

Engineering Drawing

Course Code	Credit Hours
ME-116	1-2

Course Description

This course introduces students to the civil engineering drawing fundamentals. The major components of the course include introduction to different standard drawing tools such as different types of lines and symbols; making of plans, elevations and cross sections of different buildings; orthographic projections; sectional and auxiliary views and isometric drawing. The course involves extensive hand-on training and exercises, where each student prepares his own drawing sheets.

Text Book:

1. Engineering Drawing, by Zahid Ahmed Siddiqui.
2. A First year Engineering Drawing (Latest Edition), by Parkinson, A.C.

Reference Book:

1. Elementary Engineering drawing, by N.D. Bhatt.
2. Engineering Drawing and Introduction to AUTO CAD, by Dhananja.

Prerequisites:

Nil

ASSESSMENT SYSTEM FOR THEORY

	Without Project (%)	With Project/Complex Engineering Problems (%)
Quizzes	15	10-15
Assignments	10	5-10
Mid Terms	25	25
Project	-	5-10
End Semester Exam	50	45-50

ASSESSMENT SYSTEM FOR LAB

Lab Work/ Psychomotor Assessment/ Lab Reports	70%
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Lab Project/ Open Ended Lab Report/ Assignment/ Quiz	10%
Final Assessment/ Viva	20%

Teaching Plan

Week No	Topics/Learning Outcomes
1	Introduction to Civil Engineering Drawing, Drawing Instruments Line types, Dimensions, projection theory, Dimensioning
2	Drawing Types concerning technicality and project execution Lettering.
3	Scales & Lettering and Geometric construction
4	Conceptual Drawing and Projection Systems, Isometric and Orthographic Comparison.
5	Orthographic Projections (First angle projection)
6	Orthographic Projections (third angle projection)
7	Architectural Plan and Elevation of a Simple Building
8	Section of a Simple Building
10-12	Structural Details of a Simple Building
13	Structural Details of a Water Tank of a House
14	Architectural and Structural Details of a boundary Wall and Staircase
15	Plumbing, Sanitation and Roof Drainage Plan of a Simple Building
16	Electrical and HVAC Drawings of a Simple Building
17-18	End Semester Exam

Practical

Experiment No	Description
1	Lettering
2	Scales
3	Orthographic Projections
4	Building Drawing Plan, Elevation & Sections
5	Structural Drawing of Building, Water Tank, Boundary Walls
6	Plumbing and Sanitation Drawings
7	Electrical and HVAC Drawings of simple buildings.