

# Essential Skills (Related) Courses



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New	March 2019	September 2019 in all Pre-Employment training	Update to Essential Skills (Related) courses in the Pre-Employment level of all Plans of Training
Updated	Sept 2019	September 2019 in all Pre-Employment training	Adjusted Math Fundamentals course numbers to remove duplicate course

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## Course Structure

Course No.	Course Name	Hours	Pre-Requisite(s)
AM1000	Introduction to Essential Skills	9	None
AM1101	Math Essentials	42	None
AM1xxx	<b>Trade Specific</b> 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
Total Hours		180	

The courses contained in this package will replace the current courses (noted below) in the Pre-Employment level in all Plans of Training, effective **September 2019**.

Course No.	Course Name	Hours	Pre-Requisite(s)
AM1100	Math Essentials	30	None
AM1xxx	<b>Trade Specific</b> Math Fundamentals*	30	AM1100
CM2160	Communication Essentials	45	None
SD1760	Workplace Essentials	45	None
MC1060	Computer Essentials	15	None
AP1101	Introduction to Apprenticeship	15	None
Total Hours		180	

\* See the list of trade specific course numbers in Appendix A –Table of Math Fundamentals trades specific courses.

## 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 AM1100 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
  - i. 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.

## AM111X – AM1XXX (Unique Name) 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 SD1760 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

### 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 Advanced Education, Skills and Labour
    - 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/app](http://www.gov.nl.ca/app).
- 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

## Appendix A – Table of Math Fundamentals Trade Specific Courses

<b>Course No.</b>	<b>Math Fundamentals Course Name</b>	<b>Hours</b>
AM1111	Bricklayer Math Fundamentals	42
AM1121	Cabinetmaker Math Fundamentals	42
AM1131	Carpenter Math Fundamentals	42
AM1141	Concrete Finisher Math Fundamentals	42
AM1151	Cook Math Fundamentals	42
AM1161	Electrician Math Fundamentals	42
AM1171	Heavy Equipment Operator Math Fundamentals	42
AM1181	Industrial Mechanic Math Fundamentals	42
AM1191	Instrumentation and Control Math Fundamentals	42
AM1201	Insulator Math Fundamentals	42
AM1211	Lather Math Fundamentals	42
AM1221	Automotive Service Math Fundamentals	42
AM1231	Metal Fabrication Math Fundamentals	42
AM1241	Auto Body and Collision Math Fundamentals	42
AM1251	Oil Heat System Math Fundamentals	42
AM1261	Plumber Math Fundamentals	42
AM1271	Powerline Technician Math Fundamentals	42
AM1281	Process Math Fundamentals	42
AM1291	Refrigeration Math Fundamentals	42
AM1301	Sheet Metal Math Fundamentals	42
AM1311	Sprinkler Fitter Math Fundamentals	42
AM1321	Welding Math Fundamentals	42
AM1331	Commercial Driver Math Fundamentals	42
AM1341	Hoisting Math Fundamentals	42
AM1351	Ironworker Math Fundamentals	42
AM1361	Powersport Math Fundamentals	42

<b>Course No.</b>	<b>Math Fundamentals Course Name</b>	<b>Hours</b>
AM1370	Heavy Duty and Truck Transport Math Fundamentals	42
AM1390	Steamfitter Pipefitter Math Fundamentals	42
AM1400	Machinist Math Fundamentals	42
AM1410	Landscape Math Fundamentals	42