Physics 221: Optics and Thermal Physics
Spring 2005

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Note: DO NOT send email regarding this course to me at any other email address. You must use this email address for communication regarding this course.

Office Hours, subject to change: 8:30 – 10:00, Monday and Tuesday.

Web Site: The class web site will be:
http://leona.physics.tamu.edu/Phys221.05s/

Text: Physics, for Scientists and Engineers 3rd Edition, by Douglas C. Giancoli
Note: We will use both Volumes I and II.

Prerequisites: (must have already passed) PHYS 208 or 219, PHYS 218, MATH 152 or 172.

Co-requisites: (should be taking now) MATH 221 and 308.

Grading: In-Class Quizzes (≈daily) 100 points.
Exam 1 100
Exam 2 100
Final Exam 200
Total 500 points.

Exams will take place in the class room during scheduled class time. The final exam will take place in the class room at the time designated by the university. Exams will emphasize the material of a given section, but will by necessity also include concepts from previous sections.

Quizzes will be given during most class periods. These quizzes will be short and cover topics that were just discussed in class, or related to assigned homework problems. Some of these may be team quizzes conducted with teams assigned by the instructor.

You may need a basic scientific calculator for the exams and quizzes. In addition to arithmetic functions, this should include trigonometric functions and exponentiations.

You must bring your student ID with you to all exams for identification purposes.

Grades: Individual exam grades and the average quiz grade may be curved depending on the level of difficulty. In no case will a curve result in a lower letter grade than the standard 90-100% A, 80-89% B, 70-79% C, 60-69% D and <60% F.

Homework Problems will be assigned weekly, but will not be collected or graded. However, you need to work all of the homework problems to do well on the exams and daily quizzes. Homework problems, and other important information will be posted on the web site listed above.
Approximate Schedule: The course will be broken into three parts, as shown:

**Part 1. Oscillation, Waves, and Sound:**
- Chapters 14, 15, 16
- **Exam 1**

**Part 2. Electromagnetic Waves and Optics:**
- Chapter 32
- Chapters 33-34 (brief review, covered in PHYS 208)
- Chapters 35, 36
- **Exam 2**

**Part 3. Thermal Physics:**
- Chapters 17-20
- **Final Exam**

**Absences:** If you miss any exam, with a *valid* excuse, you will be allowed to make up that exam, otherwise the grade will be entered as 0. If you miss a daily quiz with a *valid* excuse, that quiz will be dropped from your average. Policies dictating valid excuses and notification thereof are given in the *Student Rules*, located on the World Wide Web at http://student-rules.tamu.edu/rule7.htm.

**ADA Policy:** The Americans with Disabilities Act (ADA) is a federal anti-discrimination statute that provides comprehensive civil rights protection for persons with disabilities. Among other things, this legislation requires that all students with disabilities be guaranteed a learning environment that provides for reasonable accommodation of their disabilities. If you believe you have a disability requiring an accommodation, please contact the Department of Student Life, Services for Students with Disabilities, in Room 126 of the Koldus Building or call 845-1637.


As commonly defined, plagiarism consists of passing off as one’s own the ideas, words, writings, etc., which belong to another. In accordance with this definition, you are committing plagiarism if you copy the work of another person and turn it in as your own, even if you should have the permission of that person. Plagiarism is one of the worst academic sins, for the plagiarist destroys the trust among colleagues without which research cannot be safely communicated.

If you have any questions regarding plagiarism, please consult the latest issue of the *Texas A&M University Student Rules*, under the section “Scholastic Dishonesty.”

**Copyrights:** The handouts used in this course are copyrighted. By “handouts,” I mean all materials generated for this class, which include but are not limited to syllabi, quizzes, exams, lab problems, in-class materials, review sheets, and additional problem sets. Because these materials are copyrighted, you do not have the right to copy the handouts, unless I expressly grant permission.