

BA141 Engineering Mechanics I

COURSE INFORMATION

Prerequisites	Academic Year & Level		Teaching Methods			Credit Hrs.	
	Year	Semester	Lecture	Tutorial	Lab.		
None	-	1	1	2	2	0	3

COURSE AIM

The aim of the course is to provide the student with an introduction to many of the fundamental concepts in mechanics, it forms a suitable basis for the design and analysis of many types of structural, mechanical, or electrical devices encountered in engineering.

COURSE WEEKLY CONTENTS

- 1 Rectangular components of forces
- 2 Equilibrium of a particle – springs and cables
- 3 Equilibrium of a particle – springs and cables(Cont.)
- 4 moment of forces
- 5 Free body diagram
- 6 Equilibrium of a rigid body
- 7 Midterm Exam
- 8 Trusses (joint method – zero – force members)
- 9 Trusses (method of sections)
- 10 Frames
- 11 Frames (cont.)
- 12 12th Assessment
- 13 Friction
- 14 Mass moment of inertia
- 15 Virtual work

STUDENT GRADING & ASSESSMENT

Weeks	Exams	Assign.	Quizzes	Reports	Present.	Lab.	Total
1 to 7	20 Midterm	←	1 0	M A R K S		→	30
To be freely distributed among possible assessments							
8 to 12	←		2 0	M A R K S		→	20
13 to 15	←		1 0	M A R K S		→	10
16 or 17	40 Final						40
Total	Exams	Assign.	Quizzes	Reports	Present.	Lab.	100

REFERENCES

Textbook R.C. Hibbeler “Engineering Mechanics Statics ” 14th. edition, Pearson, 2017.
 Other