

23CE21SC BUILDING PLANNING AND DRAWING

Course Category	Skill Enhancement Course	Credits	2
Course Type	Practical	Lecture – Tutorial –Practical	0-1-2
Prerequisite	-	Sessional Evaluation	30
		Semester End Exam. Evaluation	70
		Total Marks	100

Course Objectives	1. Initiating the student to different building bye-laws and regulations.
	2. Imparting the planning aspects of residential buildings and public buildings.
	3. Giving training exercises on various signs and bonds.
	4. Giving training exercises on different building units.
	5. Imparting the skills and methods of planning of various buildings.
Course Outcomes	CO1 Plan various buildings as per the building by-laws.
	CO2 Distinguish the relation between the plan, elevation and cross section and identify the form and functions among the buildings.
	CO3 Draw signs and bonds
	CO4 Draw different building units
	CO5 Learn the skills of drawing building elements and plan the buildings as per requirements.
Course Content	<p>Introduction: Terms used in building drawing as per NBC – Factors affecting in selection of site – Functional requirements of a residential building – Minimum size requirements as per NBC – Standard sizes of door, windows and ventilators - standard conventional signs and symbols used in Civil Engineering Drawing – Bonds in brick masonry – Paneled and flush doors – Glazed windows – Steel roof truss.</p> <p>Planning: Principles of planning – Factors to be considered in planning – Planning of residential, Office, School and Hospital buildings – Preliminaries of vastu.</p> <p>List of Exercises:</p> <ol style="list-style-type: none"> 1. Detailing & Drawing of Sign Conventions. 2. Detailing & Drawing of English Bond. 3. Detailing & Drawing of Flemish Bond. 4. Detailing & Drawing of Doors. 5. Detailing & Drawing of Windows. 6. Detailing & Drawing of Ventilators. 7. Detailing and Drawing of Roofs.

	<p>8. Drawing of Line Diagram of Residential Buildings by using Building Bye- Laws.</p> <p>9. Drawing of Plan, Elevation & Section from line diagram for a single Storey Building.</p> <p>10. Drawing of Plan, Elevation & Section for Hospital Building.</p> <p>11. Drawing of Plan, Elevation & Section for Industrial Building.</p> <p>12. 3D modelling of residential building using AutoCAD.</p>
<p>Textbooks and Reference books</p>	<p>Text Books:</p> <ol style="list-style-type: none"> 1. Gurcharan Singh and Jagdish Singh “<i>Planning, Designing and Scheduling</i>”, latest edition, 2018. 2. M. Chakraborti, “<i>Building planning and drawing</i>” 8th edition, 2019. 3. M G Shah, C M Kale and S Y Patki, “<i>Building Drawing</i>”, Tata McGraw Hill, NewDelhi, 6th edition, 2020. <p>Reference Books:</p> <ol style="list-style-type: none"> 1. National Building Code 2016 (Volume- I & II). 2. M G Shah and C M Kale, “<i>Principles of Building Drawing</i>”, Trinity Publications, New Delhi, 3rd edition, 2015. 3. B. P. Verma, “<i>Civil Engineering drawing and House planning</i>”, Khanna publishers, New Delhi, 9th edition, 2016. 4. Suraj Singh, “<i>Civil Engineering Building Practice</i>”, CBS Publications, New Delhi and Chennai, 3rd edition, 2017. 5. G. C Saha and Joy Gopal Jana, “<i>Building Materials and Construction</i>”, McGraw Hill Education (P) India Ltd., New Delhi, 2nd edition, 2017.

CO-PO Mapping: 3-High Mapping, 2-Moderate Mapping, 1-Low Mapping, - -Not Mapping

	PO 1	PO 2	PO 3	PO 4	PO 5	PO 6	PO 7	PO 8	PO 9	PO 10	PO 11	PO 12	PS O1	PS O2	PS O3
CO 1	3	2	2	-	3	-	2	1	-	2	2	2	2	3	2
CO 2	3	3	2	-	3	-	2	1	-	2	2	2	2	3	2
CO 3	3	2	2	-	3	-	1	-	-	1	1	2	2	2	1
CO 4	3	2	2	-	3	-	1	-	-	1	1	2	2	3	1
CO 5	3	3	2	-	3	-	2	1	-	2	2	3	3	3	2