

## **Program information**

### **Program Title Block & Brick Mason**

#### **Introduction**

The competency based curriculum guide for block & brick mason is designed to produce graduates equipped with knowledge, skills and attitudes required by the technicians having this occupation especially for the foreign employment. Successful graduates of the program who completed all modules will be capable of building interior or and exterior walls of new ho0uses or large projects like stadiums, shopping centers, high rise apartments and office block. Graduates of this program typically hold job as “Mason”.

The features of this curriculum are:

1. The curriculum is designed on modular basis which gives enough flexibility in implementation.
2. The curriculum focuses practical experiences. H however, the minimum theoretical knowledge which directly affects the task performance is induded.

#### **Aims**

The aim of this training is to provide competent and confident b lock & brick mason who can provide effective services to the foreign construction industries.

#### **Duration**

The total duration of this course is 225 hrs.

#### **Entry**

Individuals desiring to enter this program must be:

#### **Requirements**

1. Youths who are seeking foreign employment and have passed grade 9 or above.
2. Citizens of Nepal with minimum 21 years of age but not exceeding 40.
3. Physically and mentally fit.

#### **Medium of instruction pattern of attendance focus of curriculum**

The medium of instruction for this program will be Nepali and English. However, all technical terminologies will be taught in English.

The trainees should have at least 95% attendance to be eligible to take test and receive completion certificate.

This is a competency-based curriculum. This curriculum emphasizes on performance of competencies.

Minimum 80% times is allocated for practical and remaining 20% time is allocated for related technical knowledge.

Teaching learning methodologies students evaluation details

**Demonstration followed by guided practice, independent practice and performance test should be the key methods besides illustrated talks, assignments, group works, simulations etc.**

- Continuous evaluation of the trainees' performance is to be done by the related instructor/ trainer to ensure the proficiency over each competency under each module.
- Related technical knowledge learnt by trainees will be evaluated through written tests. The test items will mainly be objective types.
- Trainees must secure minimum marks of 70% in an average of both theory and practical evaluations to obtain the course completion certificate.

### **Grading system**

The trainees will be graded based on the marks in percentage secured by them in tests/ evaluations.

- Grade "A": passed with 90% or above
- Grade "B": passed with 80% or below 90%
- Grade "C": passed with 70% and below 80%
- Grade "D": (failed): below 70%

### **Trainer's qualification**

- Vocational training institute graduate level III in related trade with minimum of 3 years field experience.
- Good occupational and instructional skills.
- Above qualification with 2 years experience in related foreign employment.

### **Trainer-trainees ratio**

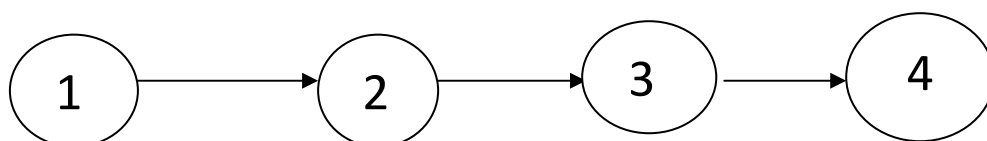
- 1:10 for practical instruction.
- 1:20 class room instruction.

### **Course structure**

The mason training program consists of 4 modules. "Basic skills", "Block mason", "Brick mason" and "project work". "Basic skills" module must be taken before advancing to "block mason" or "brick mason" module.

### Time (Hrs.)

s.no.	Module name	Nature Pr./Th.	Pr.	Th.	Total	Pr.	Th.	Total
1.	Basic skill	Pr./Th.	19 hours. 10'	6 hours. 50'	26 hours.			
2.	Block mason	Pr./Th.	68 hours. 35'	7 hours. 55'	76 hours. 30'			
3.	Brick mason	Pr./Th.	90 hours. 25'	7 hours. 35'	98 hours. 0'			
4.	Project works	Pr.	21 hours.		21 hours.			



### Course objectives

Upon completion of this program, the trainee will be do the following:

- Use and maintain tools/equipments to the standard of competency and safety required in the trade.
- Given the working drawing, the trainee will be able to estimate masonry material quantities.
- Given the working drawing and verbal instruction, the trainee will be able to lay, construct and fix masonry units (foundation wall and superstructure wall) in desired bonding pattern under the supervision of a construction supervisor.

### Assessment

- Formative and summative evaluations are conducted to assess the performance of trainee.

