



Design of Reinforced Concrete

Structures

SWAYAM Prabha Course Code – C24

PROFESSOR'S NAME	PROF. NIRJHAR DHANG
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INSTITUTE	Indian Institute of Technology, Kharagpur
Course Outline	Design of reinforced concrete structures is an introductory design course in civil engineering. In this course, basic elements governed by bending, shear, axial forces or combination of them are identified and are considered as building blocks of the whole structure. Different methods of design will be briefly described before introducing the limit states of collapse and serviceability. The design will be done as per IS 456:2000

COURSE DETAILS

S. No	Module ID/ Lecture ID	Lecture Title/Topic
1	L1	Introduction - I
2	L2	Materials
3	L3	Different Methods of Design of Reinforced Concrete Structures
4	L4	Working Stress Method
5	L5	Working Stress Method (Contd...)
6	L6	Limit State of Collapse Flexure
7	L7	Limit State of Collapse Flexure - II
8	L8	Design of Doubly Reinforced Beam Flexure - I
9	L9	Design of Doubly Reinforced Beam Flexure - II

10	L10	Design of Doubly Reinforced Beam Flexure
11	L11	Limit State of Collapse Shear
12	L12	Design for Shear
13	L13	Design for Shear (Contd....)
14	L14	Design of Slabs Part - 1
15	L15	Design of Slabs Part - II
16	L16	Design of Slabs Part - III
17	L17	Design of Slabs Part - IV
18	L18	Design of Slabs Part - V
19	L19	Design of Columns Part - I
20	L20	Design of Columns Part - II
21	L21	Design of Columns Part - III
22	L22	Design of Columns Part - IV
23	L23	Design of Columns Part - V
24	L24	Design of Footings Part - I
25	L25	Design of Footings Part - II
26	L26	Design of Staircases
27	L27	Design for Torsion
28	L28	Design for Torsion Part - II
29	L29	Design of RC Slender Columns
30	L30	Deflection of RC Beams

References if Any: