

VEER SURENDRA SAI UNIVERSITY OF TECHNOLOGY, BURLA

Semester: 2ND

LESSON PLAN

Subject STRUCTURAL MECHANICS II

Session: Jan 2017 – May 2017

Theory / Sessional

Branch/Course: Architecture

Name of the Faculty Member: Er. SANCHITA BEHERA

Period	Module/ Number	Topic to be covered	Remarks/ Sign. of Faculty Member
02	1	Theory of simple bending, Introduction, pure bending and ordinary bending, assumptions derivation of flexure formula section modulus	
03		Numerical on flexure equation	
04		Shear stresses in beams, Introduction, derivation of shear stress formula	
05		shear stress distribution for standard shapes like rectangle, circle	
06		shear stress distribution for standard shapes like triangle I.T.L.C sections, Numerical	
07		Direct & Bending Stresses, Introduction, stress distribution of eccentrically loaded column, middle third rule, core or Kernel of section	
08		stress distribution for column with one axis eccentricity, two axis eccentricities, Numerical	
09	2	Deflection-I, Introduction of slope & deflection	
10		slopes and deflections for cantilever beams with point load using double integration method & moment area methods	
11		slopes and deflections for cantilever beams with UDL using double integration method & moment area methods	
12	3	Deflection-II, Introduction of Maculay's method, slopes and deflections,	
13		simply supported beams with point load & udl's double integration & Macaulay's method	
14		Fixed beams: Introduction, Advantages and disadvantages of fixed beams over simply supported beams	
15		SFD and BMD for fixed beams with combination of point loads & udl's	
16	4	Propped cantilevers Introduction, Reaction of a prop. Cantilevers with Udl's point loads, prop, at end & at intermediate positions,	
17		slope & deflection of Propped cantilevers	
18		Welded joints, Introduction, Advantages and disadvantages of welded joints, types	
19		strength of fillet welds, design of welded joint for plates and unsymmetrical sections for axial loading	

Signature of the Faculty Member :

Date:
H.O.D.

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