe the procedures used to install beams and supports.
14. Identify materials/fasteners, adhesives and connectors used to construct beams and supports and describe their characteristics and applications.

Practical Requirements:

1. Build and erect post and beam and structural timber framework.
 - i. assemble frame work used in timber construction
 - ii. erect frame work used in timber construction

AJ1310 Roof Fundamentals

Learning Outcomes:

- Demonstrate knowledge understanding basic roof framing with respect to various codes and regulations.

Duration: 80 Hours

Pre-Requisite(s): AJ1221

Objectives and Content:

1. Describe roof types.
2. Describe roof coverings.
3. Explain construction and installation techniques for different types of frames and coverings.

Practical Requirements:

1. Describe and install trussed rafters.
 - i. identify and describe different roof styles
 - ii. identify types of trusses to be used
 - iii. identify and describe roof truss members
 - purlins
 - webs
 - gussets
 - gang plates
 - bracing
 - hardware
 - chords
 - iv. interpret basic engineered truss plans / drawings:
 - gable
 - hip
 - v. install trussed rafters
2. Frame and erect gable and shed roofs.
 - i. layout and calculate for common rafters
 - ii. layout ceiling joist and rafter locations
 - iii. layout a common rafter pattern
 - iv. install common ceiling joists and rafters
 - v. describe how to frame roof openings

- vi. layout and cut gable studs
 - vii. layout and frame gable overhang
 - viii. layout shed rafter cut for dormers
 - ix. prepare the roof for sheathing
 - x. layout and cut collar ties
 - xi. layout rafter locations on wall plates and ridge board
 - xii. estimate roof frame materials
3. Install roof sheathing.
- i. identify and describe types of roof sheathing
 - ii. identify and describe roof fasteners, adhesives and fastening requirements
 - iii. select roof sheathing materials and fasteners
 - iv. layout and install roof sheathing
 - v. estimate sheathing materials
4. Build cornices.
- i. draw a full size view of a cornice
 - ii. align rafter tails
 - iii. install lookouts and rough fascia
 - iv. install fascia board on eaves and rakes
 - v. mitre fascia and frieze boards
 - vi. describe installation of gutters and downspouts
5. Install common roof coverings.
- i. check and repair roof sheathing
 - ii. demonstrate safe use of roof brackets
 - iii. plan installation of asphalt / fiberglass roof shingles
 - iv. install underlayment and eave protection
 - v. install valley flashings and intersecting walls
 - vi. apply asphalt/ fiberglass shingles
 - vii. describe low slope applications of asphalt/ fiberglass shingles
 - viii. flash roof penetrations (vent stacks, roof vents, flash chimneys)
 - ix. install ridge cap and vent
 - x. identify and select fasteners
 - xi. estimate materials
 - xii. identify and describe roof venting requirements

6. Use codes, regulations and standards.
 - i. find and interpret specific requirements in the National Building Code
 - ii. find and interpret specific requirements in the National Energy Code
 - iii. interpret and comply with national, provincial and municipal codes and regulations (if applicable):
 - employment
 - health
 - environment
 - security regulations and standards

7. Read architectural and structural drawings.
 - i. elevations, details, specifications, sections
 - ii. floor plans
 - iii. engineered drawings

AJ1231 Exterior Finish

Learning Outcomes:

- Demonstrate knowledge of understanding the installation of exterior finishes with respect to various codes and regulations.

Duration: 60 Hours

Pre-Requisite(s): AJ1111

Objectives and Content:

1. Describe types of exterior framing.
2. Describe types of exterior wall trim and finishes.
3. Describe construction techniques for installing exterior framing and trim.
4. Describe types of exterior windows and doors.
5. Explain the installation procedures for other special cladding.
 - i. metal
 - ii. composite
 - iii. cementitious
 - iv. stucco
 - v. brick veneer
 - vi. exterior finish insulation systems (EFIS)

Practical Requirements:

1. Exterior doors and windows.
 - i. read door and window schedules
 - ii. determine the size and type of windows required
 - iii. determine swing of doors
 - iv. select doors and windows
 - v. check rough stud opening sizes (RSO)
 - vi. install building paper around exterior openings
 - vii. install exterior windows and doors
 - viii. install backing/blocking for security purposes
 - ix. insulate cavities around frames
 - x. read hardware schedule/list
 - xi. install and adjust hardware

2. Install wood sidings.
 - i. install building paper and wood furring to wall sheathing
 - ii. apply built-up corner boards
 - iii. install exterior wall flashing
 - iv. apply sidings to achieve a watertight finish
 - v. use story poles
 - vi. alternate and lap corners of siding
 - vii. install exterior trim:
 - window and door moulding trim
 - drip caps and brick moulding
 - corner boards
 - frieze boards
 - water table
 - barge boards
 - viii. mitre corners of clapboards
 - ix. estimate materials
3. Install vinyl siding.
 - i. cut vinyl siding
 - ii. fasten vinyl siding
 - iii. install siding accessories / trim
 - iv. wall preparations
 - v. install soffit and fascia
 - vi. estimate materials
4. Read architectural and structural drawings.
 - i. elevations, details, sections
 - ii. schedules
5. Use codes, regulations and standards.
 - i. find and interpret specific requirements in the National Building Code
 - ii. find and interpret specific requirements in the National Energy Code
 - iii. interpret and comply with national, provincial and municipal codes and regulations (if applicable):
 - employment
 - health
 - environment
 - security regulations and standards

CAR-225 Deck Layout and Framing

Learning Outcomes:

- Demonstrate knowledge of decks and their applications.
- Demonstrate knowledge of deck components, accessories and materials, and their applications.
- Demonstrate knowledge of the procedures used to lay out and construct decks.

