Physics 615
Quantum Mechanics II

Instructor: B. Holstein, phys615@physics.umass.edu

Office: LGRT 1132

Office Hours: Open

Text: *Quantum Mechanics*, 3rd edition, by E. Merzbacher

Format: This will be basically a lecture course, in which we will discuss basic ideas of quantum mechanics—including path integral methods, scattering theory, angular momentum algebra, approximate methods, field quantization, radiation theory, relativistic quantum mechanics, etc. In addition to the required text, I have asked that

i) *Modern Quantum Mechanics* by J.J. Sakurai
ii) *Modern Approach to Quantum Mechanics* by J.S. Townsend
iii) *Quantum Mechanics* by E. Merzbacher
iv) *Introduction to Quantum Mechanics* by D.J. Griffiths
v) *Quantum Mechanics* by C. Cohen-Tannoudji, B. Diu, and F. Laloe

by placed on reserve. I shall also place my lecture notes together with problem solutions on reserve. Lecture notes can also be accessed and read on line at http://www-unix.oit.umass.edu/ phys615

Requirements: There will be weekly homework sets. NO LATE HOMEWORK WILL BE ACCEPTED! There will also be a midterm examination and a final.

Grading: Homework Sets 60%
Midterm Exam 20%
Final Exam 20%