### Certification

For certification of the training, an individual learner must have 95% attendance and a minimum score of 70% in aggregate of theory & practical test. Pass percentage for b90th theory and practical tests are 70%. However individual should pass both theory and practical tests separately

### Module and tasks

s.n	Skills	Theory credit hours (providing related information)	Practical credit hours (demonstration and assignment)	Total credit hours	remarks

Basic skills					
1.	Take permission for masonry form supervisor/foreman	30'	30'	1 hr	
2.	Orient about the safety rules.	30'	1hr	1.50 hr	
3.	Identify commonly available tools/equipments & materials required in hallow block & brick mason.	30'	1 hr 30'	2 hr	
4.	Basic concept on working drawing.	1 hr	2 hr	3 hr	
5.	Check level & lines using pipe level, sprite level & plum bob.	30'	2 hr 30'	3 hr	
6.	Clean the working site	20'	1 hr 40'	2 hr	
7.	Layout foundation for footing with 3, 4, 5 method using existing given centre line & marked footing line.	30'	2 hr 30'	3 hr	
8.	Excavate the foundation using labors or excavator & guide them	30'	2 hr 30'	3 hr	
9.	Compact and level the excavated foundation bed for soling or pcc	30'	2 hr 30'	3 hr	
10.	Perform soling & pcc for foundation bed	30'	2 hr 30'	3 hr	

### Block masonry

1.	Cut block using block saw (block cutter), Bolster & hammer	30'	2hr 30'	3 hr.
2.	Prepare cement mortar	30'	1hr	1hr 30'

3.	Perform cement mortar buttering on block & construct straight stretcher bond wall (both Side end)	30'	11 hr 30'	12 hr
4.	Construct standard block corner wall.	30'	5 hr 30'	6 hr
5.	Construct stretcher bond's' & cross junction.	30'	8 hr 30'	9 h r
6.	Perform pointing on wall joints.	30'	2 hr 30'	3 hr
7.	Perform curring for wall.	30'	30'	1 hr
8.	Construct stretcher bond wall for two room with door & window openings.	45'	8 hr 15'	9 hr
9.	Construct dependent (single) & independent (Double) scaffolding.	30'	2 hr 30'	3 hr
10.	Lay precast door/window sills.	15'	1 hr 45'	2 hr
11.	Fix door & window frames.	30'	1 hr 30'	2 hr
12.	Anchor holdfasts.	25'	1 hr 35'	2 hr
13.	Perform formwork and construct arch over the opening.	30'	5 hr 30'	6 hr
14.	Construct cavity wall & fix wall ties.	30'	5 hr 30'	6 hr
15.	Construct detach & attach piers.	30'	5 hr 30'	6 hr
16.	Clean & polish the wall surface.	30'	5 hr 30'	6 hr

## Brick masonry

1. Cut bricks using brick cutter, bolster & hammer.	25'	2 hr 35'	3 hr
2. Perform cement mortar buttering on brick & Construct English bond 9" thickness (both side End) straight wall.	30'	5 hr 30'	6 hr
3. Construct English bond 9" thick corner wall.	25'	5 hr 35'	6 hr
4. Construct English bond 9" thick tee & cross Junction wall.	25'	5 hr 35'	6 hr
5. Construct Flemish bond 9" thick straight wall.	25'	5 hr 35'	6 hr
6. Construct Flemish bond 9" thick corner wall.	20'	2 hr 40'	3 hr
7. Construct Flemish bond 9" thick tee & cross Junction wall.	25'	5 hr 35'	6 hr
8. Construct English bond 14" thickness (both side End) straight wall.	20'	5 hr 40'	6 hr
9. Construct English bond 14" thick corner wall	15'	2 hr 45'	3 hr
10. Construct English bond 14" thick tee & cross Junction wall.	25'	5 hr 35'	6 hr
11. Construct Flemish bond 14" thick straight wall.	25'	5 hr 35'	6 hr
12. Construct Flemish bond 14" thick corner wall.	15'	2 hr 45'	3 hr
13. Construct Flemish bond 14" thick tee & cross Junction wall.	20'	5 hr 40'	6 hr
14. Construct garden wall.	25'	5 hr 35'	6 hr
15. Prepare surface for plaster.	30'	2 hr 30'	3 hr
16. Apply 1:6 cement mortar plasters on floor.	30'	5 hr 30'	6 hr
17. Apply 1:6 cement mortar plaster on wall & Ceiling.	30'	8 hr 30'	9 hr
18. Perform patchwork.	15'	1 hr 45'	2 hr
19. Lay pre-cast tiles on floor.	30'	5 hr 30'	6 hr

## Projects

1. Project 1	3 hr	3 hr
2. Project 2	3 hr	3 hr
3. Project 3	6 hr	6 hr
4. Project 4	6 hr	6 hr
5. Project 5	3 hr	3 hr