

NIRMA UNIVERSITY

Institute:	Institute of Technology
Name of Programme:	BTech Civil Engineering
Course Code:	2CL201CC23
Course Title:	Civil Engineering Drawing and Building Planning
Course Type:	Core
Year of Introduction:	2023-2024

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Course Learning Outcomes (CLOs):

At the end of the course, the student will be able to –

1. develop civil engineering drawings (BL3)
2. apply principles and regulations for building and town planning (BL3)
3. examine submission and detailed building drawings (BL4)
4. utilize computer-aided tools to create building drawings. (BL3)

Unit	Contents	Teaching hours (Total 15)
Unit-I	Building Drawing Introduction to plan, elevation and section of building, development of detailed plan from line diagram, standard guidelines for building drawing, submission and detailed drawing.	03
Unit-II	Residential Building Planning and Bye Laws Architectural principle, principles of planning, modular planning concept, sustainability in planning of building, objectives, importance of bye-laws, national building code, government regulations.	05
Unit-III	Planning of Public Buildings Planning of buildings for different purposes like educational, health, recreational, industry and transportation; spatial and land use related planning.	03
Unit-IV	Town Planning Elements of town planning - zoning, land use zoning and height zoning, growth of towns, master plan, town planning schemes, urban roads, concept of smart cities, green building.	04

Self-Study:

The self-study contents will be declared at the commencement of the semester. Around 10% of the questions will be asked from self-study contents.

Suggested Readings/
References:

Shah, M. G., Kale, C. M. & Patki, S. Y. *Building Drawing with an Integrated Approach to Built Environment*, Tata McGraw-Hill.
Zaidi S. K. A. & Siddiqui S. *Drawing and Design of Residential and Commercial Buildings*, Standard Publishers.
Raja Rao, Y. N. *Planning and Designing of Residential Building*, Standard Publishers.
Sharma S. C. & Singh G. *Civil Engineering Drawing*, Standard Publishers.
Prabhu Balagopal, T. S. *Building Drawing and Detailing*, Spades Publishers.
Sikka, V. B. *A Course in Civil Engineering Drawing*, S. K. Kataria and Sons.
National Building Code of India, Bureau of Indian Standards.

Laboratory Work:

Laboratory work will be based on the above syllabus with a minimum of 06 exercises to be incorporated.

Suggested List of Experiments/Exercises:

Sr. No.	Name of Experiments/Exercises	Hours
1	Study of submission and detailed drawings	06
2	Planning of residential buildings	14
3	Preparation of submission and detailed drawings for residential buildings	14
4	Preparation of building plan using CAD tools	12
5	Planning of public buildings	06
6	Development of town planning scheme	08

