

NIRMA UNIVERSITY

Institute:	Institute of Technology
Name of Programme:	B Tech in Civil Engineering
Course Code:	2CL201
Course Title:	Civil Engineering Drawing and Building Planning
Course Type:	(<input checked="" type="checkbox"/> Core/ <input type="checkbox"/> Value Added Course/ <input type="checkbox"/> Departmental Elective/ <input type="checkbox"/> Institute Elective/ <input type="checkbox"/> University Elective/(<input type="checkbox"/> Open Elective Any other)
Year of Introduction:	2023-24

L	T	Practical component				C
		LPW	PW	W	S	
1	0	4	-	-	-	3

Course Learning Outcomes (CLOs):

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

1. interpret civil engineering drawings (BL2)
2. apply planning principles and regulations for building and town (BL3)
3. develop submission and detailed drawing for a building (BL3)
4. make use of computer aided tools for preparing building drawings. (BL3)

Syllabus:

Total Teaching hours:15

Unit	Syllabus	Teaching hours
Unit-I	Building Drawing: Introduction to plan, elevation and section of the 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 city 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.

Suggested List of Experiments: Laboratory work will be based on the above syllabus with minimum 06 exercises to be incorporated.

Sr. No.	Name of Experiments/Exercises	Hours
1.	Study of submission and detailed drawings	04
2.	Planning of residential buildings	12
3.	Preparation of submission and detailed drawings for residential buildings	12
4.	Preparation of building plan using CAD tools	10
5.	Planning of public buildings	04
6.	Development of the town planning scheme	08