SEMESTER S2

CIVIL ENGINEERING DRAFTING LAB

Course Code	**CDW 208**	**CIE Marks**	50
Teaching Hours/Week (L: T:P: R)	0-0-2-0	**ESE Marks**	50
Credits	1	**Exam Hours**	2 Hrs. 30 Min.
Prerequisites (if any)	None	**Course Type**	Lab

Course Objectives:

1. To introduce the fundamentals of Civil Engineering Drawing and understand the principles of planning.
2. To enable students to learn the drafting of buildings manually and using drafting software.

SYLLABUS

Module No.	Experiments (Minimum 12 experiments)
1	Introduction to Civil Engineering Drawing, Concept of Scale, Plan, Section and Elevation. Drawing tools and accessories, Manual and Computer Aided Drafting. Draw the view of simple objects (books, shelves, benches, etc.) adopting appropriate scales
2	Draw sectional details and elevation of paneled doors.
3	Draw sectional details and elevation of wooden glazed window.
4	Draw elevation, section and detailing of connection between members for steel roof truss
5	Draw plan, section and elevation of dog legged staircase
6	Prepare a model of a single storied building with card board from given drawings (Not expected to complete in the lab hours)
7	Draw plan, section and elevation of single storied residential building from

	the given line sketch.
8	Draw plan, section and elevation of two-storied framed building from the given line sketch
9	Draw plan, section and elevation of an industrial building.
10	Introduction to Auto CAD: Preparation of CAD drawing of any of the building components (Experiments 2-5)
11	Preparation of CAD drawing of plan, section and elevation of single storied residential building (Experiment 7)

Course Assessment Method

(CIE: 50 marks, ESE: 50 marks)

Continuous Internal Evaluation Marks (CIE):

Attendance	**Preparation/Pre-Lab Work, experiments, Viva and Timely completion of Lab Reports / Record. (Continuous Assessment)**	**Internal exam**	**Total**
5	25	**20**	**50**

End Semester Examination Marks (ESE) : (Internal Evaluation Only)

Procedure/ Preparatory work/Design/ Algorithm	**Conduct of experiment/ Execution of work/ troubleshooting/ Programming**	**Result with valid inference/ Quality of Output**	**Viva voce**	**Record**	**Total**
10	15	10	10	5	50

Mandatory requirements for ESE:

Submission of Record: Students shall be allowed for the end semester examination only upon submitting the duly certified Lab record.

Pass Criteria:

A student must score a minimum of 50% overall, combining marks from both Continuous Internal Evaluation (CIE) and End Semester Examination (ESE).

In addition, the student must secure at least 40% in the End Semester Examination (ESE).

The ESE shall be conducted internally, with evaluation carried out by a panel of faculty members. This panel must include at least one faculty member who was not involved in the Continuous Internal Evaluation (CIE) of the lab course.

Course Outcomes (COs)

At the end of the course students should be able to:

Course Outcome		Bloom's Knowledge Level (KL)
CO1	Illustrate ability to organize civil engineering drawings systematically and professionally	**K2**
CO2	Illustrate the detailing of building components like doors, windows, roof trusses etc.	**K2**
CO3	Develop the sketch of plan, front elevation and sectional elevation from line diagram.	**K3**
CO4	Draft the plan elevation and sectional views of the residential buildings, industrial buildings, and framed structures using software.	**K3**

Note: K1- Remember, K2- Understand, K3- Apply, K4- Analyze, K5- Evaluate, K6- Create

CO-PO Mapping Table:

	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11
CO1	3						3	3		1	2
CO2	3						3	3		1	2
CO3	3						3	3		1	2
CO4	3				2		3	3		1	2

Note: 1: Slight (Low), 2: Moderate (Medium), 3: Substantial (High), -: No Correlation

Text Books				
Sl No.	**Title of the book**	**Name of the Author/s**	**Name of the Publisher**	**Edition and Year**
1	Building Drawing and Detailing	Dr. Balagopal T.S. Prabhu	Spades Publishers, Calicut	Revised Edition 2022
2	Building Drawing With An Integrated Approach to Built Environment	Shah, M.G., Kale, C. M. and Patki, S.Y.	Tata McGraw Hill Publishing Company Limited, New Delhi	5th edition 2017

Sl No.	**Title of the book**
1	Elements of Workshop Technology Vol-1- Manufacturing Processes
2	Kerala panchayat building rules (refer the latest updates)
3	Kerala Municipality building rules (refer the latest updates)
4	IS962: 1989 (Reaffirmed 2022) Indian Standard Code of practice for architectural and building drawings