

# Plumbing NC I

## Course Description

PLUMBING is design to equip individuals with operational skills in Plumbing, such as prepare plumbing layout, make piping joints and connections, perform minor construction works and install and assemble single plumbing unit.

### Nominal Duration

- Basic Competencies 68 hrs.
- Common Competencies 20 hrs.
- Core Competencies 122 hrs.
- Institutional Assessment 8 hrs.

**TOTAL 218 hrs.**

A person who has achieved this qualification is competent to be:  
**Plumber**

### TRAINEE ENTRY REQUIREMENTS:

- At least 15 years of age
- At least Junior High School (Grades 9 & 10) level or graduate
- Physically and mentally fit
- With good moral character
- Can communicate in English. Both Oral and Written
- Can perform basic mathematical computations
- Must undergo Career Profiling and Trainability Evaluation

TWC Training is guided by the ten (10) basic principles of Competency-Based Training (CBT) delivery.

1. The training is based on curriculum developed from the competency standards;
2. Learning is modular in its structure;
3. Training delivery is individualized and self-paced;
4. Training is based on work that must be performed;
5. Training materials are directly related to the competency standards and the curriculum modules;
6. Assessment is based in the collection of evidence of the performance of work to the industry required standard;
7. Training is based on both on and off-the-job components;
8. Allows for recognition of prior learning (RPL) or current competencies;
9. Training allows for multiple entry and exit; and
10. Approved training programs are Nationally Accredited

## Course Structure

### BASIC COMPETENCIES

Unit of Competency	Module Title	Learning Outcomes	Nominal Duration
• Receive and respond to workplace communication (communicate clearly)	• Receiving and responding to workplace communication (communicate clearly)	<ul style="list-style-type: none"> <li>• Follow routine spoken messages</li> <li>• Perform workplace duties following written notices</li> <li>• Complete relevant work-related documents</li> <li>• Follow routine spoken messages</li> <li>• Perform workplace duties following written notices</li> </ul>	20 hrs
• Work with others (collaborate with others in work group activities)	<ul style="list-style-type: none"> <li>• Observing gender sensitivity in the workplace</li> <li>• Working with others (collaborate with others in work group activities)</li> </ul>	<ul style="list-style-type: none"> <li>• Discuss the differences between sex and gender</li> <li>• Discuss gender identity and sexual orientation</li> <li>• Analyze the different manifestations of gender inequality in TVET, in society and in enterprises</li> <li>• Discuss gender and rights based approach to sexual and reproductive health including HIV-AIDS awareness and prevention</li> <li>• Develop effective workplace relationship</li> <li>• Contribute to work group activities</li> <li>• Work as team member</li> <li>• Develop effective workplace relationship including personal values and beliefs related to gender</li> <li>• Contribute to work group activities</li> </ul>	12 hrs
• Demonstrate work values	<ul style="list-style-type: none"> <li>• Demonstrating work values and gender sensitivity</li> <li>• Demonstrating work values</li> </ul>	<ul style="list-style-type: none"> <li>• Describe the purpose of work/enterprise</li> <li>• Identify and deal with ethical problems</li> <li>• Apply work/entrepreneurship values and gender/ethics sensitivity</li> <li>• Maintain integrity of conduct in the workplace</li> <li>• Define the purpose of work</li> <li>• Apply work values/ethics</li> <li>• Deal with ethical problems</li> <li>• Maintain integrity of conduct in the workplace</li> </ul>	4 hrs
• Practice housekeeping procedures	• Practicing housekeeping procedures	<ul style="list-style-type: none"> <li>• Sort and remove unnecessary items</li> <li>• Arrange items</li> <li>• Maintain work area, tools and equipment</li> <li>• Follow standardized work process and procedures</li> <li>• Perform work spontaneously</li> </ul>	24 hrs

