



## PLMB3 – Plumber Apprenticeship Level 3

### Trades

**Effective Term & Year:** Fall 2022

**Program Outline Review Date:** 2026-03-01

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**Program Area:** Trades Apprenticeship Training

**Description:**

This 7-week program delivers the technical and practical training required for Level 3 of the 4-level Plumber Apprenticeship program. Apprentices will develop the skills, knowledge and training related to installing and maintaining water supply and distribution systems install sewers and sewage treatment systems, install cross connection control devices and assemblies, install hydronic systems, install specialized systems, apply electrical concepts, and plan and install gas-fired appliance system installations. This program includes classroom theory, demonstrations and practical hands-on training in a plumber shop setting. Safe work practices are important in this trade and are emphasized, practiced and reinforced throughout the program.

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**Credentials Granted:**

Upon successful completion of the 7-week Level 3 Plumber Apprenticeship program, students receive:

- Level 3 Technical Training credit of the Plumber Apprenticeship program from SkilledTradesBC

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**Delivery Methods:** Face-to-Face, Online

**Program Duration:** 7 weeks

**Instructional Activity and Hours:**

<b>Activity</b>	<b>Hours</b>
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:**

<b>Activity</b>	<b>Percentage</b>
Classroom, Directed Studies or Online Instruction	80%
Seminar/Tutorials	20%

### **Admission Requirements:**

Sponsored Plumber apprentice who has successfully completed Level 2 Plumber apprentice technical training.

### **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 3: – COTR Custom Package and 2005 National Plumbing Code

- Cross Connection Control manual AWWA
- Cross Connection Control for Plumbing and Pipe Trades
- Commercial Gas Fitting Level B, Modules A – G
- Natural Gas & Propane Installation Code B149 1-10

### **Program Competencies and Technical Training Content:**

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

#### **PLUMB 301 Perform Routine Trade Activities**

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

#### **PLUMB 302 Install Sewers and Sewage Treatment Systems**

- Install piping for sewers
- Install manholes and catch basins

#### **PLUMB 303 Install Water Services and Distribution Systems**

- Install water services
- Install potable water distribution systems

#### **PLUMB 304 Install Cross Connection Control Devices and Assemblies**

- Install and test cross connection control devices and assemblies
- Service cross connection control devices and assemblies

#### **PLUMB 305 Install Hydronic Systems**

- Install piping and components for hydronic systems
- Install hydronic system controls

#### **PLUMB 306 Install Specialized Systems**

- Install piping for specialized systems
- Install equipment and components for specialized systems
- Test specialized systems
- Service specialized systems
- Commission specialized systems

#### **PLUMB 307 Apply Electrical Concepts**

- Use electrical wiring diagrams and schematics

- Apply wiring practices

**PLUMB 308 Plan Gas-Fired Appliance System Installations**

- Size piping and tubing systems
- Select flame safeguards
- Select burners

**PLUMB 309 Install Gas-Fired Systems**

- Install piping and tubing systems

**Evaluation and Assessment:**

**PLUMBER APPRENTICESHIP LEVEL 3**

COTR COURSE	SUBJECT COMPETENCIES	THEORY WEIGHTING	PRACTICAL WEIGHTING
PLUMB 301	Perform Routine Trade Activities	10%	20%
PLUMB 302	Install Sewers and Sewage Treatment Systems	5%	0%
PLUMB 303	Install Water Services and Distribution Systems	15%	15%
PLUMB 304	Install Cross Connection Control Devices and Assemblies	20%	35%
PLUMB 305	Install Hydronic Systems	25%	20%
PLUMB 306	Install Specialized Systems	5%	0%
PLUMB 307	Apply Electrical Concepts	5%	10%
PLUMB 308	Plan Gas-Fired Appliance System Installations	10%	0%
PLUMB 309	Install Gas-Fired Systems	5%	0%
	<b>Total</b>	<b>100%</b>	<b>100%</b>
In-School Theory/Practical Subject Competency Weighting		80%	20%

**Final in-school mark**  
 Apprentices must achieve a minimum 70% for the final in-school mark to be eligible to write the Plumber Standardized Level exam. IN-SCHOOL %

<b>In-school Mark</b>	80%
<b>Standard Level Exam Mark</b> The exam score is multiplied by	20%
<b>Final Level Mark</b>	100%

**Pass Requirements:**

1. 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**

<b>COM</b>	<b>NCG</b>
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/>