

# PHYS 201 – Mechanics

**Semester:** Fall 2005  
**Instructor:** Alper Kiraz  
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**Office Hours:** Tu, B1 9:30 – 10:45 or by appointment  
**Lecture Hours:** Mo, We B1 – 9:30 – 10:45  
**Room:** Eng. B16

**Course Description:** Kinematics and dynamics of particles; Newton's laws of motion; conservation laws; oscillations; gravitation; central forces; planetary motion; dynamics of rigid bodies; non-inertial reference frames.

**Textbook:** Classical Dynamics of Particles and Systems, Fifth Edition, Thornton, Marion, 2004 Brooks/Cole. ISBN: 0-534-40896-6

**Grading:** 1<sup>st</sup> Midterm 25%, (Nov. 16, 2005)  
2<sup>nd</sup> Midterm 25%, (Dec. 28, 2005)  
Homework 20%  
Final 30% (to be announced)

**Homework Policy:** You may discuss the problems, consult your teachers and use the library and internet. However, the final submitted work should be totally yours. You must not submit work done in groups, transfer files or copy from a book.

## Lecture Schedule:

Week		Subject
1	Sep. 26	Matrices, Vectors and Vector Calculus (Ch. 1)
2	Oct. 3	Matrices, Vectors and Vector Calculus (Ch. 1)
3	Oct. 10	Matrices, Vectors and Vector Calculus (Ch. 1) / Newtonian Mechanics-Single Particle (Ch. 2)
4	Oct. 17	Newtonian Mechanics-Single Particle (Ch. 2)
5	Oct. 24	Newtonian Mechanics-Single Particle (Ch. 2)
6	Oct. 31	Oscillations (Ch. 3) / Holiday
7	Nov. 7	Oscillations (Ch. 3)
8	Nov. 14	Oscillations (Ch. 3) / MT 1
9	Nov. 21	Gravitation (Ch. 5)
10	Nov. 28	Gravitation (Ch. 5)
11	Dec. 5	Gravitation (Ch. 5) / Central-Force Motion (Ch. 8)
12	Dec. 12	Central-Force Motion (Ch. 8)
13	Dec. 19	Central-Force Motion (Ch. 8)
14	Dec. 26	Motion in a Noninertial Reference Frame (Ch. 10) / MT2
15	Jan. 2	Motion in a Noninertial Reference Frame (Ch. 10)
16	May. 23	Motion in a Noninertial Reference Frame (Ch. 10) / Overview