Boğaziçi University
Department of Physics

Phys 311/407 Summer 2013

Modern Physics I – Advanced Quantum Physics I

Instructor: Prof. Dr. Taylan Akdoğan

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Course schedule: TT23 NH303 , FF34 KBZ01 , FF78 KB316

Course page: Can be accessed through "http://web.boun.edu.tr/akdogan/". Problem sets, general course information and other announcements will be distributed though this page.

About the course: Modern Physics with an emphasis on physical thinking and order of magnitude estimates. The subjects covered by the first part of this two-term course will include the special theory of relativity, applications of the Schrödinger equation, and the hydrogen atom.

Prerequisites: PHYS 202.

Required text: *Modern Physics from α to Z^0* by Rohlf (Wiley, 1994)

Recommended text: *Modern Physics* by Bernstein, Fishbane, and Gasiorowicz (Prentice Hill, 2000)

Recommended text: *The Feynman Lectures on Physics* by Feynman, Leighton, and Sands (Addison Wesley).

Attendance: I expect you to come to class regularly and on time. You should be prepared to discuss the textbook material and to have worked on the assigned homework problems. I reserve the right to adjust your final course score up or down by a grade step based on the quality and extent of your contributions.

Homework: This will be a significant part of the learning process for this class. There will be total of 10 problem sets (in 6 weeks). The problem sets will not be graded, however I strongly urge you to work on these. The solutions will be discussed briefly during the lecture and then, posted on the course page.

I encourage you to work collaboratively on the problems. Do not be shy about coming to me for help with the homework.

Exams: There will be one 60-minute midterm and a 120-minute final exam. All exams will be closed book/closed notes. Calculators are neither needed nor allowed.

Grading: The **tentative** weights that will determine the cumulative grade are as follows:

	Contribution
Midterm	40%
Final	60%

The final grades will be determined according to the distribution of cumulative grades and the classroom contributions.