



**Course:** Physics 311  
**Term:** Fall, 2015  
**Room:** Space Science 106  
**Class:** MWF. 9:00-9:50

## INSTRUCTOR CONTACT INFORMATION

**Instructor:** Randall Hulet  
**Office:** BRK 391  
**Email:** randy@rice.edu  
**Office Hours:** By appointment

## COURSE OBJECTIVES AND LEARNING OUTCOMES

Physics 311 is the first semester of an advanced undergraduate course in quantum mechanics. Students are expected to have a basic understanding of solutions of differential equations, the mathematics of linear algebra, and eigenequations. Topics include spin-1/2 systems, wave mechanics, the addition of angular momentum, Bell's inequalities, and central forces, including the hydrogen atom. Students are expected to learn these topics and to solve related homework and examination problems.

## REQUIRED TEXTS AND MATERIALS

"A Modern Approach to Quantum Mechanics, 2nd ed.", by John S. Townsend

## EXAMS AND PAPERS

There will be a mid-term and a final exam.

## GRADE POLICIES

Grades will be based on weekly problem sets (35%), mid-term exam (30%), final exam (30%), and class participation (subjective) (5%). Lectures will be supplemented with in-class problem sessions led both the Professor and the students.

I encourage you to work together on problem sets as discussion can be very helpful. However, copying a solution from any source, including your classmates, material from previous years, or an answer book, is not helpful and is a violation of the honor code. The exams will be open text book (Townsend) and notes, but are to be done independently, without discussion.

## LATE HOMEWORK POLICIES

Problem sets are due at 9 am on the due date. One problem set will be accepted late, without question, as long as it is submitted by the start of the next class period.

## RICE HONOR CODE

In this course, all students will be held to the standards of the Rice Honor Code, a code that you pledged to honor when you matriculated at this institution. If you are unfamiliar with the details of this code and how it is administered, you should consult the Honor System Handbook at <http://honor.rice.edu/honor-system-handbook/>. This handbook outlines the University's expectations for the integrity of your academic work, the procedures for resolving alleged violations of those expectations, and the rights and responsibilities of students and faculty members throughout the process.

## DISABILITY SUPPORT SERVICES

If you have a documented disability or other condition that may affect academic performance you should: 1) make sure this documentation is on file with Disability Support Services (Allen Center, Room 111 / [adarice@rice.edu](mailto:adarice@rice.edu) / x5841) to determine the accommodations you need; and 2) talk with me to discuss your accommodation needs.