Course Syllabus
Physics 206  Modern Physics

General Information
Instructor: Dr. R. Knispel  Office: Halsey Science 348  Phone: 920-424-4431

Office Hours: Monday, Tuesday: 11:30 to 12:30
Wednesday: 10:20 to 11:20
Thursday, Friday: 9:10 to 10:10

Course Meeting Times:
Lecture  1:50 to 2:50 p.m.  M W F  HS 456

Text:  Modern Physics 4th Ed. by Paul A. Tippler and Ralph A. Llewellyn,
       W. H. Freeman, 2003

Course Outline:
Unit 1  Relativity—Chapters 1 & 2
Unit 2  Quantization of Charge, Light, and Energy—Chapter 3
       The Nuclear Atom—Chapter 4
       Wavelike Properties of Particles—Chapter 5
Unit 3  Schrödinger Equation—Chapter 6
       Atomic Physics—Chapter 7
Unit 4  Topics from Statistical Physics—Chapter 8
       Topics from Nuclear Physics, Nuclear Force—Chapter 11
       Topics from Particle Physics—Chapter 13
Student Project Unit  Nuclear Reactor Discussions —Chapter 11 and related material

Testing:  There will be a test on each of the four units, most likely in-class, although one may be
         take-home.  There will be reports by students on the Reactor project unit.  Depending on time,
         other topics may be added as indicated by student interest.

The course grade will consist of the following:
The four tests will count 70% of the class grade, distributed as follows:
    17.5% for each test
Nuclear Physics Project  10%
Homework  20%

The concepts covered in this course are new and different from the concepts and physical laws
covered in General Physics:  Mechanics, Thermodynamics, Sound and Waves, Electricity and
Magnetism, and Optics.  These new physical laws with new conceptual bases are necessary at
small distances and high speeds, but these laws reduce to familiar physical laws as we apply
them to the larger distances and slower speeds with which we are familiar in everyday life.
Grading Scale:

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<th>In-class tests</th>
<th>Take-home Tests</th>
<th>Homework</th>
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