

Semester 2

Civil Engineering Drafting Lab

Course Code	Teaching hours per week				Credits	Exam hours	Course type	CIE Marks	ESE Marks
	L	T	P	R					
26NNVLC201	-	-	2	0	2	2.5	PCL	50	50

- Preamble:** The course is designed to introduce the fundamentals of Civil Engineering drawing and understand the principles of planning. The students will be able to learn the drafting of buildings using drafting software such as AutoCAD.

2. Prerequisites: NA

Experiment Number	Syllabus Description: List of Experiments
1	Introduction to the AutoCAD interface and basic commands
2	Draw various building components (foundation of brick masonry, RCC column footing, raft foundation)
3	Draw sectional details and elevation of paneled doors
4	Draw sectional details, detailing on fixing arrangement and elevation of windows.
5	Drawing of building plan (single storey residential)
6	Development of section and elevation from the prepared plan
7	Detailed drawing of dog legged staircase
8	Draw plan, section and elevation of two storey building
9	Site plan preparation
10	Plan, elevation and section of a typical multi storey building
11	Plan and section of septic tank
12	Draw plan, section, and elevation of public building

All experiments are mandatory

3. Course Assessment Methods

Continuous Internal Evaluation Marks (CIE):

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

End Semester Examination Marks (ESE):

Preparatory Work / Understanding of Drawing Requirements	Conduct of experiment/ Execution of work	Record	Total
10	35	5	50

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

4. Course Outcomes

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

Course Outcomes		Blooms Taxonomy Level
CO1	Apply the fundamentals of technical drawing and orthographic projection using AutoCAD to create accurate 2D drawings	K3
CO2	Prepare architectural drawings of residential and public buildings using AutoCAD based on given requirements, ensuring compliance with relevant building regulations such as NBC and KMBR/KPBR.	K3
CO3	Develop sectional views and elevations from prepared building plans or given line sketches/requirements using AutoCAD, following standard drafting practices and conventions.	K3

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

5. Mapping of Course Outcomes with Program Outcomes

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

6. Text Books

Sl No	Title of Book	Name of Author/s	Publisher	Edition and Year
1	Building Drawing and Detailing	Dr. Balagopal T.S. Prabhu	Spades Publishers, Calicut	Revised Edition 2022
2	Building Planning and Drawing	M.V. Chitawadagi, S.S. Bhavikatti	Wiley India	2021
3	AutoCAD Essentials	Autodesk Official Press	Wiley Publications	2025

7. Reference Books

Sl No	Title of Book	Name of Author/s	Publisher	Edition and Year
1	National Building Construction Standards	Bureau of Indian Standards	Bureau of Indian Standards	2026
2	Kerala Panchayat Building Rules	Government of Kerala	Government of Kerala	2019
3	Kerala Municipality Building Rules	Government of Kerala	Government of Kerala	2019
4	Building Drawing With An Integrated Approach to Built Environment	Shah, M.G., Kale, C.M., and Patki, S.Y.	McGraw-Hill India	6th Edition 2020

8. Video Links or any other Reference Materials

Sl No	Details Like Weblink, Publication Details
1	https://help.autodesk.com/view/ACD/2027/ENU/