

Department of Physics
Rhodes College
Physics 212-Introduction to Quantum Physics

Course Outline-Spring 2000

This course continues your study of the domain of quantum physics and includes material on particle spin, multielectron atoms, quantum measurement theory (which is not covered in the text), nuclei and nuclear decay, elementary particles, radiation and applications in molecular and solid state physics. We continue to employ the text *Modern Physics for Scientists and Engineers* by Taylor and Zafiratos.

Assignments

Problem assignments will be issued periodically. Problems will be assigned for individual and for group effort. In the latter case, it is the responsibility of the group members to see that work is apportioned evenly.

Term Paper

A paper is required; it may cover any topic related to those covered in this semester. The topic must be approved by the instructor. The papers are to be written and formatted in the style of the *American Journal of Physics*, thus including an abstract, text, figures and references. Examine an issue of AJP to see the style. The text length should be 8-10 printed pages. Papers will be due on or before start of class Tuesday, April 25.

Grades

Grades will be computed on the following basis: assigned problem sets, 30%; Tests, 30%; term paper, 20%; exam, 20%. All work counting toward the final grade must be pledged.

Schedule

A tentative schedule of classes follows.