Course no : CE-101
Course Title : Analytic Mechanics

Credits : 3.00 credits
Contact/class : 3 hrs/week
Total marks : 300

Course outline :

Coplaner and non-coplaner force systems; moments; analyses of two dimensional frames and trusses; friction; flexible chords; centroids of lines, areas and volumes; moments of inertia of areas and masses; plane motion; principles of work and energy; impulse and momentum; virtual work principle for rigid bodies.

Course Teachers :

Dr. Abu Siddique, Professor, Civil Engg. Dept.
Two classes per week
Dr. Sarwar Jahan Md. Yasin, Professor, Civil Engg. Dept.
One class per week

Assessment tools:

Attendance	-	10%	30 marks
Class test	-	20%	60 marks
(best 3 out of 4 class test will be counted)			
Final exam	-	70%	210 marks
Section A & Section B each 105 marks			

Lecture Plan
(Dr. S J M Yasin)

Sl. No.	Topic	No. of class
1	Plane motion	2
2	Rotation and Plane Motion of Rigid Bodies	2
3	**Class test**	1
4	Work, Kinetic energy, Power	3
5	Impulse and Momentum	3
6	**Class test**	1
7	Principles of Virtual Work	2
	Total =	**14**

Books :

Analytic Mechanics :
Virgil Moring Faires & Sherman Daniel Chambers
(Ch. XIII, XVII, XVIII, XIX)

Engineering Mechanics :
S. Timoshenko & D H Young
(Ch.5 - Principle of virtual work)

Engineering Mechanics (Statics and Dynamics) :
Irving H Shames
(Ch.10 - Introduction to variational mechanics - statics)