

Course outline for 103 Physics (Mechanics)

Text book:

Physics for Scientists and Engineers
6th Edition
Raymond A. Serway

Chapter	Title	Section	Hours	Exercises and problems
1	Physics and measurement	1.1, 1.4, 1.5	2	13,15,21,25,31
2	Motion in One Dimension	2.1, 2.2, 2.3, 2.5, 2.6	4	4,5,11,15,16,20,21,22,23,25,27,28,29,32,33,40,42,43,46,48,51,52
3	Vectors	3.1--to--3.4	4	1,4,19,21,27,30,31,33,39,49,50
4	Motion in Two Dimensions	4.1--to--4.5	4	1,3,5,6,8,14,15,17,19,20,22,23,25,29
5	The Laws of Motion	5.1--to--5.8	6	3,7,11,16,18,24,25,26,28,30,31,37,41,44,45,46,68
6	Circular Motion and Other Applications of Newton's Laws	6.1	2	1,2,5,7,59
7	Energy and Energy Transfer	7.2--to--7.8	4	1,4,7,13,14,15,16,19,21,24,25,26,28,31,32,33,35,37,40
8	Potential Energy	8.1--to--8.5	4	2,5,6,11,13,17,31,33,36,38,42,55,57,59,60
9	Linear Momentum and Collisions	9.1--to--9.4	5	1,2,4,5,7,8,9,10,13,15,16,17,18,21,25,27,32,33,35
10	Rotation of a Rigid Object About a Fixed Axis	10.1--to--10.8	6	1,3,5,6,8,12,13,16,17,18,20,21,31,35,37,46,70,71

Marks distribution:

- 1) Two midterm exams each 15 marks-----= 30 marks
- 2) Practical work (Lab.)-----= 30 marks
- 3) Final exam-----= 40 marks

Total-----= 100 marks

N.B. *The students must know how to solve these suggested exercises and problems in addition to all the examples under the supervision of the teacher.*