



GUJARAT TECHNOLOGICAL UNIVERSITY

BACHELOR OF ENGINEERING SYLLABUS

Minor/Honours Degree : Computer Aided Civil Engineering Processes

Subject Code : N114AV01

Subject Name : Basics of Planning - Software Applications

WEF Academic Year :	2024-25
Semester :	4
Category of the Course :	Compulsory

Type of course: Minor Degree

Prerequisite: Basics of Principles of planning, types of buildings and its drawings

Rationale: This subject helps students to learn most basic applications of planning concepts as per industry requirements.

Teaching and Examination Scheme:

Teaching Scheme			Credits C	Examination Marks				Total Marks
L	T	P		Theory Marks		Practical Marks		
			ESE (E)	PA (M)	ESE (V)	PA (I)		
2	0	4	4	70	00	30	0	100

Content:

Sr. No.	Content	Total Hrs.
1	Introduction: Principle of Building Planning, Building By laws, Principle of Architectural Planning, Introduction to the NBC, Introduction to the RERA.	06
2	Software Phase-I Introduction for drafting software-AutoCAD, Workspace of AutoCAD, General setting up for the drawing, Basic command introduction with its usage, small object preparation by using Drafting commands.	06
3	AutoCAD 2D Plan Preparation Single Line plan Preparation, 2 line preparation, Use of Layers in plan, Use of other commands like, Hatch, Text, Creation of object, Stair case planning.	10
4	AutoCAD 2D Working Plan Working plan for residential building, Commercial building and industrial building. Centerline plan for structural inputs.	08
5	Section and Elevation Creation of section view from various location to locate internal views, Creation of elevation, RHS, LHS and Back side view.	06
6	Miscellaneous Furniture Plan, Electricity plan, Plumbing plan, Introduction to the BIM, Introduction to the other drafting software.	06



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Suggested Specification table with Marks (Theory):

Distribution of Theory Marks					
R Level	U Level	A Level	N Level	E Level	C Level
10%	25%	25%	20%	10%	10%

Legends: R: Remembrance; U: Understanding; A: Application, N: Analyze and E: Evaluate C: Create and above Levels (Revised Bloom's Taxonomy)

Note: This specification table shall be treated as a general guideline for students and teachers. The actual distribution of marks in the question paper may vary slightly from above table.

Reference Books:

1. Comprehensive General Development Control Regulations.
2. Civil Engineering Drafting & House planning by B.P.Verma :- Khanna Publications.
3. Building Planning and Drawing by Dr. M. Kumara Swamy :- Charotar Publications.
4. AutoCAD Reference Guide Book by CAD Desk.

Course Outcomes:

Sr. No.	CO statement	Marks % weightage
CO1	Students will be able to understand concept and requirement of Planning.	10%
CO2	Students will be able to learn basic use of AutoCAD :- Drafting software	25%
CO3	Students will be able to draw floor plan by using basic commands of AutoCAD.	45%
CO4	Students will be able to create section and elevation in 2D Visuals by using commands of AutoCAD.	10%
CO5	Students will be able to create furniture plan in AutoCAD.	05%
CO6	Students will be able to create full working drawings in AutoCAD by using advance commands in AutoCAD.	05%

List of Experiments:

1. Create different 2D Objects by using Basics AutoCAD commands. (Minimum 6 objects)
2. Draw 2D Floor plan of different dimensions by incorporating GDCR norms. (Minimum 3 plans)
3. Draw 2D Floor plan with its section and elevation view in AutoCAD. (Minimum 3 plans)
4. Draw working floor plans, section, elevation in AutoCAD. (Minimum 5 plans).

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