## Course Structure

### COMMON COMPETENCIES

Unit of Competency	Module Title	Learning Outcomes	Nominal Duration
• Prepare construction materials and tools	• Preparing construction materials and tools	<ul style="list-style-type: none"> <li>• Identify Materials</li> <li>• Requisition Materials</li> <li>• Receive and inspect materials</li> </ul>	4 hrs
• Observe procedures, specifications and manuals of Instructions	• Observing procedures, specifications and manuals of instructions	<ul style="list-style-type: none"> <li>• Identify and access specification/ manuals</li> <li>• Interpret manuals</li> <li>• Apply information in manual</li> <li>• Store manuals</li> </ul>	8 hrs
• Perform mensurations and calculation	• Performing mensurations and calculation	<ul style="list-style-type: none"> <li>• Select measuring instruments</li> <li>• Carry out measurements and calculations</li> </ul>	4 hrs
• Maintain tools and equipment	• Maintaining tools and equipment	<ul style="list-style-type: none"> <li>• Check condition of tools and equipment</li> <li>• Perform basic preventive maintenance</li> <li>• Store tools and equipment</li> </ul>	4 hrs

### CORE COMPETENCIES

Unit of Competency	Module Title	Learning Outcomes	Nominal Duration
• Prepare plumbing layout	• Preparing plumbing layout	<ul style="list-style-type: none"> <li>• Prepare tools and materials</li> <li>• Perform stub-out / roughing-in</li> <li>• Clean up work area and maintain tools</li> </ul>	30 hrs
• Make piping joints and connections	• Making piping joints and connections	<ul style="list-style-type: none"> <li>• Fit-up joint and fittings for PVC pipe</li> <li>• Perform threaded pipe joints and connections</li> <li>• Caulk cast iron (CI) pipes and fittings</li> </ul>	30 hrs
• Perform minor construction works	• Performing minor construction works	<ul style="list-style-type: none"> <li>• Perform piping layouts</li> <li>• Cut pipes through walls and floors</li> </ul>	30 hrs
• Install and assemble single plumbing unit	• Installing and assembling single plumbing unit	<ul style="list-style-type: none"> <li>• Prepare plumbing works</li> <li>• Install pipes and fittings</li> <li>• Install hot and cold water supply</li> <li>• Install/assemble plumbing fixtures</li> </ul>	32 hrs

# Plumbing NC II

## Nominal Duration

• Basic Competencies	68 hrs.
• Common Competencies	20 hrs.
• Core Competencies	160 hrs.
• Institutional Assessment	8 hrs.
<b>TOTAL</b>	<b>256 hrs.</b>

A person who has achieved this qualification is competent to be:  
**Plumber II**

## ADDITIONAL TRAINEE ENTRY REQUIREMENTS:

- Holder of Plumbing NC I or relevant industry experience (plumbing works) for a minimum of 2 years in all of the following:
  - Prepare plumbing layout
  - Make piping joints and connections
  - Perform minor construction works
  - Install and assemble single plumbing unit

## Course Structure

### BASIC COMPETENCIES

Unit of Competency	Module Title	Learning Outcomes	Nominal Duration
• Participate in workplace communications	• Participating in workplace communications	<ul style="list-style-type: none"> <li>• Obtain and convey workplace information</li> <li>• Participate in workplace meetings and discussions applying gender-fair language</li> <li>• Complete relevant work-related documents</li> <li>• Follow routine spoken messages</li> <li>• Perform workplace duties following written notices</li> </ul>	20 hrs
• Work in a team environment	• Observing gender sensitivity in the workplace	<ul style="list-style-type: none"> <li>• Discuss the differences between sex and gender</li> <li>• Discuss gender identity and sexual orientation</li> <li>• Analyze the different manifestations of gender inequality in TVET, in society and in enterprises</li> <li>• Discuss gender and rights based approach to sexual and reproductive health including HIV-AIDS awareness and prevention.</li> </ul>	12 hrs
	• Working in a team environment	<ul style="list-style-type: none"> <li>• Describe team role and scope</li> <li>• Identify own role and responsibility within team</li> <li>• Work as team member</li> <li>• Develop effective workplace relationship including personal values and beliefs related to gender</li> <li>• Contribute to work group activities</li> </ul>	4 hrs
• Practice career professionalism	• Demonstrating work values and gender sensitivity	<ul style="list-style-type: none"> <li>• Describe the purpose of work/enterprise</li> <li>• Identify and deal with ethical problems</li> <li>• Apply work/entrepreneurship values and gender/ethics sensitivity</li> <li>• Maintain integrity of conduct in the workplace</li> </ul>	4 hrs

