VEER SURENDRA SAI UNIVERSITY OF TECHNOLOGY
LESSON PLAN

Semester >>2nd	Year >> 2015	Contact Hours per week >>4
ENGINEERING MECHANICS	**Branch >>** **Metallurgical & Materials Engineering**	**Total Credit >>4**
		DAY
		Monday, Thursday,Friday,Saturday
TEACHER	**Mrs Sunita Singh Naik**	
Period	**Jan 2015-April 2015**	
Recommended books >>	**Text book**: 1. Engineering mechanics: S Timoshenko & Young; 4th Edition (international edition) MC Graw Hill. **Reference books**: 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 numericals 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