



VEER SURENDRA SAI UNIVERSITY OF TECHNOLOGY

LESSON PLAN

Semester >>2nd		Year >> 2015	Contact Hours per week >>4
ENGINEERING MECHANICS		Branch >> Information Technology	Total Credit >>4
			DAY
			Monday, Tuesday, Wednesday, Saturday
TEACHER		Ms.Janaki Dehury	
Period		Jan 2015-April 2015	
Recommended books >>		<p>Text book:</p> <ol style="list-style-type: none"> 1. Engineering mechanics: S Timoshenko & Young; 4th Edition (international edition) MC Graw Hill. <p>Reference books:</p> <ol style="list-style-type: none"> 1. Fundamental of Engineering mechanics (2nd Edition): S Rajesekharan & G ShankaraSubramanium; Vikas Pub.House Pvt Ltd. 2. Engineering mechanics: K.L. Kumar; Tata MC Graw Hill. 	
Sl. No.	Lecture No.	Topics to be covered	
MODULE -I			
1	Lecture-01	Introduction of Engineering Mechanics, Types of forces	
2	Lecture-02	System of forces: Concurrent & Coplanar forces ,	
3	Lecture-03	Composition of forces: Parallelogram law , Triangle law & Polygon law	
4	Lecture-04	Resolution of forces, law of transmissibility, law of Superposition, Free Body Diagram	
5	Lecture-05	Equilibrium of concurrent coplanar forces, Lami's theorem	
6	Lecture-06	Method of projection	
7	Lecture-07	Problem solving	
8	Lecture-08	Method of moment, basic theory and numericals	
9	Lecture-09	Friction: Types, Basic theory	
10	Lecture-10	Related numericals of Friction	
11	Lecture-11	Parallel forces on a plane, General case of parallel forces	
12	Lecture-12	Center of parallel forces and center of gravity: Pappus theorem	
13	Lecture-13	Centroid of composite plane figure and curves & related problems	

MODULE -II		
14	Lecture-14	Composition and equilibrium of forces in a plane
15	Lecture-15	Plane trusses: Basic theory
16	Lecture-16	Problems using Method of joints
17	Lecture-17	Problems using Method of sections
18	Lecture-18	Principle of virtual work: Basic theory
19	Lecture-19	Numericals related to Virtual Work
20	Lecture-20	Moment of inertia: Plane figure with respect to an axis in its plane and perpendicular to the plane
21	Lecture-21	Perpendicular axis theorem& related problems
22	Lecture-22	Parallel axis theorem& related problems
23	Lecture-23	Doubt clearing class
MODULE-III		
24	Lecture-24	Rectilinear Translation: Kinematics, Principle of dynamics
25	Lecture-25	D'Alembert's Principle Basic theory and numericals
26	Lecture-26	Impulse and Momentum: Basic theory and numericals
27	Lecture 27	Work and energy, Conservation of Energy, Basic theory and problems
28	Lecture 28	Impact: types, coefficient of restitution
29	Lecture 29	Basic theory and numerical related to impact
MODULE-IV		
30	Lecture 30	Curvilinear translation: Kinematics, Equation of motion
31	Lecture 31	Moment & Momentum
32	Lecture 32	Projectile motion Basic theory
33	Lecture 33	Numerical related to projectile
34	Lecture-34	D'Alembert's principle of curvilinear motion
35	Lecture-35	Kinematics of rotation of rigid body
36	Lecture-36	Numerical problem related to rotation of rigid body
37	Lecture-37	Class-Test
38	Lecture -38	Brief Review & discussion
39	Lecture -39	Revision & Clarification of Doubts
40	Lecture -40	

Signature of Teacher