

## MICRO LESSON PLAN

### CE 2302 - STRUCTURAL ANALYSIS I

Week	Hrs	Lecture Topics	Book
<b>UNIT I DEFLECTION OF DETERMINATE STRUCTURES</b>			
I	1-3	Principle of virtual work for deflections	T1. Vol.1
	4-5	Deflection of pin-jointed plane frames	
II	6	Deflection of pin-jointed plane frames	
	7-10	Deflection of rigid plane frames	
III	11-12	Willot diagram- Mohr's correction	
<b>UNIT II - MOVING LOADS AND INFLUENCE LINES</b>			
III	13-15	Influence lines for reactions in statically determinate structure	T1. Vol.2
IV	16-17	Influence lines for members forces in pin-jointed frames	
	18-20	Influence lines for shear force and bending moment in beam sections	
V	21	Calculation of critical stress resultants due to concentrated and distributed moving loads-Mullers Breslau's principle	
	22-23	Influence lines for continuous beams and single storey rigid frames	
	24	Indirect model analysis for influence lines of indeterminate structures-Beggs defometer	
<b>UNIT III - ARCHES</b>			
V	25	Arches as structural forms-Examples of arch structures	T1 Vol.2
VI	26-29	Types of archs-Analysis of three hinged arches	
	30	Analysis of two hinged arches	
VII	31	Analysis of two hinged arches	
	32-34	Analysis of fixed , parabolic and circular arches	
	35	Settlement and temperature effects	
VIII	36	Settlement and temperature effects	
<b>UNIT IV -SLOPE DEFLECTION METHOD</b>			
VIII	37-40	Continuous beams and rigid frames(with and without sway)	T1 Vol.1
IX	41-43	Continuous beams and rigid frames(with and without sway)	
	44-45	Symmetry and antisymmetry	
X	46	simplification for hinged end	
	47-48	support displacements	
<b>UNIT V - MOMENT DISTRIBUTION METHOD</b>			
X	49	Distribution and carry over of moments	T1 Vol.2
	50	Stiffness and carry over factors	
XI	51-54	Analysis of continuous beams	
	55	Plane rigid frames with and without sway	
XII	56-59	Plane rigid frames with and without sway	
	60	Naylor's simplification	