

STRUCTURAL DESIGN LAB

Course Learning Objectives

The objectives of this course are:

- To design 2-D frame analysis and 2-D frame design
- To design steel tabular truss analysis and steel tabular truss design
- To design 3-D frame analysis and 3-D frame design
- To design retaining wall analysis and retaining wall design
- To design tower analysis and simple tower design

COURSE OUTCOMES: After completion of the lab, student can able to

- **Analyze and Design** 2D frame
- **Analyze and Design** steel tabular truss
- **Analyze and Design** 3-Dframe
- **Analyze and Design** retaining wall
- **Analyze and Design** simple tower

EXCERCISES:

1. 2-D Frame Analysis
2. 2-D Frame Design
3. Steel Tabular Truss Analysis
4. Steel Tabular Truss Design
5. 3-DFrameAnalysis
6. 3-DFrameDesign
7. Retaining Wall Analysis
8. Retaining Wall Design
9. Simple Tower Analysis
10. Simple tower Design
11. Analysis of Multistoreyed structure
12. Design of Multistoreyed structure

Software:

1. STAAD Pro or EQUIVALENT

	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2	PSO3
CO1	3	2	2	-	3	-	-	-	-	-	-	1	2	-	2
CO2	3	2	2	-	3	-	-	-	-	-	-	1	2	-	2
CO3	3	2	2	-	3	-	-	-	-	-	-	1	2	-	2
CO4	3	2	2	-	3	-	-	-	-	-	-	1	2	-	2
CO5	3	2	2	-	3	-	-	-	-	-	-	1	2	-	2