

SCIE 3301/5308

Section 002

IPC/Physics

Fall 2009

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Instructors: Dr. Andrew P. White (High Energy Physics Group),
Cheryl Brooks (Boswell High School).

Office: Room 241, Science Hall, (817) 272-2812, *or* Room 348
CPB

Class schedule: Section 001, Tuesday, 6.00pm – 8.50pm, Room
226 Science Hall

Textbook: “Physics” by Giancoli, 6th edition, Prentice Hall.

Course Syllabus

This course will cover :

- one dimensional motion

- two dimensional motion (using vector analysis) including projectile motion, and uniform circular motion
- Newton's three laws of motion
- Circular motion
- Work and energy
- Potential Energy and the Conservation of Energy
- Linear Momentum and the description of simple collisions
- Simple Harmonic Motion
- Newton's Law of Gravity
- Introduction to Heat, Temperature, and Basic Thermodynamics
- Simple wave motion and properties of waves
- Electric fields and forces; circuits
- Magnetism and electromagnetic induction
- Electromagnetic waves and light
- Introduction to Modern Physics (if time permits)

Class Style

Each class will consist of a lecture part, followed by practical exercises.

Traditional classroom setting with use of some teaching aids.

You are strongly encouraged to **ask questions** about the material of the course or its

applications.

The *only* way to master the material of this course is to solve a variety of associated problems. Each class will have a set of related homework problems from the UT Austin Homework Web site. These problems will be automatically graded, and it is *your responsibility* to attempt these problem sets for each class. I will allow opportunities in class for you to ask questions/receive hints concerning each problem set.

Evaluation procedure

There will be **three term tests plus a comprehensive final exam**. The procedure I use to arrive at final grades is as follows:

1. Look at the class performance on each test and the final and adjust the means as necessary to take out any variations in the degree of difficulty of each test.
2. Take the best two term tests after step 1. These two tests will represent 35% of the final grade.
3. The final exam represents 25%
4. The Participation and Lab Note Book score represents 20%
5. The Homework score represents 20%

PLEASE NOTE!! **SCIE/5308** Students will be evaluated as follows:

There will be **three term tests plus a comprehensive final exam**. The procedure I use to arrive at final grades is as follows:

1. Look at the class performance on each test and the final and adjust the means as necessary to take out any variations in the degree of difficulty of each test.
2. Take the best two term tests after step 1. These two tests will represent 30% of the final grade.
3. The final exam represents 20%
4. The Participation and Lab Note Book score represents 15%
5. The Homework score represents 15%
6. The Special Project will represent 20%

Homework assignments

The course ID for the Homework Service is 85077

To read the **Students' Instructions** for the Homework Service:
<http://hw.utexas.edu/studentInstructions.html>

To obtain a UT EID (which you MUST have!) please see:

<https://hw.utexas.edu/bur/studentGuestEID.html>

To login as a student:
<http://hw.utexas.edu/>

Contacting the Instructor

Office hours will be Tuesday 5.00pm - 6.00pm in 241 SH, unless otherwise notified - or informally as you can find me.

You may Email me at awhite@uta.edu

TESTS AND FINAL !!!!!!!!!!!

Examples of term tests and final are available at the Science Learning Center.

Other important information...below

Grade Replacement. If you are retaking this class in order to replace a previous grade, you must complete the necessary form by census day (Jan 31).

The forms required are located at the Bursar's Office in Davis Hall. If you do not complete the forms by census day, the University will not honor the replacement.

Drop for non-payment of tuition. If you are dropped from this class for non-payment of tuition, you may secure an Enrollment Loan through the Bursar's Office. You may not continue to attend class until your Enrollment Loan has been applied to outstanding tuition fees.

Library Information. Mary Jo Handke is the Physics Librarian. She can be reached at (817) 272-3000 ext 4979, and by Email at handke@library.uta.edu.

Other Physics information is found on the Web site www.uta.edu/library/research/rt-phys.html

Students with Disabilities. The University of Texas at Arlington is on record as being committed to both the spirit and letter of federal equal opportunity legislation; reference Public Law 93112-The Rehabilitation Act of 1973 as amended. With the passage of new federal legislation entitled Americans with Disabilities Act (ADA), pursuant to section 504 of The Rehabilitation Act, there is renewed focus on providing this population with the same opportunities enjoyed by all citizens.

As a faculty member, I am required by law to provide "reasonable accommodation" to students with disabilities, so as not to discriminate on the basis of that disability. Student responsibility rests with informing faculty at the beginning of the semester and in providing authorized documentation through designated administrative channels.

Academic Dishonesty. It is the philosophy of The University of Texas at Arlington that academic dishonesty is a completely unacceptable mode of conduct and will not be tolerated in any form. All persons involved in academic dishonesty will be disciplined in accordance with University regulations and procedures. Discipline may include suspension or expulsion from the University.

"Scholastic dishonesty includes but is not limited to cheating, plagiarism, collusion, the submission for credit of any work or materials that are attributable in whole or in part to another person, taking an examination for another person, any act designed to give unfair advantage to a student or the attempt to commit such acts." (Regents Rules and Regulations, Part One, Chapter VI, Section 3, Subsection 3.2, Subdivision 3.22)