



Kadi Sarva Vishwavidyalaya's
LDRP Institute of Technology & Research
Gandhinagar-382 015



B.E. Semester: III

Department of Civil Engineering

Subject Name: Computer Aided Civil Engineering Drawing (PCC302-N)

A. Course Objective:

- To provide a coherent development to the students for building planning and drawing.
- To enhance concept of building drawing
- To develop skills in computer aided civil engineering drawing
- To give an experience in the implementation of principle of planning which are applied in field of civil engineering drawing
- To present the foundations of many basic civil Engineering tools and concepts related to same.
- To provide knowledge of building and town planning.

B. Teaching /Examination Scheme

Teaching scheme				Total Credit	Evaluation Scheme					
L	T	P	Total		Theory		Mid Sem Exam	CIA	Pract/ Tut.	Total
Hrs	Hrs	Hrs	Hrs		Hrs	Marks	Marks	Marks	Marks	Marks
02	00	04	06	04	03	70	30	20	30	150

C. Detailed Syllabus:

Module 1: Building Planning

Unit 1: Introduction to concept of drawings, Interpretation of typical drawings, Planning drawings to show information concisely and comprehensively; optimal layout of drawings and Scales; Introduction to computer aided drawing, coordinate systems, reference planes. Commands: Initial settings, Drawing aids, Drawing basic entities, Modify commands, Layers, Text and Dimensioning, Blocks, Drawing presentation norms and standards.



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Unit 2: Study of general principles of Planning, Typical Building Byelaws as per National Building Code, Planning of residential buildings, Public buildings, and Industrial Building

Unit 3: Terms, Elements of planning building drawing, Methods of making line drawing and detailed drawing. Site plan, floor plan, elevation and section drawing of small residential buildings, Foundation plan. Roof drainage plans, Depicting joinery, standard fittings & fixtures, finishes.

Unit 4: Perspective view of building

Module 2: Town Planning

Unit 1: Origin and Growth of towns, Satellite Town, Ribbon development Elements of City Planning, Zoning and land use, Housing, Introduction to landscape architectural planning, Master plan, Town Center, Civic, centers, Shopping Center, Town Planning Schemes, CBD.

D. Lesson Planning:

Sr. No.	Title of the Unit	Minimum Hours	Weightage
1.	Building planning: Introduction to basics of computer aided civil engineering drawing	06	20%
2.	Introduction to building planning	04	14%
3.	Building drawing	04	14%
4.	Perspective drawing	04	14%
5.	Town planning: Basic concepts of town planning	14	38%
Total		48	100

E. List of Drawing:

Experiment No.	Name of Drawings	No of turns
1.	Planning and drawing of residential building	5
2.	Furniture and drainage layout of residential building	4
3.	Planning and drawing of public building	3



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4.	Perspective drawing of residential building	3
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F. Instructional method and pedagogy (Continuous Internal Assessment Scheme) (CIA)

- At the start of course, the course delivery pattern, prerequisite of the subject will be discussed.
- Lecture may be conducted with the aid of multi-media projector, black board, OHP etc.
- Attendance is compulsory in lectures and practical which carries marks.
- At regular intervals assignments will be given. Students should submit all assignments during given period.
- Classroom participation and involvement in solving the problems in Tutorial rooms Carries Marks
- Internal exam of 30 marks will be conducted as a part of Mid semester evaluation.
- Experiments shall be performed in the field related to course contents.
- The course includes a practical, where students have an opportunity to build an appreciation for the concept being taught in lectures.

G. Students Learning Outcomes:

- The students will gain an experience in the implementation of environmental Engineering on engineering concepts which are applied in field.
- The students will get a diverse knowledge of environmental engineering practices applied to real life problems.
- The students will learn to understand the theoretical and practical aspects of environmental engineering along with the design and management applications.



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H. Recommended Study Materials:

A. Reference Books:

1. Gurcharan Singh, Building Planning, Designing and Scheduling.
2. Rangwala, S.C., Town Planning, Charotar Publishing House, Anand. 58
3. Hiraskar, G.K., Town Planning, Dhanpatrai & Sons, New Delhi.
4. Sikka, V.B., Civil Engineering Drawing, S.K. Kataria & Sons.
5. Shah, M.G., Kale, C.M. and Patki, S.Y., Building Drawing, Tata Mcgraw Hill, New Delhi.
6. Sane, Y.S., Planning and Designing Building.
7. General Development Control Regulations published by AUDA and GICEA.
8. National Building Code of India, Indian Standard Institution (ISI), 2005, New Delhi.
9. BIS and IS Code.

B. Web Materials:

1. <http://edudel.nic.in>
2. <http://bis.org.in/other/quake.htm>
3. http://www.vastu-design.com/india_homes.htm
4. <http://www.thepeninsulaneighborhood.com/ThePlan.html>
5. http://www.historytution.com/indus_valley_civilization/town_planning.html