Course Plan

Tezpur University						
School of Engineering						
Department of Civil Engineering						
Course Name: Building Construction and Drawing						
Course Code: CE 216, Credit: 4 (L:T:P = 2:0:2)						

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1. ABSTRACT:

Building Construction and Drawing is the introductory course in Civil Engineering at Tezpur University. The primary purpose of this course is aimed at providing basic understanding of buildings, components of buildings, construction and drawing.

2. OBJECTIVE:

The main objectives of this course in the Department of Civil Engineering at Tezpur University are: to teach students the main components of building, its constructions and drawing techniques; to enable students to read and transmit the details on these drawings into understandable information and instructions; to develop the visualization skills of students; and to teach them to present their ideas using theoretical knowledge and drawings.

3. PREREQUISITES OF THE COURSE: None

4. COURSE SYLLABUS

Types of Buildings; Components of a Building; Earthwork and excavation; Functions of foundations; Essential requirements of a good foundation; Types of foundations; Bonds in brick work; Brick laying; Location and types of doors and windows; Requirements of a good stair; Different types of stairs; Types of roofs- Pitched roof, flat roof, curved roof, trussed roof; types of shoring and scaffolding and its suitability; Types of paints; Painting on different surfaces; defects in painting; Principles of planning- Orientation, Functional requirements, Building Byelaws.

5. PRACTICAL

Size of Drawings, Layout of Drawing, Title Block, Scales; Lettering & Dimensioning; Graphical Symbols; Abbreviations; Different Types of Foundations (Spread footing, Raft foundation etc.); Plinth, Damp Proof Course and Basement; Sizes of Doors, Designation; Classification of Doors; Classification of windows; Types of Stairs, Maximum riser and minimum width of Tread, minimum width of stair case, width of landing and handrails; Sloping Roofs- Timber Truss; Flat Roofs; Working drawing of a three bed room single storied and double storied flat roofed residential building.

6. GRADING POLICY:

The assessment of is based on revised guidelines on continuous evaluation with relative grading. The break-up of the scheme is as follows

Grading for Theory

SI.	Mode of assessment	Туре	Marks	Duration	Syllabus	
1	Test 1	Written	25	45 minutes	From beginning	
2	Test 2 Mid Term	Written	40	75 minutes	From beginning	
3	Test 3	Written type (including objective type), assignment, Quiz, Seminar, Field visit etc	25	45 minutes	From Test-II till Test-III	
4	Test 4 End Term	Written	60	120 minutes	From Test-II till Test IV and the course instructor may include some units of the syllabus covered under Test-I and Test-II	
Grand total 150 marks						

Grading for Laboratory

SI.	Mode of assessment	Туре	Marks	Duration	Syllabus
1	End term	Practical/Viva	50	2 hours	From beginning
Gra	and total			50	marks

6. COURSE OUTCOME

Upon successful completion of this course, the students are expected to know the various types and components of the building. They are also expected to read and transmit the details from drawings into understandable information and instructions.

7. SKILL DEVELOPMENT

Upon successful completion of this course, the students will be able to draw single storey and multi-storey building plans. They will also develop the visualization skill and can read and transmit details from drawings into understandable information.

8. REFERENCE BOOKS

- Punmia, B. C. and Jain, A. K. *Building Construction*. Laxmi Publications.
- Rangwalla. *Building Construction*. Charotar Publushing House.
- Chakraborty, M. *Civil Engineering Drawing* (Nineth Edition, Bhakti Vedanta Book Trust, 2009)
- Shah, M.G. & Kale, C.M. *Principles of Building Drawing* (Macmillan India Limited, 1993)