

Course Type	Course Code	Name of the course	L	T	P	Credit
DP	CEC307	Structural Detailing Laboratory	0	0	2	2

Course Objective
To acquire exhaustive knowledge on design and detailing of various structural components of civil infrastructures.
Learning Outcomes
After studying this course, students should be able to: <ul style="list-style-type: none"> <li>Understand the design and detailing of various members of concrete structures.</li> <li>Develop knowledge on design and detailing of connections and components of steel structures.</li> </ul>

Unit No.	Topics to be Covered	Laboratory	Learning Outcome
1	<b>Sessional-1</b> Design and detailing of singly and doubly reinforced concrete beams.	<b>2</b>	Understand the detailing of reinforced concrete beams
2	<b>Sessional -2</b> Detailing of one way and two-way concrete slabs	<b>1</b>	Acquire knowledge on detailing of one-way and two-way slabs
3	<b>Sessional -3</b> Detailing of staircase	<b>1</b>	Familiar with detailing of staircase
4	<b>Sessional -4</b> Detailing of RC columns and footings	<b>1</b>	Comprehend the detailing of columns and footings
5	<b>Sessional -5</b> Detailing of retaining walls	<b>1</b>	Understand the detailing of retaining wall
6	<b>Sessional -6</b> Detailing of bolted and welded connections of steel structures	<b>1</b>	Knowledge on detailing of various connections of steel structures
7	<b>Sessional-7</b> Detailing of tension and compression members	<b>1</b>	Understand the detailing of tension and compression members
8	<b>Sessional -8</b> Detailing of laced and battened columns	<b>1</b>	Comprehend the detailing of steel columns with lacing and batten
9	<b>Sessional -9</b> Detailing of steel beams and beam-column connections	<b>1</b>	Knowledge on detailing of steel beams and beam-column connections
10	<b>Sessional -10</b> Detailing of column base and gusset base	<b>1</b>	Understand the detailing of column base and gusset base
11	<b>Sessional -11</b> Detailing of roof truss with purlins	<b>1</b>	Grasp the detailing of roof truss with purlins
12	<b>Revision and Evaluation</b>	<b>2</b>	

**Text Books:**

1. Relevant Indian and International Standard codes of practices