



PLMB1 – Plumber Apprenticeship Level 1

Trades

Effective Term & Year: Fall 2022

Program Outline Review Date: 2024-03-01

Program Area: Trades Apprenticeship Training

Description:

This 7-week program delivers the skills, knowledge and training required for Level 1 of the four-level Plumber Apprenticeship Program. Program competencies covered include preparing piping and components, installing pipe, valves and fittings, using soldering, brazing and welding equipment, using codes and regulations, interpreting drawings and specifications and apply electrical concepts. The program includes classroom theory, demonstrations and practical hands-on training in a plumber shop setting. Safe work practices related to the plumbing trader are reinforced throughout the program.

Credentials Granted:

Upon successful completion of the 7-week Level 1 Plumber Apprenticeship program, students receive:

- Level 1 Technical Training credit of the Plumber Apprenticeship program from SkilledTradesBC.

Delivery Methods: Face-to-Face, Online

Program Duration: 7 weeks

Instructional Activity and Hours:

Activity	Hours
Instructional Hours (hrs/wk)	28 hrs/wk

Directed Studies (hrs/wk)	2 hrs/wk
Total (hrs/wk)	30 hrs/wk
Total Program Hours	210 Hours

Content Weighting:

Activity	Percentage
Classroom, Directed Studies or Online Instruction	70%
Seminar/Tutorials	30%

Admission Requirements:

Sponsored Plumber Apprentice.

Flexible Assessment:

Credit cannot be awarded for this program through Flexible Assessment.

Program Transfer Credit:

For information about block transfer agreements between programs in British Columbia, Alberta, and elsewhere, please visit <http://www.cotr.bc.ca/transfer>.

To minimize transfer issues, check with an academic advisor at the institution that will receive the transfer credits.

Textbooks and Required Resources:

Textbook selection varies by instructor and may change from year to year. At the Program Outline Effective Date the following textbooks were in use (most current edition):

Plumber – Level 1: COTR Custom Package

Pipe Trades Handbook

Program Competencies and Technical Training Content:

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

PLUMB 101 Perform Safety Related Functions

- Maintains safe work environment
- Use personal protective equipment (PPE) and safety equipment
- Perform lock-out and tag-out procedures
- Practice fire prevention

PLUMB 102 Use Tools and Equipment

- Use common tools and equipment
- Use access equipment
- Use rigging, hoisting, lifting and positioning equipment
- Rig loads for cranes
- Use soldering and brazing equipment
- Use oxy-fuel cutting equipment
- Use welding equipment

PLUMB 103 Perform Routine Trade Activities

- Use mathematics and science
- Interpret drawings and specifications
- Use codes, regulations and standards

PLUMB 104 Prepare Piping and Components

- Prepare pipe
- Join tube, tubing and pipe
- Install pipe
- Install valves
- Install fittings
- Penetrate structures

PLUMB 105 Use Communication Techniques

- Use communication techniques

PLUMB 106 Apply Electrical Concepts

- Use the principles of electricity

Evaluation and Assessment:

PLUMBER APPRENTICESHIP LEVEL 1

COTR COURSE	SUBJECT COMPETENCIES	THEORY WEIGHTING	PRACTICAL WEIGHTING
PLUMB 101	Perform Safety Related Functions	15%	10%
PLUMB 102	Use Tools and Equipment	10%	30%
PLUMB 103	Perform Routine Trade Activities	40%	10%
PLUMB 104	Prepare Piping and Components	15%	50%
PLUMB 105	Use Communication Techniques	5%	0%
PLUMB 106	Apply Electrical Concepts	15%	0%
Total		100%	100%
In-School Theory/Practical Subject Competency Weighting		70%	30%

Final in-school mark

Apprentices must achieve a minimum 70% as the final in-school mark score to be eligible to write the Plumber Standardized Level exam.

IN-SCHOOL %

In-school mark

Combined theory and practical subject competency multiplied by

80%

Standard Level Exam mark

The exam score is multiplied by

20%

Final Level mark

100%

Pass Requirements:

- Successful completion of the in-school training is defined as a final overall minimum of 70% to meet SkilledTradesBC standards.
 - Students must maintain an acceptable level of attendance, complete all assigned projects and pass all exams to successfully complete the program.

Students must provide their own:

- CSA approved personal protective equipment (PPE)
- CSA approved Hardhat, blue in colour
- Steel-toed Work Boots
- Safety Glasses
- Coveralls
- Reference materials
- Pen, pencils, coloured pencils, etc.
- Three-ringed binders and paper (lined and unlined)
- Geometry set
- Calculator
- Gloves

Academic Policies:

College of the Rockies policies related to courses can be found at <https://cotr.bc.ca/about-us/college-policies/> and include the following:

- Policy 2.4.3 Students with Documented Disabilities
- Policy 2.4.4 Student Conduct (plagiarism, other cheating, behavioral misconduct)
- Policy 2.5.8 Academic Performance
- Policy 2.5.3 Grade Appeal
- Policy 2.4.9 Student Concerns Re Faculty

Program Grade

COM	NCG
Completed to the defined standard – 70% or greater	No Credit Granted – less than 70%

Program Changes:

Information contained in program outlines is correct at the time of publication. Content of the program is revised on an ongoing basis to ensure relevance to changing educational, employment, and marketing needs. The instructor endeavours to provide notice of changes to students as soon as possible. The instructor reserves the right to add material to programs.

Industry Training:

The program competencies and technical training content delivered in this program follow the SkilledTradesBC Program Outline for this trade.

Safety Catalog:

WorkSafeBC regulations apply to all trades programs. Students are expected to follow all safe work practices and have high regard for the safety of others as well as of themselves. Students are responsible to wear personal protective equipment (PPE) as directed. At a minimum, students must provide and wear approved safety footwear and eyewear at all times in the shop. Additional PPE may be required for specific tasks. Students are expected to wear clothing suitable for working safely in the shop.

Course Descriptions: Refer to Course Outlines – <https://outlines.cotr.bc.ca/course/>