

PHYS 701: Quantum Mechanics II

TuTh 10:00 – 11:15 AM, PAHB 123

Instructor: Jason Kestner
Office: Physics 217
Office Hours: Th 11:15AM–12:15PM, or anytime my door is ajar
Email: jkestner@umbc.edu
Textbook: Principles of Quantum Mechanics, Shankar, 2nd ed.

Course Description

This course is a continuation of PHYS 601, and covers topics such as addition of angular momenta, perturbation theory, scattering theory, and field quantization. As is standard for a graduate level course, you are expected to read the textbook and learn on your own. My role is to assist you in the process, and I intend to use the class time to take questions, reinforce key concepts, and work through examples together.

Assignments

Homework will be assigned regularly. You are permitted to consult internet solutions responsibly, but recognize the detrimental effect it can have on your exam abilities. Also, copied or paraphrased work is always unacceptable. It is fine to use somebody else's idea in your solution, but you must include a citation. The work you turn in must be self-contained, logical, and neat. You may use Mathematica or other software unless instructed otherwise. If you do so, you must attach a printout to your homework.

Exams

There will be two midterm exams and one final exam. The final exam will be cumulative.

Overall Grades

Your course grade will be determined by the following components:

| | |
|----------------|-----|
| Homework | 20% |
| Midterm Exam 1 | 25% |
| Midterm Exam 2 | 25% |
| Final Exam | 30% |

This course will not be graded on a curve. Total scores translate to grades in the following way:

| Score | Grade |
|--------|-------|
| 90–100 | A |
| 88–90 | A- |
| 85–88 | B+ |
| 81–85 | B |
| 78–81 | B- |
| 75–78 | C+ |
| 71–75 | C |
| 68–71 | C- |
| 65–68 | D |
| 0–65 | F |

Academic Integrity

By enrolling in this course, each student assumes the responsibilities of an active participant in UMBC's scholarly community in which everyone's academic work and behavior are held to the highest standards of honesty. Cheating, fabrication, plagiarism, and helping others to commit these acts are all forms of academic dishonesty, and they are wrong. Academic misconduct could result in disciplinary action that may include, but is not limited to, suspension or dismissal. To read the full Student Academic Conduct Policy, consult the UMBC Student Handbook, the Faculty Handbook, or the UMBC Policies section of the UMBC Directory.

Title IX, Equity, and Inclusion

Federal law mandates notice of the policies available at <https://ecr.umbc.edu/sample-title-ix-responsible-employee-syllabus-language/>.