PHYS3701 Introduction to Quantum Mechanics I Spring 2024

This course will teach you both how to "do" and to "understand" Quantum Mechanics, at least so far as the latter is possible. You'll also have a lot of fun.

INSTRUCTOR: Jim Napolitano email: tuf43817@temple.edu
Office Hours: Fridays 2-4pm in SERC 404 *or by appointment*

ASSISTANT: Jose Mendez-Guerra email: jose.mendez-guerra@temple.edu

GRADING: Kajal Rabari email: kajal.rabari@temple.edu

WEB PAGE: https://www.cst.temple.edu/~tuf43817/PHYS3701/

MEETINGS: SERC 456 Tue 12:30-1:50, Thu 12:30-1:50 (Lecture)

I will not be following any particular textbook, and none are required for the course, but see the website for links to a good undergraduate text by Townsend, and also books from me on graduate level Quantum Mechanics and on basic mathematical concepts on Physics, as well as a reference I like on Quantum Computing & Information. Please also see the course web page for additional information, including links for the following:
◦ Homework Assignments, due every Tuesday (except the first lecture), at the start of class.
◦ Solutions to the weekly quizzes.
◦ Links to other potentially useful information.

Most Thursday classes will begin with a 15-minute quiz, for which you can use your book or other materials, but which you must complete on your own. I will post the quizzes and solutions on the course web page some time after the quiz is given. A final exam will be given at the assigned time during finals week.

I need to do some traveling this semester, so a few classes will be held over Zoom. I will get you the Zoom link well ahead of the scheduled class time.

GRADING POLICY

Your course grade will be determined by the homework (30%), quizzes (40%), and final exam (30%). Cutoffs for course grades A, B, and C are 90%, 80%, and 70%, respectively. I expect to make some use of "grade modifiers", that is $\pm$ after the grade. I may make other adjustments to the overall grading scheme if there are special circumstances.

LEARNING OUTCOMES

You will learn the peculiar intricacies of Quantum Mechanics, as well as how to do various calculations using approaches based on linear algebra, differential equations, or both. You will also get some exposure to the field now known as Quantum Computing.

ACADEMIC INTEGRITY STATEMENT

Put simply, don't copy someone else's homework, and don't cheat on the quizzes or final exam. If I suspect you of either, I will ask for an explanation. If your explanation is unsatisfactory, you will be given a grade of zero and reported to the College. If this happens more than once, you will be given an F for the course.