Phy- 333- 001 – Modern Physics – T,R (8:00 – 9:15)am  MS 323

Instructor: Robert Friedfeld  
Office: 322I or 126 Miller Science Building  
e- mail: rfriedfeld@sfasu.edu  
Office Hours: MTWRF (10-11)AM, (2-3)PM  
Phone: 468-2197  
Term: Fall 2008  
Text: Modern Physics, 3rd edition  
Authors: Serway/Moses/Moyer

**Course Description:** An introduction to relativity, quantum phenomena, atomic and nuclear physics.  
**Prerequisites:** PHY 132 (or 242) and MTH 233.  
**Co-Requisites:** PHY 333L

**Course Objectives:** To introduce the student to the language and formalism of twentieth century physics. To cover the major core topics of special relativity and quantum theory applied to atomic structure.

**Tentative Schedule (subject to change at discretion of the instructor)**

<table>
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<tr>
<th>Chapters</th>
<th>Topic</th>
<th>Exam Date</th>
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| 1-2      | 1) Relativity I  
           2) Relativity II | Sept 16 |
| 3-5      | 3) The Quantum Theory of Light  
           4) The Particle Nature of Matter  
           5) Matter Waves | Oct 16 |
| 6-10     | 6) Quantum Mechanics in One Dimension  
           7) Tunneling Phenomena  
           8) Quantum Mechanics in Three Dimensions | Nov 18 |
|          | 9) Atomic Structure  
           10) Statistical Physics |   |
| Final Exam | (Comprehensive with emphasis on Ch 9-10) | Thur. Dec. 11 |
|          |         | (8:00-10:00) AM |

See Final Exam Schedule at the following link:  
[http://www.sfasu.edu/registrar/Registration/finalexamschedule.html](http://www.sfasu.edu/registrar/Registration/finalexamschedule.html)
Grading & Testing Policy:
Grades will be determined according to the following:

- Exam #1 = 10%
- Exam #2 = 10%
- Exam #3 = 10%
- Comprehensive Final Exam with Emphasis on Latest Material = 30%
- Home Work = 20%
- Lab Avg. = 20%

No make-up exams will be given unless there is a valid reason is provided to the instructor.

Grading Scale:  
A (90-100)  B (80 – 89.9)  C(70-79.9)  D(60-69.9)  F(0-59.9)

Important Dates:
- Aug.  25  Classes begin
- Oct.  22  Last day to drop classes.
- Nov. 26 (WED)  Thanksgiving Holiday (8:00 AM)
- Dec 11 (THU)  Final Exam (8:00 – 10:00)AM

Dead Week:  
The term “Dead Week” pertains to the last week of classes before final exam week. The instructor of this course reserves the right to give tests and assignments during “Dead” week.

Special Accommodation Statement:
Students with documented disabilities who need course accommodations should make an appointment to see me as soon as possible.