Physics 481
Quantum Mechanics II

Instructor: Jason Kumar
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Class meets:
MWF 10:30-11:20am
WAT 114

Recommended Textbook:
Introduction to Quantum Mechanics
David J. Griffiths

Topics to be covered:

        Angular momentum

        Identical particles

        Perturbation Theory

        Scattering

        The WKB Approximation

Grading:

        The course grade will be based on homework and exams

        ~60% -- homework
        ~20% -- midterms
        ~20% -- final

Student Learning Outcomes:
At the successful completion of this course, students will be expected to:

        1) Understand the quantization of angular momentum for single and multi-particle states

2) Treat systems of multiple particles, including those where the particles are distinguishable, identical bosons, and identical fermions

3) Be able to compute perturbations to wavefunctions and energies in a small-parameter expansion, as well compute approximate solutions to Schroedinger's equations

4) Compute basic scattering amplitudes