

MASSACHUSETTS INSTITUTE OF TECHNOLOGY
Classical Mechanics 6.946, 8.351, 12.620

Week 4:

Assignment: Due 4 October 2002

Exercises: 2.1, 2.2, 2.3a, 2.3b, 2.4, 2.5, 2.6

The project on the double pendulum, exercise 1.36,
is also due 4 October 2002.

Read: Section 1.8

8: Conserved quantities

Read: 2.1, 2.2, 2.3, 2.4, 2.5

9: Kinematics of rigid bodies, Moments of inertia

Read: 2.6, 2.7

10: Generalized coordinates for rigid bodies

Week 5:

Assignment: Due 11 October 2002

Exercises: 2.11, 2.12, 2.13

Begin project 2.21, on the rotation of Mercury, which
will be due on 18 October 2002.

Read: 2.8, 2.9

11: Motion of a free rigid body

Read: 2.10

12: Axisymmetric top

Read: 2.11, 2.12

13: Spin-orbit coupling

Week 6:

Assignment: Due 18 October 2002

Exercises: 3.1, 3.3, 3.4, 3.5, 3.6

Read: 3.1 up to 3.1.1

14: Hamilton's equations

Read: 3.1.1

15: Legendre transformation