

COURSE TITLE : **CONSTRUCTION & BUILDING SERVICES LAB**
COURSE CODE : **416**
COURSE CATEGORY : **A**
PERIODS/WEEK : **4**
PERIODS/SEMESTER : **54**
CREDITS : **2**

TIME SCHEDULE

<u>MODULE</u>	<u>TOPICS</u>	<u>PERIODS</u>
I	Test on building materials	14
II	Masonry	12
III	Plumbing	14
IV	Wiring	14

Total: 54

OBJECTIVES

1. Determine the fineness of cement
2. Determine the standard and normal consistency of cement
3. Determine the initial and final setting time of cement
4. Find the stress at first crack and ultimate stress in cement concrete by compression test
5. Find yield point stress, breaking stress, ultimate stress, % of elongation and % of reduction in constructional area in M.S. Bar by tension test
6. Find out stress at first crack in bricks by compression test
7. Draw inferences from test results on workability of cement concrete construction
8. Determine the fineness modulus of fine aggregate and coarse aggregate
9. List tools and materials required to construct masonry walls
10. Construct corner walls of English bond and Flemish bond
11. Construct Isolated Piers of English bond and Flemish bond
12. List out different tools and materials required for water supply
13. List out different tools and materials required for sanitary fittings
14. List out different materials and tools required for simple service connection

CONTENT OUTLINE

MODULE I

Tests on building materials

1. Fineness test on cement
2. Standard and normal consistency of cement.
3. Initial and final setting time of cement
4. The stress at first crack and ultimate stress in cement concrete by compression test
5. Yield point stress, breaking stress, ultimate stress, % of elongation and % of reduction in constructional area in M.S. Bar by tension test
6. Stress at first crack in bricks by compression test
7. Workability of cement concrete – Slump test, Compaction factor
8. Fineness modulus of fine aggregate and coarse aggregate

MODULE II

Brick – bond – English bond and Flemish bond – Isolated Piers

Tools and materials required to construct masonry walls

1. Corner walls of English bond - One brick wall, One and half brick wall
2. Corner walls of Flemish bond - One brick wall, One and half brick wall
3. Isolated Piers in English bond - One and half brick wall, Two brick wall
4. Isolated Piers in Flemish bond- One and half brick wall, Two brick wall

MODULE III

1. Fitting of a single tap and bath room shower,
2. Fitting of a water closet with different trap

MODULE IV

Wiring for two simple lamp wiring for two lamp

1. Series connection
2. Parallel. Single lamp connected by two switches from different point.