

Lesson Plan

Course - Design of RCC Structures Lab(Pr-3)

Semester- 5th

Program- Civil Engineering

Institute - Govt. Polytechnic, Sonpur

Session - 2026-2027

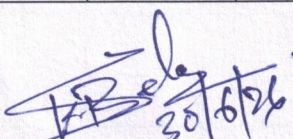
Total Load-60(4/week)

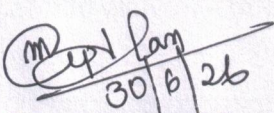
Sl. No.	Week No.	Class No.	Topic to be Covered
1	Week-1	Class-1	AutoCAD – Cross-section of Singly Reinforced RCC Beam
2	Week-1	Class-2	AutoCAD – Stress Diagram of Singly Reinforced RCC Beam
3	Week-1	Class-3	AutoCAD – Strain Diagram of Singly Reinforced RCC Beam
4	Week-1	Class-4	AutoCAD – Completion of Singly Reinforced RCC Beam Drawing
5	Week-2	Class-5	AutoCAD – Cross-section of Doubly Reinforced RCC Beam
6	Week-2	Class-6	AutoCAD – Stress Diagram of Doubly Reinforced RCC Beam
7	Week-2	Class-7	AutoCAD – Strain Diagram of Doubly Reinforced RCC Beam
8	Week-2	Class-8	AutoCAD – Completion of Doubly Reinforced RCC Beam Drawing
9	Week-3	Class-9	Sketch of Isolated Column Footing
10	Week-3	Class-10	Sketch of Combined Column Footing
11	Week-3	Class-11	Sketch of Strap Footing

12	Week-3	Class-1 2	Sketch of Raft Footing
13	Week-4	Class-1 3	Interpretation of RCC Structural Drawings – Beam Reinforcement Details
14	Week-4	Class-1 4	Interpretation of RCC Structural Drawings – Column Reinforcement Details
15	Week-4	Class-1 5	Interpretation of RCC Structural Drawings – Slab Reinforcement Details
16	Week-4	Class-1 6	Interpretation of RCC Structural Drawings – Footing Reinforcement Details
17	Week-5	Class-1 7	Interpretation of RCC Structural Drawings – Staircase Reinforcement Details
18	Week-5	Class-1 8	Interpretation of RCC Structural Drawings – Reinforcement symbols and notations
19	Week-5	Class-1 9	Interpretation of RCC Structural Drawings – Bar bending details
20	Week-5	Class-2 0	Interpretation of RCC Structural Drawings – Consolidated observations
21	Week-6	Class-2 1	Preparation of Reinforcement Checklist – Beam
22	Week-6	Class-2 2	Preparation of Reinforcement Checklist – Column
23	Week-6	Class-2 3	Preparation of Reinforcement Checklist – Slab
24	Week-6	Class-2 4	Preparation of Reinforcement Checklist – Footing
25	Week-7	Class-2 5	Preparation of Reinforcement Checklist – Staircase
26	Week-7	Class-2 6	Verification of reinforcement details with structural drawings
27	Week-7	Class-2 7	Compilation of reinforcement checklist
28	Week-7	Class-2 8	Finalization of reinforcement checklist

29	Week-8	Class-2 9	Site Visit – Reinforcement Detailing of Beams
30	Week-8	Class-3 0	Site Visit – Reinforcement Detailing of Columns
31	Week-8	Class-3 1	Site Visit – Reinforcement Detailing of Staircase
32	Week-8	Class-3 2	Site Visit – Reinforcement Detailing of Footings
33	Week-9	Class-3 3	Site Visit – Observation and recording of reinforcement details
34	Week-9	Class-3 4	Preparation of site observations
35	Week-9	Class-3 5	Preparation of reinforcement detailing report
36	Week-9	Class-3 6	Finalization of site visit report
37	Week-1 0	Class-3 7	STAAD.Pro – Introduction and project setup
38	Week-1 0	Class-3 8	STAAD.Pro – Beam modelling
39	Week-1 0	Class-3 9	STAAD.Pro – Assignment of material and section properties
40	Week-1 0	Class-4 0	STAAD.Pro – Support conditions and loading
41	Week-1 1	Class-4 1	STAAD.Pro – Analysis of Beam
42	Week-1 1	Class-4 2	STAAD.Pro – Interpretation of analysis results
43	Week-1 1	Class-4 3	STAAD.Pro – Beam design
44	Week-1 1	Class-4 4	STAAD.Pro – Review of design output
45	Week-1 2	Class-4 5	STAAD.Pro – Modification of beam model

46	Week-1 2	Class-4 6	STAAD.Pro – Re-analysis of modified beam
47	Week-1 2	Class-4 7	STAAD.Pro – Design verification
48	Week-1 2	Class-4 8	STAAD.Pro – Preparation of design report
49	Week-1 3	Class-4 9	STAAD.Pro – Reinforcement detailing from design output
50	Week-1 3	Class-5 0	STAAD.Pro – Interpretation of reinforcement details
51	Week-1 3	Class-5 1	STAAD.Pro – Preparation of beam drawings
52	Week-1 3	Class-5 2	STAAD.Pro – Finalization of beam design
53	Week-1 4	Class-5 3	AutoCAD – Review and refinement of RCC beam drawings
54	Week-1 4	Class-5 4	Structural drawing interpretation – Consolidated exercise
55	Week-1 4	Class-5 5	Reinforcement checklist – Verification
56	Week-1 4	Class-5 6	STAAD.Pro – Consolidated beam analysis and design
57	Week-1 5	Class-5 7	Compilation of RCC structural drawings
58	Week-1 5	Class-5 8	Compilation of reinforcement checklist and site visit report
59	Week-1 5	Class-5 9	Compilation of STAAD.Pro beam analysis and design output
60	Week-1 5	Class-6 0	Finalization of RCC Structures Laboratory work


 Signature of Faculty
 Civil Engg, GP Sonpur


 Signature of HOD
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