

CONSTRUCTION SKILLS TRAINING INSTITUTE

BASIC COURSE SYLLABUS

MASONRY



**CONSTRUCTION GROUP
LARSEN & TOUBRO LIMITED**

SYLLABUS FOR BASIC MASONRY TRAINING**CONTENTS**

1. Introduction to L&T / ECCG
2. Introduction to the Trade
3. Introduction to Trade Glossary
4. Introduction to Tools & Equipment
5. Documentation
6. Materials
7. Testing
8. Safety
9. Practice Modules
10. Introduction to Trade on Job Site
11. Overall Revision
12. Final Testing

SYLLABUS FOR BASIC MASONRY TRAINING

Duration at Skills Training Institute (Spread in three months)	: 600 Hrs
1. Introduction to L&T / ECGG	: 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	
• Learning to use the Basic Tools	
• Learning to care of Basic Tools	
• Basic related equipment's of the Trade	
• Learning to use and care related equipments's	
5. Documentation	: 24 Hrs
• Basic Working Drawings introduction	
• Interpreting Site Drawings and Details	
• Taking of dimensions from scale drawings	
• Determining the accuracy of dimensions given on scale Drawings	
• Sketches	
• Interpreting line sketches and details	
• Information Sheets	
• Interpreting handouts	
• Estimation of Basic Tools & Materials	

- Record Sheet
 - Interpreting productivity chart
 - Interpreting Store request
 - Reporting damages & Wastage

 - 6. Basic Materials : 16 Hrs**
 - Mortars
 - Introduction
 - Concrete
 - Coarse aggregates
 - Fine aggregates
 - Cement
 - Water
 - Bricks
 - Introduction to different types and Textures
 - Selection of Bricks
 - Understanding uses
 - Cutting Bricks in different methods sizes
 - Sills & Lintels
 - In-situ concrete lintels casting
 - Bedding pre-cast sills and lintels
 - Rubble
 - Introduction to Random Rubble masonry (Uncoursed)

 - 7. Testing : 16 Hrs**
 - Water Test
 - Material Test
 - Setting Out
 - Leveling
 - Basic Marking Out
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- 8. Safety : 24 Hrs**
- Health & Safety
 - Eye protection
 - Tidiness on Site
 - Personal safety
 - Moving
 - Lifting
 - Carrying
 - Working at Heights (Ladders / scaffold)
- 9. Practice Modules : 348 Hrs**
- **F1. Mixing mortar : 36 Hrs**
 - Proportion mortar ingredients for specific mixes
 - Type of Sand, Cement, Lime, Water, Mixing procedures
 - Mix mortar manually with hand tools and equipment
 - Mix mortar with a power mixer
 - Lifting, carrying and moving
 - Site tidiness
 - Correct Safety practices
 - **F2. Building of Brick Wall Stretcher : 24 Hrs**
 - Layout half brick wall in stretcher Bond
 - Checking of alignment, line level
 - Pointing of joints
 - Tidiness of surface
 - Curing and Importance

- **F3.** Building 1 Brick Wall (English Bond) : 24 Hrs
 - Arrangement of Materials
 - Basic marking out
 - Bonding
 - Tolerances
 - Safety
 - Site Tidiness

- **F4.** Building 1 Brick Wall using Right Angle English Bond : 32 Hrs
 - Arrangement of Materials
 - Basic marking out
 - Bonding
 - Tolerances
 - Safety
 - Site Tidiness

- **F5.** Building 1½ Wall Corner (English Bond) : 12 Hrs
 - Arrangement of Materials
 - Basic marking out
 - Bonding
 - Tolerances
 - Safety
 - Site Tidiness

- **F6.** Building 1 x 1½ Brick Wall Square Junction English Bond : 12 Hrs
 - Arrangement of Materials
 - Basic marking out
 - Bonding
 - Tolerances
 - Safety
 - Site Tidiness

- **F7. Building 1 Brick Wall Corner** : 8 Hrs
Flemish Bond
 - Arrangement of Materials
 - Basic marking out
 - Bonding
 - Tolerances
 - Safety
 - Site Tidiness

- **F8. Building 1 Brick Wall Sq. Junction** : 8 Hrs
Flemish Bond
 - Arrangement of Materials
 - Basic marking out
 - Bonding
 - Tolerances
 - Safety
 - Site Tidiness

- **F9. Skill Consolidation, Fixing Window & Door Frames** : 36 Hrs
 - Reading layout plans
 - Handling Frames
 - Fixing Frames
 - Protection of Frames
 - Checking Tolerances
 - Taking remedial action
 - Stores requisition
 - Information Sheet
 - Working at Heights, Ladders & Scaffold

- **F10. Plastering** : 36 Hrs
 - Introduction to different types of Plastering
 - Surface preparation
 - Fixing of accessories
 - Importance of level pads
 - Application of different coats
 - Curing and importance
 - Protection of surface

- **F11. Construction of Attached Piers** : 32 Hrs
 - Interpreting drawings
 - Cutting, preparing squint bricks
 - Bonding methods
 - Use of gauge
 - Plumbing points
 - Setting out

- **F12. Construction of Detached Piers** : 32 Hrs
 - Interpreting drawings
 - Cutting, preparing squint bricks
 - Bonding methods
 - Use of gauge
 - Plumbing points
 - Setting out

- **F13. Foundation work up to D.P.C** : 32 Hrs
 - Setting out
 - 3,4,5 method, interpreting simple sketches/drawings
 - Building bricks work below D.P.C
 - Understanding simple shoring

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- **F14. Building Junction Manhole** : 12 Hrs
 - Interpreting simple drawing
 - Fixing pipes
 - Forming Channels
 - Positioning steps
 - Fixing pre-cast cover
 - Internal/external rendering
 - **F15. Random Rubble Wall (Un coursed)** : 12 Hrs
 - Introduction to cutting and chipping of random rubble
 - Basic principles of avoiding continuous joints
- 10. Introduction to Trade on Job Site** : 64 Hrs
- 11. Revision** : 60 Hrs
- 12. Final Testing & Evaluation** : 24 Hrs