

Basic Quantum Mechanics, Physics 3316, Fall 2022

General Information

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Textbooks and Materials

1. Introduction to Quantum Mechanics, by David Griffiths, latest edition, Main text
2. An Introduction to Quantum Physics, by French and Taylor, Supplementary text.

Physics 3316 a first course in Quantum Mechanics, where the emphasis is more on developing the basic formalism and its interpretation, with some important canonical systems worked out. The next semester 3317 emphasizes more applications and phenomenology. The course follows a lecture, recitation, format according to the following pattern.

Lectures MWF 9:05, Clark Hall 294D

Syllabus I do not have day by day syllabus, since from experience this changes semester to semester. What is definite is that we will cover the first 5 chapters of Griffiths, and essentially all sections. Each week a suggested reading assignment will be indicated on the homework, and this is the main indication of where we are in the book. It should be very clear where we are up to in the book. **Only the sections covered in lecture will be on the exams.**

Recitation Section TA: Steven Ferrante, sef87@cornell.edu. Thursday 3:45-4:35, Rockefeller 105 Meets once a week. Discussion section meetings are the place to make sure you understand the material presented in the text and lecture.

Problem assignments Weekly problem assignments will be available on the course website on Mondays. They will be due in the Physics Department Office mailboxes across from Clark 125 by 5:00PM on the following Monday. Late homeworks will not be accepted. The homework assignments will be graded as follows. The grader will choose two problems at random and thoroughly grade them on a scale of 1 – 6. The remaining part of the homework will be graded on effort only, for an additional 4 points, for a maximum of 10 points for each homework. Solutions will be available soon after they are due.

Homework parties If we are assigned a UTA, they will organize sessions for the class to work on problems together and will be there to answer questions. Stay tuned.

Exam Schedule. The registrar does not schedule exams for 3000 level courses. Thus they will be in class, and you will be informed well ahead of time. There will be two prelims and final exam.

Exams and Grade The final grade will be based upon (1) your work in the recitation section and (2) the grades in prelims and the final exam. . No make-up exams at a later date will be given. The final course grade will be according to the formula:

$$\text{Course grade} = \frac{2}{3} [\text{exam grade}] + \frac{1}{3} [\text{section grade}]$$

where

$$\text{exam grade} = \frac{1}{4} \left[\sum (\text{prelim grades}) + 2 \times (\text{final exam grade}) \right]$$

The section grade is primarily based on homeworks, but may include a small participation component.

Administrative Matters Late enrollments are handled by Ms. Danyel Wierson, 121 Clark.

Prof. LeClair's office hours are scheduled for Tuesday's at 1:30 or by appointment in 465PSB. For help on the homework you should visit the TA's office hours. Prof. LeClair's office hours are for the purpose of discussing study skills, ways of improving performance, and broad, general questions on the material, etc.