

PHY 2048 - Physics for Engineers and Scientists I

Spring 2006

Instructor: Dr. Jeffrey Bindell

Schedule 2048 MWF, 10:30-11:20 AM Room 359

Phone 407-823-4194

E-mail: bindell@physics.ucf.edu

Website: www.physics.ucf.edu/~bindell

OFFICE HOURS:

I am usually on campus on Mondays, Wednesdays, and Fridays. Since I am a “morning person”, I usually arrive on campus at about 7:00 AM. Feel free to “drop in” almost any time before 9:30 and between 11:30 & 12:20 most of these days. FORMAL office hours will be 7:30 – 9:30 AM every MWF that there are classes. 11:30-12:20 is hit or miss without an appointment. The best way to contact me for either an appointment or any other reason is either through the email above or via the WebAssign mail system. ITEMS discussed below are subject to change as circumstances dictate.

TEXTBOOK

Serway and Jewitt

Physics for Engineers and Scientists, Volume 1, 6th Edition

Thompson – Brooks/Cole

Also Required: [WebAssign Login](#) (From Bookstore or on-line)

Description:

PHY 2048 is the first part of a sequence of introductory physics courses aimed at students who intend to major in engineering or a scientific discipline. It requires mastery of differential and integral calculus including such topics as line, surface and volume integration. It essentially covers topics in classical mechanics: the accurate description of the motion of objects in space and in time.

The material covered in this course can be very interesting and its understanding allows the student to progress into all of the engineering and science programs at UCF. Without the background provided by PHY2048, students will find engineering, as well as physics and chemistry programs, extremely difficult to master. Consequently it is suggested that the student pay careful attention to this material because it has such a strong influence on future studies.

Material to be covered:

This course will be covered over a ~14 week period containing 40 teaching classes and 3 mid-semester examinations. It will generally cover the textbook at a rate of about one chapter per week. Because of the intensity of presentation, it is very important that students remain current in their work; “catch-up” is extremely difficult.

Grades:

The final grade will be a balance of the following with the indicated weights. Completion of homework assignments is extremely important with respect to understanding the course material.

Item	Weight
Mid Semester Examinations	45%
Final Examination	30%
Homework	15%
In Class Quizzes	10%

It is important to notice that homework counts for 15% of your grade. Homeworks will be based on WebAssign. Although "extensions" will be available, valid reasons should be offered at the time or he request.

Assignments will be made on a weekly basis. The first will be due on Monday and will require that some advance reading be done. These questions will be multiple choice. This will assure that you are properly prepared for the lecture and/or demonstration for the upcoming week. The second will be a series of more difficult problems and will generally be due on Fridays.

Grading: Grading will be according to the following table. A "curve" will NOT be used.

SCORE	GRADE
85-100	A
75-84	B
60-74	C
50-59	D
Less than 50	F

Homework:

Homework is to be submitted on time or it may not be accepted. Although teamwork on homework is encouraged, individual submissions are required. Web-Assign will be used most of the time. When actual document submissions are required, only randomly selected problems will be graded so that it is important to answer ALL questions. Lately it has become possible to "buy" WebAssign solutions. This practice is unethical and if anyone is found to be using these services, he/she will be recommended for expulsion. This policy also extends to quizzes and examinations. In any such case, an F will be "awarded".

Quizzes and Examinations:

Quizzes are meant to assist the student in learning so students will usually be informed if the next class will include one. There will be no “pop quizzes”. All quizzes and examinations can include material covered in the past and not just the current topic. Physics builds on previous material in a structured and logical way.

Remember that there will be a brief QUIZ *almost every week*. The quiz will either be a series of short answer (multiple choice) questions or a problem. WebAssign problems often find their way into quizzes or exams so pay attention to the homework assignments when studying. As a hint, I like to include problems that require either the interpretation or the sketching of graphical material.

Make-up quizzes and examinations will **not** be allowed unless there is a very compelling personal reason for doing so. Such reasons include death in the family, illness or other medical issue, family emergency or approved sporting activities (team). Formal documentation will be required.

Examination Schedule

The exam schedule is for guidance only. Dates may change for various reasons.

EXAM NUMBER	DATE
1	January 27
2	February 20
4	March 31
FINAL EXAM	May 1

Class Lecture Schedule:

The following schedule is only *approximate*. Notice that all exams scheduled can change for various reasons at your instructor’s whim! The material covered on exams will always be announced in advance and can cover material covered the day *before* an exam. What follows is what is believed to be approximately correct except for those items that are not correct.