PIPE – Piping Trades Foundation Program

Trades

Effective Term & Year: Fall 2022
Program Outline Review Date: 2022-04-01

Program Area: Trades Foundation Training

Description:

This comprehensive 24 week Piping Trades Foundation (pre-apprenticeship) program provides students with the skills, knowledge and training necessary for entry level positions on industrial projects or in manufacturing plants and covers the program competencies for Level 1 of the Apprenticeship Programs for the following trades: Steamfitter/Pipefitter; Plumber; Sprinkler System Installer; Domestic/Commercial Gasfitter B. Content covered includes preparing and assembling piping components, plumbing components, sprinkler system components and installing and servicing fuel systems. The program is taught through regular lectures and demonstrations, and students are given extensive practical training in a shop setting. Safe work habits are emphasized, reinforced and practiced throughout the program.

Credentials Granted:

Upon successful completion of the 24 week Piping Foundation program, students receive:

- Level 1 Technical Training credit from SkilledTradesBC of the 4 Level Steamfitter/Pipefitter; Plumber; Sprinkler System Installer; Domestic/Commercial Gasfitter B Apprenticeship programs
- 375 Work-based Training hours for Steamfitter/Pipefitter; Plumber; Sprinkler System Installer
- 180 Work-based Training hours for Domestic/Commercial Gasfitter B
- Certificate of Completion – SkilledTradesBC
- College of the Rockies Certificate

Delivery Methods: On-Campus (Face-to-Face)

Program Duration: 24 weeks

Instructional Activity and Hours:

Activity	Hours
Instructional Hours (hrs/wk)	
Directed Studies (hrs/wk)	
Total (hrs/wk)	
Total Program Hours	

Content Weighting:

Activity	Percentage
Theory	
Practical Skills	

Admission Requirements:

Secondary school graduation or equivalent, or completion of a College of the Rockies assessment to an acceptable level.

Highly Recommended Admission Prerequisites:

The following education is highly recommended for student success within the program:

- Algebra 11, Apprenticeship and Workplace Math 11, Trades Mathematics 11, or equivalent
- English 12
- Physics 11 or Science and Technology 11

Flexible Assessment:

Credit can 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:

Pipe Trades Handbook, IPT Publishing
WorkSafe BC Regulations Online
Student Materials Packag

Program Competencies and Technical Training Content:

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

PIPE 101 Safe Work Practices

- Control Workplace Hazards
- Describe and use information in the OHS Regulation and WorkSafeBC Standards
- Describe and use WHMIS and Hazardous Materials Safety
- Use Personal Protective Equipment
- Practice Fire Prevention Procedures

PIPE 102 Use Tools and Equipment

- Use Hand Tools
- Use Portable Power Tools
- Use Stationary Power Tools
- Use Measuring and Levelling Tools
- Use Cutting, Brazing and Soldering Equipment
- Use Ladders, Scaffolds and Elevated Work Platforms
- Use Rigging and Hoisting Equipment

PIPE 103 Organize Work

- Use Mathematics and Science (including electricity)
- Read Drawings and Specifications
- Use Codes, Regulations and Standards
- Use Manufacturer and Supplier Documentation

PIPE 104 Prepare and Assemble Piping Components

- Join Pipe
- Select and Install Valves
- Select and Install Fittings
- Describe Methods of Penetrating Structures

PIPE 105 Prepare and Assemble Plumbing Components

- Install Pipe
- Install Valves
- Install Fittings
- Penetrate Structures
- PIPE 106 Prepare and Assemble Sprinkler Components
- Install Pipe and Fittings
- Install Valves
- Penetrate Structures

PIPE 107 Install and Service Fuel Systems

- Describe the Gas Delivery System
- Install Piping and Tubing Systems

Evaluation and Assessment:

THEORY WEIGHTING	PRACTICAL WEIGHTING
40%	60%

Pass Requirements:

Students must obtain a mark of 70% or better in theory and practical projects to successfully complete the program.
Students must maintain an acceptable level of attendance (as describe in the College Policies and Procedures), 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
- Steel-toed work boots
- Safety glasses
- Coveralls
- Reference materials
- Gloves

Workplace Health and Safety Courses:

Transportation of Dangerous Goods (TDG: PVHE-701)

Workplace Hazardous Material Information System (WHMIS: PVHE-700)

Basic First Aid – (PVHE-100)

Workplace Health and Safety Courses Grade Scheme:

COM	NCG
Completed to the minimum defined standard	No credit granted – less than minimum defined standard

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 2.4.8 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.