3650:625  Quantum Mechanics I  Fall 2000

Class:    Tu 3:30 – 5:30 p.m. Th 3:30 – 4:45, Ayer 112

Instructor:   Jutta Luettmer-Strathmann
             *8029, room 211 Ayer, jutta@physics.uakron.edu
Office hours:  M 2:30 – 4:00 Tu 1:30 – 2:30 W 11:30 – 12:30

Course homepage:  http://physics.uakron.edu/dept/faculty/jutta/quantum1/quantum1.htm
Electronic reserve:  http://eres.avs.uakron.edu/cgi-bin/eres/viewbyinstr2.pl?LUETTMER-STRATHMANN
Password:  quantum

Homework:   in general, weekly assignments
Special Project:  research and present a QM topic of interest to you

Exams:  midterm:  take home, Thursday, October 19
         final:  take home, due December 13

Grades:  homework 50 %
         project 20 %
         midterm 15 %
         final 15 %


Further Reading:
  • L. D. Landau, Quantum Mechanics, non-relativistic theory, Addison-Wesley, Reading, Mass., 1958
  • E. Merzbacher, Quantum Mechanics, 2nd edition, Wiley, New York, 1976
  • A. Messiah, Quantum Mechanics, Vols. 1 and 2, North-Holland, Amsterdam, 1961-62
  • J. J. Sakurai, Modern Quantum Mechanics, Revised Edition, San Fu Tuan, Editor Addison-Wesley, Reading, Mass., 1994

Topics include:
  • fundamental concepts and formalism
  • time evolution and the Schrödinger equation
  • simple systems with exact solutions
  • symmetries
  • angular momentum and spin