

**III Year-II Semester
(20CE6110) Structural Design Lab**

Int. Marks	Ext. Marks	Total Marks	L	T	P	C
15	35	50	-	-	3	1.5

Pre- Requisites: Fundamentals of DRCS

Course 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

EXERCISES:

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

Software:

1. STAAD Pro or EQUIVALENT

Course Outcomes:

S.No	Course Outcomes	BTL
1	Analyze and Design 2D frame	L4
2	Analyze and Design steel tabular truss	L4
3	Analyze and Design 3-D frame	L4
4	Analyze and Design retaining wall	L4
5	Analyze and Design simple tower	L4

Correlation of Cos with POs & PSOs:

	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