

Course Description**BCV0596 | Plumbing Applications | 8.00 credits**

The Plumbing Applications course provides comprehensive training in various aspects of plumbing, including optional modules for specialized topics. Participants will learn about the installation process of medical gas systems and gain insights into the workings of Liquid Propane Gas (LPG) and natural gas systems. The core curriculum focuses on repairing, servicing, and maintaining plumbing systems, with optional modules covering topics such as connecting residential plumbing to municipal sewer laterals, plumbing applications for swimming pools and spas, identification of solar systems and components, adaptation of solar system designs, conducting solar site assessments, and maintenance and troubleshooting of solar thermal systems. This course equips students with versatile skills and knowledge for diverse plumbing applications.

Course Competencies

Competency 1: The student will demonstrate knowledge and skills in the installation processes of various specialized plumbing systems, including medical gas systems and gas systems (LPG and natural gas) by:

1. Understanding the installation protocols for medical gas systems to ensure compliance with health and safety regulations
2. Analyzing the operational principles of Liquid Propane Gas (LPG) and natural gas systems to facilitate safe and effective installations
3. Practicing installation techniques for specialized plumbing systems through hands-on exercises and simulations to enhance practical skills

Competency 2: The student will gain expertise in repairing, servicing, and maintaining various plumbing systems, ensuring they function optimally and efficiently by:

1. Diagnosing common plumbing issues to develop effective repair strategies for various plumbing systems
2. Conducting routine maintenance procedures on plumbing systems to prolong their lifespan and prevent future issues
3. Implementing service techniques for different plumbing components, enhancing overall system reliability and performance

Competency 3: The student will acquire versatile skills in diverse plumbing applications, including connections to municipal sewer laterals, swimming pool and spa plumbing, and solar thermal systems by:

1. Connecting residential plumbing to municipal sewer laterals to ensure compliance with local codes and standards
2. Identifying solar systems and components to assess their applications and benefits within the plumbing industry
3. Conducting solar site assessments and adapting solar system designs to optimize performance in plumbing applications

Learning Outcomes:

1. Communicate effectively using listening, speaking, reading, and writing skills
2. Solve problems using critical and creative thinking and scientific reasoning
3. Formulate strategies to locate, evaluate, and apply information