

SYLLABUS FOR PLUMBING & SANITARY TRADE

Duration at Skills Training Institute (Spread in three months)	: 600 Hrs
1. Introduction to ITI	: 3 Hrs
2. Introduction to the Trade	: 3 Hrs
3. Introduction to Trade Glossary	: 6 Hrs
4. Introduction to Tools & Equipment	: 12 Hrs
* Hand tools of the trade	
* Stock and dies	
* Pipe vice	
* Bench vice	
* Blow lamp stove	
* Ferrule m/c	
* Bending m/c	
5. Documentation	: 24 Hrs
* Glossary of terms	
* Basic engineering drawings / sketches	
* Info sheets / job cards	
* Time sheets	
* Record book / log book	
* Store requisition	
6. Basic Materials	: 16 Hrs
* Galvanized pipes	
* Cast iron pipes	
* PVC pipe	
* SW pipes	
* Fittings	
* Fixtures	
* Solder / Lead	
7. Testing	: 16 Hrs
* Water test	
* Pressure test	
* Smoke test	
* Ball test	

- 8. Safety : 24 Hrs**
- * Health & Safety
 - * Eye protection
 - * Hand & Foot protection
 - * Overall personal safety
 - * Moving
 - * Lifting
 - * Carrying
 - * Stacking
 - * Working at heights (Ladders / scaffold)
 - * Electricity
- 9. Practice Modules : 348 Hrs**
- F1. Taps & Valves : 24 Hrs
- * Understanding working principles
 - * Understanding methods of testing
 - * Use of basic tools and bench vice
 - * Selection of taps and valves
 - * Dismantling taps & valves
 - * Inspecting glands, washer
 - * Assembling taps and valves in position
 - * Ensuring no leaks when tested
 - * Safety
 - * Site tidiness
- F2. Cutting / Threading / Bending / GI Pipes : 48 Hrs
- * Use of hand tools
 - * Use of cutting tools
 - * Use of bending machine
 - * Use of pipe Dies & Vice
 - * Lubrication
 - * Understanding basic sketches & drawing
 - * Mark out and cut to size
 - * Threading and bending
 - * Awareness of tolerance
 - * Safety
 - * Site tidiness
- F3. Jointing / Assembling GI Pipes : 48 Hrs
- * Understanding types of pipes & fittings
 - * Understanding methods of joining
 - * Use of chain wrench

- * Interpretation of sketches & drawings
- * Joining and assembling GI pipes with supplied fittings
- * Importance of line & level
- * Awareness of tolerance
- * Safety
- * Site tidiness

F4. PVC Pipe Bending : 24 Hrs

- * Understanding types of PVC pipes and fittings
- * Understanding methods of bending
- * Use blow lamp & flame control
- * Interpretation of sketches & drawings
- * Mark out and cut to size
- * Bend PVC pipes
- * Importance of line & level
- * Awareness of tolerance
- * Safety
- * Site tidiness

F5. PVC Jointing : 24 Hrs

- * Understanding types of PVC pipe joints
- * Understanding methods of jointing
- * Use of hand tools
- * Use of beveling reamer
- * Use of blow lamp & flame control
- * Application of solvents
- * Assembly methods
- * Interpretation of sketches & drawings
- * Join PVC pipe
- * Importance of line & level
- * Awareness of tolerance
- * Safety
- * Site tidiness

F6. S.W. Pipe laying / jointing : 18 Hrs

- * Understanding types of SW pipe
- * Understanding methods of laying / jointing
- * Use of hand tools
- * Use of sight rails
- * Assembly methods
- * Interpretation of sketches & drawings
- * Importance of gradient / alignment
- * Understanding self cleansing gradients
- * Join SW pipe
- * Testing methods
- * Awareness of tolerance
- * Safety
- * Site tidiness

- F7. Cast Iron Cutting / Jointing : 18 Hrs
- * Understanding methods of cutting
 - * Use of hand tools
 - * Interpretation of sketches & drawings
 - * Importance of alignment
 - * Understanding methods of jointing
 - * Use of chain wheel
 - * Introduction to gasket
 - * Handling lead
 - * Testing methods
 - * Awareness of tolerance
 - * Safety
 - * Site tidiness
- F8. Alkathene flanging / Jointing : 18 Hrs
- * Understanding Alkathene Flange
 - * Forming tools
 - * Assembly methods
 - * Types of fittings
 - * Connecting Alkathene to G.I. pipe
 - * Interpretation of sketches & drawings
 - * Importance of alignment
 - * Understanding methods of jointing
 - * Testing methods
 - * Awareness of tolerance
 - * Safety
 - * Site tidiness
- F9. Making service connections : 24 Hrs
- * Understanding service connections
 - * Understanding ferrules, water meter
 - * Introduction local authority by-laws
 - * Connect cast iron main with domestic service
 - * Using ferrule, valve and water meter
 - * Testing methods
 - * Safety
 - * Site tidiness
- F10. Connecting house sewer to main : 24 Hrs
- * Understanding sewer connection to main
 - * Understanding interceptor traps
 - * Introduction local authority by-laws
 - * Connect interceptor manhole with main sewer using SW pipes
 - * Testing methods
 - * Safety
 - * Site tidiness

F11. Fixing Sanitary Fixtures	: 24 Hrs
<ul style="list-style-type: none"> * Understanding, handling, lifting sanitary fixtures * Care in fitting and leveling * Introduction local authority by-laws * Fix low level water closet * Connect to soil stack, seal connections * Testing methods * Safety * Site tidiness 	
F12. Installing Water Pump, connecting supply pipe	: 24 Hrs
<ul style="list-style-type: none"> * Understanding handling water pump * Understanding working principle of Water pump and foot valve * Methods of connections * Connect pump to pump base * Connect supply pipes, foot valves, etc. * Care in fitting and leveling * Introduction local authority by-laws * Testing methods * Safety * Site tidiness 	
F13. Skill Consolidation Installation Work Project	: 48 Hrs
<ul style="list-style-type: none"> * Interpretation of working drawings * Types of sanitary fixtures and appliances * Storage cistern, tanks * Understanding local authority by-laws * Distribution water supply pipe connections * Position install sanitary fixtures and appliances * Testing methods * Safety * Site tidiness 	
10. Introduction to Trade on Job Site	: 64 Hrs
11. Revision	: 60 Hrs
12. Final Testing & Evaluation	: 24 Hrs