

Dynamics

Topics

1. Kinematics of particles (8 hours).....Exercise-1 (20 points)
 - Rectilinear motion
 - Curvilinear motion
 2. Kinetics of particles (9 hours).....Exercises 2 and 3 (40 points)
 - Newton's second law
 - Energy method
 - Impulse and momentum method
 3. Systems of particles (8 hours).....Exercise-4 (20 points)
- Midterm 1 (400 points)**
4. Plane kinematics of rigid bodies (10 hours)..... Exercise-5 (20 points)
 5. Plane kinetics of rigid bodies (9 hours)..... Exercise-6 (20 points)
 - Forces and accelerations
 - Energy method
 - Impulse and momentum method

Midterm 2 (480 points)

Total Grade =1000 points

Total sessions = 32 sessions

Total hours =48 hours

More than 8 hours absence means withdrawal from the course.

50 bonus points are considered for attendance.

References

1. J.L. Meriam and L.G. Kraige, Dynamics, 6th Ed.
2. F.P. Beer, E.R. Johnston, D.F. Mazurek, Ph.J. Cornwell, and E.R. Eisenberg, Dynamics, 9th Ed.