

**TENTATIVE TEACHING PLAN (THEORY)**Department: **Civil Engineering**Name of Teacher: **Engr. Jawaid Kamal Ansari**Subject: **Structural Analysis**Course Code: **CE306**Batch: **F-16CE-C**Year: **3rd**Semester: **1st (5th)**Semester Starting Date: **15-10-18**Semester Suspension Date: **06-02-2019****Course Learning Outcomes (CLOs):** Upon successful completion of the course, the student will be able to:

CLO	Description	Taxonomy Level	PLO
1	Have Basic Understanding of Determinate and Indeterminate Structures.	C2	1
2	Determine Deflections and Slopes of Beams, Frames and Trusses.	C3	1
3.	Analyze Structures by Conventional Analytical and Modern Matrix methods.	C4	2

S #	Topic	CLO	No: of lectures
1.	Introduction to the Subject	C2	1
2.	Determinate and Indeterminate Structures	C2	1
Double Integration Method			
3.	Introduction and derivation of formula.	C3	1
4.	Slope and deflection of cantilever & simply supported Beams	C3	2
5.	Slope and deflection of beams with distributed loadings	C3	2
6.	Maximum deflection of Beams	C3	1
Moment Area Method			
7.	Derivation of theorems of Moment Area Method	C3	1
8.	Moment Area Method for cantilever & simply supported beams	C3	2
9.	Moment area method for overhanging beams	C3	2
10.	Introduction to "Moment by Parts Method"	C3	1
Conjugate Beam Method			
11.	Introduction to conjugate beam method and conjugate supports.	C3	1
12.	Problems on cantilever and simply supported beams	C3	2
13.	Problems on overhanging beams	C3	2
Unit Load Method			
14.	Introduction and derivation of formula	C3	1
15.	Slope and deflection of simple beams with multiple loadings	C3	2
16.	Slope and deflection of frames	C3	2
Three Moment Equation			
17.	Introduction and derivation of formula	C4	1
18.	Problems of continuous beams	C4	2
19.	Shear force and bending moment diagrams of continuous beams	C4	1
Moment Distribution Method			
20.	Introduction to the Moment Distribution Method	C4	1
21.	Problems of continuous beams	C4	2
22.	Problems of frames	C4	1
Slope Deflection Method			
23.	Introduction and derivation	C4	1
24.	Problems on continuous beams	C4	1
25.	Problems on Frames	C4	1

S #	Topic	CLO	No: of lectures
Matrix Method of Analysis			
26.	Introduction to matrix stiffness method	C4	1
27.	Formation of element stiffness matrix for truss, beam and frame element	C4	2
28.	Deformation and Force transformation matrix	C4	2
29.	Structures stiffness matrix for truss, beam and frame elements,	C4	2
30.	Analysis of indeterminate structure using stiffness method.	C4	3
TOTAL			45

Signature of Teacher:

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Dated: 2-11-18

Remarks of DMRC:

Approved

Signature of Chairman

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Dated: