GASB1 – Gasfitter B Level 1

Trades

Effective Term & Year: Winter 2025
Program Outline Review Date: 2030-09-01

Program Area: Trades Apprenticeship Training

Description:

This 10-week program delivers the skills, knowledge and training required for Level 1 of Gasfitter Level B. Program competencies include theory and practical techniques in the following areas: fundamentals of gas utilization; electrical concepts related to gas fitting; gas-fired appliance systems, and gas-fired systems. Safe work practices are important in this trade and are emphasized, reinforced and practiced throughout the program.

Credentials Granted:

Credit from SkilledTradesBC for Level 1 Gasfitter B Technical Training.

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

Program Duration: 10 weeks

Instructional Activity and Hours:

Activity	Hours
Instructional Hours (hrs/wk)	28
Directed Studies (hrs/wk)	2
Total (hrs/wk)	30
Total Program Hours	300

Content Weighting:

Activity	Percentage
Theory	85
Practical Skills	15

Admission Requirements:

Sponsored apprentice.

Highly Recommended Admission Prerequisites:

The following education is recommended for apprentices entering this occupation. These are not prerequisites but rather a desired level of skill or knowledge that will contribute to success in the industry.

Grade 12 diploma or equivalent

With: English Studies 12; Foundations of Mathematics 11; Physics 11

Due to the high level of skill required in Math and Physics for the Gasfitter B program, industry and instructors strongly advise apprentices to upgrade their Math and Physics skills prior to registration for technical training in this program.

Prior Learning and Recognition:

Credit cannot be awarded for this program through Prior Learning Assessment and Recognition.

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:

CAN/CSA B149.1 current

CAN/CSA B 149.2 current

CAN/CSA C22.1 current

Safety Standards General Regulations

Gas Safety Regulation

Program Competencies and Technical Training Content:

GASB 101 Use common occupational skills

- Control workplace hazards
- Use drawings and specifications, common tools and access equipment
- Use technical instruments and testers, codes, regulations, and standards
- Organize work and maintain records

GASB 102 Apply Fundamentals of Gas Utilization

- Apply gas properties, combustion theory, draft theory
- Interpret heating, cooing and process systems
- Apply knowledge of mechanical safety devices

GASB 103 Apply Electrical concepts

- Use principles of electricity and electronics
- Use electrical wiring diagrams and schematics and the Canadian Electrical Code
- Apply single and three phase motor theory
- Apply wiring practices

GASB 104 Plan Gas-Fired Appliance system Installations

- Size piping and tubing systems
- Select regulators, valves and valve train components
- Select gas-fired appliances, burners, flame safeguards and electrical components
- Plan a project

GASB 105 Install Gas-fired systems

- Install piping and tubing systems, regulators, valves and valve train components and air supply systems

GASB 106 Commission Gas-fired Appliances and Equipment

- Commission fuel/air delivery systems

Evaluation and Assessment:

Gasfitter B Level 1

COTR COURSE	SUBJECT COMPETENCIES	THEORY WEIGHTING	PRACTICAL WEIGHTING
GASB 101	Use Common Occupational Skills	2%	0%
GASB 102	Apply Fundamentals of Gas Utilization	10%	0%
GASB 103	Apply Electrical Concepts	33%	0%
GASB 104	Plan Gas-Fired Appliance System Installations	27%	100%
GASB 105	Install Gas-Fired Systems	3%	0%
GASB 106	Commission Gas-Fired Appliances	25%	0%
	Total	**100%**	**100%**
In-school theory & practical subject competency weighting		85%	15%
Final in-school percentage score Apprentices must achieve a minimum 70% for the final in-school mark to be eligible to write the Gasfitter B Standardized Level Exam		**IN-SCHOOL %**	
In-School Percentage Score Combined theory and practical subject competency multiplied by		80%	
Standardized Level Exam Percentage Score The exam score is multiplied by		20%	
Final Percentage Score		**FINAL%**	

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 2.1.4 Course Audit
- Policy 2.4.1 Credential Framework
- Policy 2.4.3 Students with Documented Disabilities
- Policy 2.4.4 Student Rights, Responsibilities and Conduct
- Policy 2.4.8 Academic Performance
- Policy 2.4.9 Student Feedback and Concerns
- Policy 2.4.11 Storage of Academic Works
- Policy 2.5.3 Student Appeal
- Policy 2.5.5 Prior Learning Assessment and Recognition (PLAR)

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.