

## Plumber – Online Upgrading *A Guide to Course Content*

*Plumbers install, repair and maintain plumbing fixtures and systems such as water, hydronic, drain, waste and vent (DWV), low pressure steam, chemical and irrigation. They also install specialized systems such as medical gas, process piping, compressed air, water conditioners, fuel piping, sewage and water treatment, and storage and flow equipment.*

**Training Requirements:** All candidates applying for upgrading training must be eligible to challenge the Interprovincial Journeyperson examination.

This program is designed to prepare individuals to challenge the Plumber Interprovincial Journeyperson examination.

The upgrading program encompasses the scope of the trade. Completion of all assignments will aid in success.

As there is no practical component to the upgrading training program, additional study and practice is recommended in areas where individuals have minimal on-the-job experience.

### **Important Notes:**

This program uses continuous intake so candidates may apply to begin at any time. Participants will have a maximum of eight months to complete the entire course.

Computers used by participants for this program must meet certain minimum technical requirements. This information will be provided upon successful application to this program.

Interested candidates must contact the SATCC, not Saskatchewan Polytechnic, when applying for this program.

The information contained in this pamphlet serves as a guide for employers and apprentices. The content is based on the 2016 Plumber Red Seal Occupation Standard, which can be found on the Red Seal website at [www.red-seal.ca](http://www.red-seal.ca)

The pamphlet briefly summarizes the training delivered in the upgrading program.

The content of the technical training components is subject to change without notice.

## **A - PERFORMS COMMON OCCUPATIONAL SKILLS**

- **A-1 PERFORMS SAFETY-RELATED FUNCTIONS**
  - Maintains safe work environment
  - Uses personal protective equipment (PPE) and safety equipment.
  - Performs lock-out and tag-out procedures
- **A-2 USES AND MAINTAINS TOOLS AND EQUIPMENT**
  - Uses common tools and equipment
  - Uses access equipment
  - Uses rigging, hoisting, lifting and positioning equipment
  - Rigs loads for cranes
  - Uses welding equipment
  - Uses soldering and brazing equipment
  - Uses oxy-fuel equipment
- **A-3 ORGANIZES WORK**
  - Organizes project tasks and procedures
  - Organizes materials and supplies
- **A-4 PERFORMS ROUTINE TRADE ACTIVITIES**
  - Performs piping system layout
  - Calculates pipe, tube and tubing lengths
  - Calculates piping offsets
  - Installs piping supports
  - Installs sleeves
  - Commissions systems
  - Protects piping systems, equipment and structure from damage
  - Coordinates excavation and backfilling of trenches
  - Installs fire stopping devices and materials
- **A-5 USES COMMUNICATION AND MENTORING TECHNIQUES**
  - Uses communication techniques
  - Uses mentoring techniques

## **B - PREPARES AND ASSEMBLES PIPE**

- **B-6 PREPARES PIPE**
  - Inspects tube, tubing, pipe and fittings before installation
  - Cuts tube, tubing and pipe
  - Bends tube, tubing and pipe
  - Prepares tube, tubing and pipe connections
- **JOINS TUBE, TUBING AND PIPE**
  - Joins copper tube, tubing and pipe
  - Joins plastic pipe and tubing
  - Joins steel pipe
  - Joins cast iron pipe
  - Joins specialized pipe

## **C - INSTALLS, TESTS AND SERVICES SEWERS, SEWAGE TREATMENT SYSTEMS AND DRAINAGE, WASTE AND VET (DWV) SYSTEMS**

- **C-8 INSTALLS, TESTS AND SERVICES SEWERS**
  - Sizes pipe for sewers
  - Installs manholes and catch basins

- Installs piping for sewers
- Tests manholes, catch basins and piping for sewers
- Services manholes, catch basins and piping for sewers
- **C-9 INSTALLS, TESTS AND SERVICES SEWAGE TREATMENT SYSTEMS**
  - Plans installation of sewage treatment systems
  - Installs sewage treatment system components
  - Tests sewage treatment systems and components
  - Services sewage treatment systems and components
- **C - 10 INSTALLS, TESTS AND SERVICES INTERIOR DRAINAGE, WASTE AND VENT (DWV) SYSTEMS**
  - Sizes pipe for interior drainage, waste and vent (DWV) systems
  - Installs underground piping and components for interior drainage, waste and vent (DWV) systems
  - Installs piping and components for interior drainage, waste and vent (DWV) systems above-ground
  - Tests interior drainage, waste and vent (DWV) systems
  - Services piping and components for interior drainage, waste and vent (DWV) systems

