INSTITUTE	**FACULTY OF TECHNOLOGY**
PROGRAM	**BACHELOR OF TECHNOLOGY (CIVIL ENGINEERING)**
SEMESTER	**3**
COURSE TITLE	**BUILDING PLANNING AND DRAWING**
COURSE CODE	**01CI1302**
COURSE CREDITS	**3**

Objective:

1 To understand the fundamental principles and concepts of planning and architecture for buildings.

2 To understand the fundamental principles and concepts of planning and architecture for buildings.

3 To learn the development controls covered by building bye laws and national building code for buildings.

4 To understand the fundamental principles and concepts of planning and architecture for buildings

5 To study about different views of layout.

6 To learn the development controls covered by building bye laws and national building code for buildings.

Course Outcomes: After completion of this course, student will be able to:

1 Discuss various aspects of principles of planning and architecture in planning building and mass composition.

2 Describe the technical terminologies related to planning and various conventional signs and symbols used in drawing the plans

3 Prepare working drawings, foundation plans, and other executable drawings with proper details for residential buildings.

4 Sketch perspective, orthographic, cross-sectional, and elevation drawing of the building by imagination

Pre-requisite of course:TO GET FAMILIAR WITH BUILDING PLANNING AND ITS DRAWINGS

Teaching and Examination Scheme

Theory Hours	Tutorial Hours	Practical Hours	ESE	IA	CSE	Viva	Term Work
2	0	2	50	30	20	25	25

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Contents : Unit	Topics	Contact Hours
1	**Introduction** Basics of Building, major components and building types, Preliminary planning concepts of building planning and architectural considerations	2
2	**Principles of planning** Requirements of a good building planning, Factors affecting building planning, Detail study on elements of building planning, Sun and building relationship, Types of basic services in buildings: Brief introduction	4
3	**Building Bye-laws** Role, need, and importance of building bye-laws, Structuring of bye-laws: Inclusion of National Building code and legal aspects, Scope of bye-laws and Case study of bye-laws of a local authority	4
4	**Planning of buildings** Functions of building according to types, Planning aspects of a residential building, List of components and functions of a residential building, Area requirements and arrangement for various components, Minimum dimensions and standards as per bye-laws, Introduction to plans and sketches of building components, Case studies of planning of Commercial buildings, Hospitals and Educational buildings	6
5	**Building Drawings** Meaning, need and importance of building drawings, Types of building drawings, standard sizes, scales, formats, line types and hatching, Information to be included in a typical building drawing, List of common types of standard symbols, Case study of a typical standard residential building drawing: list of drawings, detailing requirements, importance of a particular types and interpretation of drawing on site, Case study of a typical standard public building drawing: list of drawings, detailing requirements, importance of a particular types	6
6	**Developing the building drawing (Drawing exercises)** Drawing exercise of a scaled residential building: Plans, Elevations and Sections in standard formats, Perspective, Isometric and orthographic drawing of a building	6
Total Hours		**28**

Suggested List of Experiments:

Contents : Unit	Topics	Contact Hours
1	**Experiment-1** Drawing of Symbols for Construction materials, Doors & Windows; and Furniture	4
2	**Experiment-2** Drawing for Sanitation and Water Supply fixtures and Electric Fitting	2

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Suggested List of Experiments:

Contents : Unit	Topics	Contact Hours
3	**Experiment-3** Drawing for Miscellaneous Symbols; Abbreviations	2
4	**Experiment-4** Develop a working drawing for two storied residential building with suitable scale: Plans, elevation, section, lay-out plan, key plan, site plan, area table, schedule of opening (Drawing Sheet-1)	6
5	**Experiment-5** Develop a Furniture and Electric layout Plan for two storied residential buildings. (Drawing sheet-2)	6
6	**Experiment-6** Prepare a one-point perspective view for Entrance stair	2
7	**Experiment-7** Prepare a two-points perspective view for Security Cabin	2
8	**Experiment-8** Prepare a Plan for Public Building	4
Total Hours		**28**

Textbook :

1 Planning, designing building, Y. S. Sane, Allies Book Stall, 2018

References:

1 Building Drawing , Building Drawing , M. G. Shah, C. M. Kale and S. Y. Patki, Tata Mc Graw Hill, 2012

Suggested Theory Distribution:

The suggested theory distribution as per Bloom's taxonomy is as follows. This distribution serves as guidelines for teachers and students to achieve effective teaching-learning process

Distribution of Theory for course delivery					
Remember / Knowledge	**Understand**	**Apply**	**Analyze**	**Evaluate**	**Higher order Thinking / Creative**
5.00	50.00	40.00	5.00	0.00	0.00

Instructional Method:

1 Prerequisite of the course and its pattern shall be discussed on the commencement of the course.

2 Lectures shall be conducted in class room using various teaching aids.

3 Presence in all academic sessions is mandatory which shall carry 5% marks of the total internal evaluation.

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Instructional Method:

4 At the end of each unit/topic an assignment based on the course content shall be given to the students which shall carry 5% weightage for timely completion and submission of the assigned work.

5 The laboratory experiments are planned in such a way that it covers the practical aspects of the course contents. The performance of these experiments shall bring the clarity of the theoretical concepts which the students have studied during the academic sessions.

Supplementary Resources:

1 https://www.monarch-innovation.com/types-of-construction-drawings-used-in-building-construction

2 https://www.youtube.com/watch?v=FF_5w5hZav4

3 https://nptel.ac.in/courses/112103019

4 https://nptel.ac.in/courses/124107157

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