

# Syllabus for PHY 521 Spring 2016

## Introduction to Quantum Mechanics II

Class schedule: M W F 11:00–11:50, CP 287  
Instructor: Christopher B. Crawford  
CP 373, 257-2504, [crawford@pa.uky.edu](mailto:crawford@pa.uky.edu)  
Office hours: by appointment  
Homepage: [http://www.pa.uky.edu/~crawford/phy521\\_sp16](http://www.pa.uky.edu/~crawford/phy521_sp16)  
Textbook: David J. Griffiths, “Introduction to Quantum Mechanics,” (required)  
Stephen Gasiorowicz, “Quantum Physics,” (recommended)  
Prerequisites: PHY 520

**Course Description** A continuation of PHY 520 introducing the quantum description of systems with spin and approximation methods. Principles of quantum mechanics will be illustrated by their application to model systems selected from the fields of atomic, solid state, nuclear, and particle physics.

**Office Hours** I am committed to helping you succeed if you are willing to do the necessary work. I have an open door policy; come by my office and discuss physics at anytime unless my door is closed (for a phone conference or approaching deadline). Please turn off cell phones and text messaging while in my office. I expect you to read the textbook and attend class before coming to my office. I will hold an optional one hour problem-solving session each week in my office.

**Class Attendance and Reading Journals** There is no credit for attendance; however, students are responsible for all reading assignments and any material discussed in class. Reading journals will be optional this semester. They may be turned in for evaluation during midterm and final exams. A consistent and detailed reading journal will have a positive affect on a border-line final grade.

**Homework** The weekly homework will assigned seven days before it is due. It will include 50% credit (ungraded) from the Griffiths text and 50% (graded) special problems. Homework solutions will be posted to the website. Students are encouraged to study and discuss homework together and a class list will be circulated the first day of class to facilitate this; however students must turn in their own work as part of academic integrity.

**Exams** There will be one midterm exam and a cumulative final exam. Both exams are closed book, with an  $8\frac{1}{2} \times 11$  in<sup>2</sup> formula sheet allowed. The midterm will be scheduled during one evening of midterm week to allow for extra time.

**Grading** Arrangements must be made with the instructor before the due date in order to receive a homework extension. Exams will only be rescheduled for officially excused absences. Extra credit will be awarded for finding new errors in the textbook, or solving special questions posed during class. The following table shows the percentage range to guarantee each letter grade, but the instructor may upgrade the final grade based on effort, class participation, and the reading journal.

**Grade breakdown**

homework assignments	40%
midterm exam	25%
final exam	35%

**Letter grade**

A	85–100%
B	70–85%
C	55–69%
D	40–54%
E	00–39%

**Academic integrity** Copying homework or exams from people, solution manuals, online, or any other source is plagiarism and will not be tolerated. University policies and procedures regarding cheating and other academic conduct will be strictly adhered to and can be reviewed at [www.uky.edu/StudentAffairs/Code](http://www.uky.edu/StudentAffairs/Code).

**Course evaluation** Course evaluations are an important component of our department's instructional program. We value your feedback on both the course content and instructor. We will use the standard university TCE eXplorance Blue (<http://www.uky.edu/eval>) to collect evaluations via your computer, tablet, or smart phone. You will receive an reminder email near the end of the semester with instructions. We would also appreciate immediate feedback at [http://www.pa.uky.edu/~crawford/phy521\\_sp16/feedback.html](http://www.pa.uky.edu/~crawford/phy521_sp16/feedback.html) and will address issues or incorporate suggestions into the course in a timely manner.

**Academic accommodations due to disability** If you have a documented disability that requires academic accommodations, please see me as soon as possible during scheduled office hours. In order to receive accommodations in this course, you must provide me with a Letter of Accommodation from the Disability Resource Center, <http://www.uky.edu/StudentAffairs/DisabilityResourceCenter>, for coordination of campus disability services available to students with disabilities.

See <http://www.ms.uky.edu/~shenz/ma113/ServicesAvailableToUKStudentsF12.pdf>  
or <http://uksga.org/resource-cheat-sheet> for student resources.