Duration: 9 Hours

Pre-Requisite(s): AJ1221

Objectives and Content:

1. Define terminology associated with decks.
2. Identify hazards and describe safe work practices pertaining to decks.
3. Interpret codes and regulations pertaining to decks.
4. Interpret information pertaining to decks found on drawings and specifications.
5. Identify tools and equipment used to lay out and construct decks, and describe their applications and procedures for use.
6. Identify types of decks, and describe their characteristics and applications.
7. Identify deck components, accessories and materials, and describe their purpose and applications.
 - i. traditional site-built
 - ii. pre-fabricated (manufactured) prefabricated
8. Identify factors to consider when determining deck systems.
9. Identify the considerations for barrier-free/accessible decks.
 - i. ramps
 - ii. guards/rails
 - iii. landings
10. Identify construction techniques pertaining to deck framing.
11. Describe the procedures used to lay out and construct decks.
12. Describe methods used to attach decks to existing structures.

13. Describe methods used to construct free standing/stand-alone decks.
14. Calculate dimensions for ramps and landings.
15. Calculate materials needed to construct a deck.
16. Identify materials/fasteners, adhesives and connectors used to construct decks and describe their characteristics and applications.

Practical Requirements:

None

AJ1601 Stair Fundamentals

Learning Outcomes:

- Demonstrate knowledge of understanding basic stairs construction with respect to various codes and regulations.
- Demonstrate knowledge of understanding how to perform stair calculations.

Duration: 60 Hours

Pre-Requisite(s): AJ1111

Objectives and Content:

1. Describe how to perform stair calculations.
2. Describe safety requirements when constructing stairs.
3. Explain construction techniques for basic stairs.
4. Describe accessibility ramp requirements.
 - i. describe and explain national building code requirements
 - ii. types of ramps (wood, concrete)

Practical Requirements:

1. Build basement stairs and exterior steps.
 - i. identify various stair designs
 - ii. determine stairway components and materials
 - iii. calculate unit rise and unit run of stairs
 - iv. layout and install stair landings (interior and exterior)
 - v. calculate, layout and cut stringers
 - vi. install stringers, treads, risers and hand rails
 - vii. estimate materials
2. Use codes, regulations and standards.
 - i. find and interpret specific requirements in the national building code
 - ii. find and interpret specific requirements in the buildings accessibility act and regulations
 - iii. interpret and comply with national, provincial and municipal codes and regulations (if applicable) - employment, health, environment, security regulations and standards, etcetera
3. Read architectural drawings.

- i. specifications
- ii. schedules
- iii. details
- iv. elevations

AJ1170 Residential Estimating

Learning Outcomes:

- Demonstrate knowledge of understanding how to read and interpret residential blueprint drawings.
- Demonstrate knowledge of understanding how to perform quantity take-offs.

Duration: 30 Hours

Pre-Requisite(s): AJ1211, AJ1231, AJ1310, AJ1410, AJ1501, AJ1601

Objectives and Content:

1. Explain how to interpret plans.
2. Describe how to calculate material quantities.

Practical Requirements:

1. Interpret residential plans.
 - i. plot plans
 - ii. foundation plans
 - iii. floor plans
 - iv. elevations
 - v. sections
 - vi. details
 - vii. schedules
 - viii. mechanical
 - ix. electrical
2. Perform quantity take-offs.
 - i. foundations
 - ii. framing
 - iii. exterior finishes
 - iv. interior finishes

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 content¹
 - ii. OLES Essential Skills Profiles²
 - iii. OLES tools and support for apprentices and tradespersons³
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 Indicator⁴ and Essential Skills self-assessment for the trades⁵** 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 Trade Certification.

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.
 - 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 2 apprentice and the wage percentage of that level

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.

AM1131 Carpenter 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.
- Demonstrate 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 knowledge of workplace requirements in the areas of personal responsibility, unions, workers compensation, workers' rights, and human rights.
- Demonstrate 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

Learning 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
 - adjust desktop settings such as screen savers, screen resolution, and backgrounds
 - vii. 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.

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

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

Carpenter - 7200 Hours		
Class Calls (After Apprenticeship Registration)		
Call Level	Requirements for Class Call	Hours awarded for In-School Training
Direct Entry Level 1	<ul style="list-style-type: none"> ▪ Minimum of 1800 hours of relevant work experience ▪ Prior Learning Assessment (PLA) at designated college (if applicable) 	240
Level 2	<ul style="list-style-type: none"> ▪ Minimum of 3000 hours of relevant work experience and training 	240
Level 3	<ul style="list-style-type: none"> ▪ Minimum of 5000 hours of relevant work experience and training 	210
Level 4	<ul style="list-style-type: none"> ▪ Minimum of 7000 hours of relevant work experience and training 	210
<p>Class Calls at Minimum Hours</p> <ul style="list-style-type: none"> ▪ 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. 		

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 regularly attend training programs 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 journeyperson supervisor who is located at the same worksite as the apprentice, and that the apprentice is able to communicate with the journeyperson 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 10,800 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.