## Course Structure

### BASIC COMPETENCIES

Unit of Competency	Module Title	Learning Outcomes	Nominal Duration
• Practice career professionalism	• Practicing career professionalism	<ul style="list-style-type: none"> <li>• Integrate gender perspectives with personal and organizational goals</li> <li>• Set and meet work priorities</li> <li>• Maintain professional growth and development</li> </ul>	4 hrs
• Practice occupational health and safety procedures	• Practicing occupational health and safety procedures	<ul style="list-style-type: none"> <li>• Identify hazards and risks including those from climate change</li> <li>• Evaluate hazards and risks including those from climate change</li> <li>• Control hazards and risks including those from climate change</li> <li>• Maintain occupational health and safety awareness including women's issues/ concerns relative to OSH</li> </ul>	24 hrs

### COMMON COMPETENCIES

Unit of Competency	Module Title	Learning Outcomes	Nominal Duration
• Prepare construction materials and tools	• Preparing construction materials and tools	<ul style="list-style-type: none"> <li>• Identify Materials</li> <li>• Requisition Materials</li> <li>• Receive and inspect materials</li> </ul>	4 hrs
• Observe procedures, specifications and manuals of Instructions	• Observing procedures, specifications and manuals of instructions	<ul style="list-style-type: none"> <li>• Identify and access specification/ manuals</li> <li>• Interpret manuals</li> <li>• Apply information in manual</li> <li>• Store manuals</li> </ul>	8 hrs
• Perform measurements and calculation	• Performing measurements and calculation	<ul style="list-style-type: none"> <li>• Select measuring instruments</li> <li>• Carry out measurements and calculations</li> </ul>	4 hrs
• Maintain tools and equipment	• Maintaining tools and equipment	<ul style="list-style-type: none"> <li>• Check condition of tools and equipment</li> <li>• Perform basic preventive maintenance</li> <li>• Store tools and equipment</li> </ul>	4 hrs

### CORE COMPETENCIES

Unit of Competency	Module Title	Learning Outcomes	Nominal Duration
• Prepare estimation of materials for multiple plumbing units	• Preparing estimation of materials for multiple plumbing units	<ul style="list-style-type: none"> <li>• Study approved plumbing plan</li> <li>• Estimate and finalize materials take-off</li> </ul>	56 hrs
• Perform multiple plumbing units installation and assemblies	• Performing multiple plumbing units installation and assemblies	<ul style="list-style-type: none"> <li>• Prepare materials for drainage, sanitary, vent and waterline layout work</li> <li>• Install pipes and fittings for drainage, sanitary vent and waterline layout</li> <li>• Install cold water system and multi-point water heater for hot - water supply lines</li> <li>• Install building drains, sewer and ventilation</li> <li>• Mount and lay out plumbing fixtures and accessories</li> </ul>	56 hrs
• Conduct pipe leak testing	• Conducting pipe leak testing	<ul style="list-style-type: none"> <li>• Prepare for conducting pipe leak testing</li> <li>• Perform pipe leak testing</li> </ul>	24 hrs
• Perform plumbing repair and maintenance	• Performing plumbing repair and maintenance	<ul style="list-style-type: none"> <li>• Repair defective pipes, fittings and plumbing fixtures</li> <li>• Clear clogged pipes and drains</li> </ul>	24 hrs



## TESDA Women's Center

### VISION

*"TESDA Women's Center is the lead TVET Institution of excellence in empowering Filipino women."*

### MISSION

*"As the lead TVET Institution of excellence in women empowerment, TESDA Women's Center advocates and provides programs and services geared towards quality-assured, inclusive and gender-fair TVET."*

## PLUMBING NC I & II



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