

PHYS 521 Quantum Mechanics I

--- Fall 2023

Instructor Information:

- Instructor:** Prof. Ruixing Zhang, Physics & MSE
- Office:** 203 South College
- Email:** ruixing@utk.edu or, via the Canvas message system
- Class Location:** Nielsen 304
- Class Time:** Tuesday and Thursday, 12:55 pm – 2:10 PM
- Office Hours:** Thursday 2:15 – 3:15 PM, @ 203 South College
- Communication:** The majority of classroom communication will be conducted via the Canvas for this class. To ensure prompt response from me, follow the email policy:

- Please put “**Course #**” (i.e. PHYS 521) in the subject line of all course related emails. This practice will help me identify course related emails and respond promptly.
- You can expect up to a 24-hour delay in responding to emails; I will try to minimize such delays, but do not email me on the evening an assignment is due or before an exam expecting an immediate response.
- Before emailing me with questions about the course, please ensure that the information is not already provided in the course syllabus or on Canvas.

Course Description & Goals:

Textbook: Modern Quantum Mechanics by J.J. Sakurai & Jim Napolitano (2nd or 3rd edition)

Course Overview: This is a 3 credit-hour course on graduate-level quantum mechanics. We will cover the first three chapters of Sakurai’s book, including Fundamental Concepts, Quantum Dynamics, and Theory of Angular Momentum.

Pre/corequisites: Knowledge of undergraduate-level quantum mechanics is **required**.

Note: A minimum grade of C is **required** in this course to progress to PHYS 522.

Grading & Evaluation:

Homework Assignments (30%): Homework will be assigned regularly. The assignments will be turned in during class on the indicated due date. **No late assignments will be accepted.**

Midterm Exam (30%): The midterm exam is expected to happen around mid-October. More information on the exam will be announced later.

Final Exam (40%): The final exam is scheduled to take place at **3:30 pm on Dec. 13 in Nielsen 304.**

Make-up Policy: If a known conflict exists, you should contact me at least **two weeks** in advance to make alternate arrangements.

Letter grade will be obtained using the conversion below:

%	Grade
>90%	A
87% - 89%	A-
83% - 86%	B+
80% - 82%	B
77% - 79%	B-
73% - 76%	C+
70% - 72%	C
67% - 69%	C-
63% - 66%	D+
60% - 62%	D
57% - 59%	D-
<56%	F

Other Information:

Class Rules: Students need to follow the following guidelines and class room etiquette in order to ensure a positive and respectful learning environment for everyone:

- **Be respectful:** Act in a matured/polite manner and be respectful of the learning process (See the rules posted on Canvas).

- **Raise your hand:** If you have a question or comment during the class, please raise your hand.
- **Share the air:** If you have been dominating the discussion or participating disproportionately, let others participate. Alternatively, if you haven't said much, you are encouraged to participate more.
- Please use **respectful and (socially) inclusive language**.

Group work policy: I encourage students to work together and discuss the homework with each other. Such discussions are one of the most effective ways of assimilating the material. The work you turn in must be written up by you and **NOT** be a copy of your peers' work or some other source such as solutions found on the Internet. **Any homework assignment that is a direct copy of another person's work without attribution will count as plagiarism and will be dealt with accordingly. Do not take advantage of the work of other people, and do not let anybody benefit from yours.**

Students with Disabilities:

If you need course adaptations or accommodations because of a documented disability, please contact the Student Disability Services (SDS). This will ensure that you are properly registered for the services provided by SDS. University Policy forbids me from making special accommodations without a letter from the Office of Student Disability Services.

Disability Services Contact Information:

2227 Dunford Hall

Knoxville, TN 37996-4020

Phone: (865) 974-6087

Fax: (865) 974-9552

Email: sds@utk.edu

Website: <https://sds.utk.edu/>

Disclaimer

The instructor reserves the right, when necessary, to alter the grading policy, change examination dates, and modify the syllabus and course content. Modifications will be announced in class. Students are responsible for announced changes.