



WB. Tech.	I	Semester	I / II	Teaching Scheme				Evaluation Scheme	
Subject Name	Building Workshop Lab			L	T	P	Credits	CCE	SEE
Subject Code	BTCL22103			-	-	2	1	25	25
Type of course	Engineering Science			CCE : Continuous and Comprehensive Evaluation SEE : Semester End Evaluation					
Prerequisite	No Prerequisite								
Rationale	To familiarise with the basic materials as well as tools and equipment used for execution processes. The hands-on training is given in different shops. Essentially student should know the types of technicians involved, machinery or equipment necessary, time required to fabricate and also should be able to understand the time duration and efforts of the product or job work.								

Course Outcomes (COs): At the end of the course, students will be able to		Marks % Weightage
CO - 1	Identify various basic materials used for masonry & concrete work and execute relevant basic works.	18
CO - 2	Identify Plumbing Items and execute quality checks in plumbing works.	18
CO - 3	Choose suitable finishing items suitable for various applications.	28
CO - 4	Select suitable wooden material for various applications.	18
CO - 5	Explain safety practices and protection	18

Course Contents			
Unit	Content	Tentative Teaching Hours	Tentative Unit Weightage
1.	Introduction: Introduction of overall Execution of Site, different types of technicians, tools and machinery used for various civil engineering applications – Site Visit & Report Writing	4	13%
2.	Masonry Shop: Basic Exposure of Brick Masonry work, Types of Bonds and Joints (vertical and horizontal), Development of English Bond and Flemish Bond without Mortar – Site Visit / Laboratory Work& Report Writing	4	13%
3.	Concrete Shop: Understanding of Key Ingredient Materials, Mixing, Batching, Formwork, Construction of Beam Column, Slab. Curing for Concrete Work – Site Visit & Report Writing	4	13%
4.	Plumbing Shop: Types of Pipes and Fittings, Plumbers tools and equipment's, Plumbing services, Sanitary Pipes and Fittings, Water Supply Pipes and Fittings, Joints – Site Visit & Report Writing	4	13%



5.	Finishing Shop: Basic Understanding of different types of Flooring Work, Plaster Work, Exterior and Interior Color Works – Materials and Execution Work – Site Visit & Report Writing	6	22%
6.	Carpentry Shop: Introduction to Different Types of Natural Woods and Plywood, Alternative Material available – Site Visit & Report Writing	4	13%
7.	Safety practices and protection: Safety Practices, Causes of accidents, General safety rules, Safety signs and symbols, Safety Precaution. First Aid box and its constituent materials, Fire, Causes of Fire, basic ways of extinguishing the fire Classification of fire - & Report Writing	4	13%

Suggested Specification table with Marks

% Distribution of Marks					
R Level	U Level	A Level	N Level	E Level	C Level
10	25	30	10	10	15

Legends: R: Remembrance, U: Understanding; A: Application, N: Analyze, E: Evaluate C: Create and above Levels (Revised Bloom's Taxonomy)

Recommended Reference Books

- 1 Bentley Maverick, "Plumbing for Beginners: A Comprehensive Guide to Home Plumbing", Independently Published, 2023.
- 2 H. S. Bawa, "Workshop Practices", Tata McGraw-Hill, 2009.
- 3 M. S. Shetty, "Concrete Technology, Theory and Practice", S. Chand and Company Ltd. Delhi, 2005.
- 4 Raghuvanshi B. S., "Workshop Technology Vol. 1 & 2", DhanpatRai & Sons, 1998.
- 5 Sandip Mantri, "The A to Z of Practical Building Construction and its management", Satya Prakashan, New Delhi, 2020.
- 6 S. S. Bhavikatti, "Building Material and Construction", Vikas Publishing House Pvt. Ltd., 2014.

CO-PO-Mapping

CO	PO 1	PO 2	PO 3	PO 4	PO 5	PO 6	PO 7	PO 8	PO 9	PO 10	PO 11	PO 12
CO-1	2	-	2	-	2	2	1	2	-	2	-	2
CO-2	2	-	2	-	2	2	1	2	-	2	-	2
CO-3	2	-	2	-	2	2	2	2	-	2	-	2
CO-4	1	-	2	-	2	2	2	2	-	2	-	2
CO-5	1	-	2	-	2	2	2	2	-	2	-	2