

Lesson Plan & Work-done Diary for AY: 2026-27, Odd Semester

Course with Code: Design of Steel Structures / BCV701					Faculty: Dr. Shruthi H G		Semester & Section: 7 th and A sec	
Class No.	Date planned (DD/MM)	Topics to be covered	TLP Planned	Class No.	Date of Conduction (DD/MM)	Topics Covered	TLP Executed	Remarks if any deviation
MODULE-1								
1		Introduction: Advantages and Disadvantages of Steel Structures	ICT					
2		Limit state method Limit State of Strength, Structural Stability, Serviceability Limit states, Failure Criteria of steel	ICT					
3		Design Consideration, Loading and load combinations, IS code provisions, Specification and Section classification.	Chalk & Talk					
4		Plastic Behaviour of Structural Steel: Introduction, Plastic theory,	Chalk & Talk					
5		Plastic Hinge Concept, Plastic collapse load, load factor	Chalk & Talk					
6		Shape factor, Theorem of plastic collapse, Methods of Plastic analysis	Chalk & Talk					
7		Related problems on plastic hinges	Chalk & Talk					
8		Related problems on plastic hinges	Chalk & Talk					

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	MODULE-2							
9		Bolted Connections: Introduction	ICT					
10		Types of Bolts, Behaviour of bolted joints	ICT					
11		Design of High Strength friction Grip (HSFG) bolts	Chalk & Talk					
12		Design of High Strength friction Grip (HSFG) bolts	Chalk & Talk					
13		Design of Simple bolted Connections (Lap and Butt joints)	Chalk & Talk					
14		Design of Simple bolted Connections (Lap and Butt joints)	Chalk & Talk					
15		Design of bracket connections both types	Chalk & Talk					
16		Design of bracket connections both types	Chalk & Talk					

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MODULE 3								
17		Welded Connections: Introduction	ICT					
18		Types and properties of welds, Effective areas of welds, Weld Defects	ICT					
19		Simple welded joints for truss member	ICT					
20		Simple welded joints for bracket connections both types	Chalk & Talk					
21		Advantages and Disadvantages of Bolted and Welded Connections	Chalk & Talk					
22		Design of simple welded Connections & related problems	Chalk & Talk					
23		Design of simple welded Connections & related problems	Chalk & Talk					
24		Design of simple welded Connections & related problems	Chalk & Talk					

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MODULE 4								
25		Design of Tension Members: Introduction, Types of Tension members	ICT					
26		Slenderness ratio, Modes of Failure, Factors affecting the strength of tension members,	ICT					
27		Design of Tension members with Lug angles and related problems	Chalk & Talk					
28		Design of Tension members with Lug angles and related problems	Chalk & Talk					
29		Introduction to Column base, Design of Simple Slab Base	Chalk & Talk					
30		Design of Simple Slab Base and related problems	Chalk & Talk					
31		Design of Gusseted Base	Chalk & Talk					
32		Design of Gusseted Base and related problems	Chalk & Talk					

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MODULE 5								
33		Design of Compression Members: Introduction, Failure modes, Behaviour of compression members	ICT					
34		Sections used for compression members, Effective length of compression members,	ICT					
35		Design of compression members and built up Compression members,	Chalk & Talk					
36		Design of compression members and related problems	Chalk & Talk					
37		Design of compression members and related problems	Chalk & Talk					
38		Design of Laced and Battened Systems.	Chalk & Talk					
39		Design of Laced and Battened Systems and related problems	Chalk & Talk					
40		Design of Laced and Battened Systems and related problems	Chalk & Talk					

Course with Code: Design of Steel Structures-IPCC (BCV701)					Faculty: Dr. Shruthi H G		Semester & Section: 7 th and A sec	
Class No.	Date planned (DD/MM)	Topics to be covered	TLP Planned	Class No.	Date of Conduction (DD/MM)	Topics Covered	TLP Executed	Remarks if any deviation
1		Design a bolted connection using MS Excel	ICT					
2		Design a welded connection using MS Excel	ICT					
3		Design of tension members using MS Excel	ICT					
4		Design of compression members using MS Excel	ICT					
5		Design of simple slab base using MS Excel	ICT					
6		Design of gusseted base using MS Excel	ICT					
7		Draw the following using AutoCAD. Column bases and Gusseted bases with bolted and welded connections	ICT					
8		Draw the following using AutoCAD. Roof Truss – Welded and Bolted	ICT					
9		Draw the following using AutoCAD. Roof Truss – Welded and Bolted	ICT					

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10		Draw the following using AutoCAD. Connections – Beam to beam, Beam to Column by Bolted and Welded Connections	ICT					
11		Draw the following using AutoCAD. Built-up Columns with lacings and battens	ICT					
12		Draw the following using AutoCAD. Built-up Columns with lacings and battens	ICT					
13		Drawing of Gantry Girder for the given data using AutoCAD	ICT					
14		Drawing of Gantry Girder for the given data using AutoCAD	ICT					
15		Drawing of Welded Plate girder for the given data using Auto CAD	ICT					
16		Drawing of Welded Plate girder for the given data using Auto CAD	ICT					

	Activity	Planned	Actual	Remarks
1	Theory Classes	56		
2	Assignments (Individual/Group)	02		
3	Quizzes (SRS/MS Forms)	05		
4	Tutorials/ Extra classes	-		
5	Internal Assessments	03		
6	ICT based Teaching. (% of usage in Curriculum)	20%		
Planning			Execution	
Faculty Signature:			Faculty Signature:	
HoD Signature:			HoD Signature:	