

PHYSICS 706 – Quantum Mechanics – Spring 2012

Lecturer: Maarten Golterman

Office: Thornton 305

Phone: 405-0903

E-mail: maarten@stars.sfsu.edu

Web site: <http://www.physics.sfsu.edu/~maarten>

Class hours: 14:10 – 15:25 pm; room: Thornton 428

Office hours: Tu, Th, 9:30-10:30 am

Feel free to make use of my office hours as much as needed, and feel free to drop by some other time if you can't make it to office hours (leave a message at my e-mail address if you don't find me). Especially with doing the homework, it helps to come ask questions if you get stuck!

Textbook: J. Sakurai and J. Napolitano, Modern Quantum Mechanics, 2nd edition (Addison–Wesley)

Prerequisites: Physics 701, 785 or permission of instructor.

Homework: There will be weekly required homework assignments, which together will count for 20% of the grade for the course. They will be posted on my web site. You are encouraged to discuss the assignments with other students, and ask me as many questions as needed, but the writeup of the problems must be your own individual work. I will make solutions available, so you should hand in your homework on the due date. If for any reason you cannot complete a homework set in time, you should contact me *before* the due date!

Exams and Grades: There will be one midterm exam (beginning of April) and a final exam. Both exams will be take-home exams. Each exam will count for 40% of the final grade.

Other recommended reading:

J. Greensite, Lecture Notes on Quantum Mechanics

D. Griffiths, Introduction to Quantum Mechanics (Prentice Hall)

E. Abers, Quantum Mechanics (Prentice Hall)

E. Merzbacher, Quantum Mechanics (Wiley–Toppan)

Course contents: Some of the topics we will cover are angular momentum and symmetries, systems of identical particles, approximation methods such as perturbation theory and variational methods.

Deadlines:

Drop: Feb. 3

Add: Feb. 17

Withdrawal: April 20

Students with disabilities who need reasonable accommodations are encouraged to contact the instructor. The Disability Programs and Resource Center (DPRC) is available to

facilitate the reasonable accommodations process. The DPRC is located in the Student Service Building and can be reached by telephone (voice/TTY 415-338-2472) or by email (dprc@sfsu.edu).