

Physics 402 Fall 2011

Prof. Steve Rolston

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Office: Computer Space Sciences 2215

Office hours: W: 12:00- 1:00, drop-ins encouraged.

Course Goals

To learn further foundations and applications of quantum mechanics. We will primarily cover the 2nd half of *Griffiths* (Chaps. 5-11) but will also spend time on modern applications including quantum information, band structure, superfluidity, Bose-Einstein condensation, and whatever else we find interesting.

Class Schedule

Room: PHYS 0405

Hours: M10-10:50, W: 10 - 11:50, F 10 - 10:50

Credits: 4

Prerequisites

PHYS 401, and PHYS 374, and MATH 240. Credit will be granted for only one of the following: PHYS 402 or former PHYS 422.

Required Text

David Griffiths, Introduction to Quantum Mechanics 2nd Edition (ISBN: 0- 13-111892-7).

Course Website

<http://elms.umd.edu>

Homework

Assignments will be posted on ELMS approximately weekly, due in one week, hardcopy in class. Collaboration is encouraged, but copying is not, and will not help you learn. Your lowest homework grade will be dropped.

Exams

Quiz: there will be ~ 4 quizzes held in the second hour of alternate Wednesdays. You will drop the lowest grade, so there will be no make-ups.

Mid: There will be two mid-term exams in early October and mid November. The second will most likely be a take-home exam.

Final: the final exam will be on Dec. 21 at 8:00 AM.

All exams will be open book and open notes.

Grades

Homework: 25 %

Quizzes: 20%

Mid-terms : 30%

Final: 25%

Tips for Doing Well

Read the book - it is relatively well-written.

Do the homework - feel free to work with classmates, but do work the problems yourself. Ask questions - if you do not understand it, chances are some of your classmates do not as well.

Come to lectures - much of the material is not going to be in the book, or will be presented in a different way.

Academic Dishonesty

The University of Maryland has a nationally recognized Code of Academic Integrity, administered by the Student Honor Council. This Code sets standards for academic integrity at Maryland for all undergraduate and graduate students. You are responsible for upholding these standards. Failure to do so can result in a "XF" grade denoting "failure due to academic dishonesty."