## **D - INSTALLS, TESTS AND SERVICES WATER SERVICE AND DISTRIBUTION**

- **D-11 INSTALLS, TESTS AND SERVICES WATER SERVICES**
  - Sizes pipe for water services
  - Installs piping for water services
  - Installs water service equipment
  - Tests water service piping and components
  - Services water services
- **D-12 INSTALLS, TESTS AND SERVICES POTABLE WATER DISTRIBUTION SYSTEMS**
  - Sizes piping and equipment for potable water distribution systems
  - Installs piping for potable water distribution systems
  - Installs potable water distribution equipment
  - Installs and uses cross-connection control devices and methods
  - Tests potable water distribution systems
  - Services potable water distribution systems
- **D-13 INSTALLS, TESTS AND SERVICES PRESSURE SYSTEMS**
  - Sizes pressure systems
  - Installs piping for pressure systems
  - Installs equipment and components for pressure systems
  - Tests pressure systems
  - Services pressure systems

## **E - INSTALLS, TESTS AND SERVICES FIXTURES, APPLIANCES AND WATER TREATMENT SYSTEMS**

- **E-14 INSTALLS, TESTS AND SERVICES PLUMBING FIXTURES AND APPLIANCES**
  - Installs fixture supports
  - Installs plumbing fixtures and appliances
  - Tests plumbing fixtures and appliances
  - Services plumbing fixtures and appliances

- **E-15 INSTALLS, TESTS AND SERVICES WATER TREATMENT EQUIPMENT**
  - Sizes water treatment equipment
  - Installs water treatment equipment
  - Tests water treatment equipment
  - Services water treatment equipment

## **F - INSTALLS, TESTS, AND SERVICES LOW PRESSURE STEAM AND HYDRONIC HEATING AND COOLING SYSTEMS**

- **F-16 INSTALLS, TESTS AND SERVICES LOW PRESSURE STEAM SYSTEMS**
  - Sizes piping and components for low pressure steam systems
  - Installs piping and components for low pressure steam systems
  - Tests piping and components for low pressure steam systems
  - Services piping and components for low pressure steam systems
- **F-17 INSTALLS, TESTS AND SERVICES HYDRONIC HEATING AND COOLING PIPING SYSTEMS**
  - Sizes piping and components for hydronic systems
  - Installs piping and components for hydronic systems
  - Tests piping and components for hydronic systems
  - Services piping and components for hydronic systems
- **F-18 INSTALLS, TESTS AND SERVICES HYDRONIC HEATING AND COOLING GENERATING SYSTEMS**
  - Installs hydronic heating generating systems
  - Installs hydronic cooling generating systems
  - Tests hydronic heating and cooling generating systems
  - Services hydronic heating and cooling generating systems
- **F-19 INSTALLS, TESTS AND SERVICES HYDRONIC SYSTEM CONTROLS AND TRANSFER UNITS**
  - Installs hydronic system controls
  - Installs hydronic transfer units
  - Tests hydronic system controls and transfer units
  - Services hydronic system controls and transfer units

## **G - INSTALLS, TEST AND SERVICES FIRE PROTECTION SYSTEM (NCC)**

- Topic is not common core. It is **not** evaluated on the Red Seal examination and it is outside the scope of work for a Plumber in Saskatchewan. Content added from RSOS for reference purposes only.

## **H - INSTALLS TESTS AND SERVICES SPECIALIZED SYSTEMS**

- **H-22 INSTALLS, TESTS AND SERVICES SPECIALIZED SYSTEMS**
  - Installs piping for specialized systems
  - Installs equipment and components for specialized systems
  - Tests specialized systems
  - Services specialized systems
- **H-23 INSTALLS, TESTS AND SERVICES PROCESS PIPING SYSTEMS**
  - Installs piping for process piping systems
  - Installs equipment and components for process piping systems
  - Tests process piping systems
  - Services process piping systems

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