

Physics 113 Overview and Course Schedule: Fall 2007

Professor: Jacquelyn S. Fetrow (fetrowjs@wfu.edu; www.wfu.edu/~fetrowjs; Yahoo IM jsfetrow; AIM IM jacquef40)

Office: Olin 301B and West 236 (*NOTE: I have two offices! When you make an appointment with me, I will tell you in which office to meet me—save yourself time and pay attention to this information.*)

Office Hours: For this class, I will hold the following office hours this semester:

- Wednesday 2-3 pm, Manchester 236
- Friday, 10-11 am, Olin 301B

In addition, my office door is usually open (unless I'm in a meeting). This semester, I will generally be in physics on Mon and Friday, and Manchester on Tues and Thurs. On Wed, I will be in Olin in the morning and Manchester in the afternoon. To save yourself time, I recommend that you IM, email, or phone to find out where I am before stopping by. However, feel free to drop by either office when the door is open.

Problem Session: I will hold a regular problem session on Wed afternoon, 5-6 pm in Olin 101. During this problem session, I will not be lecturing or covering new material. I will be available to answer any questions you may have about homework, reading quizzes, lecture, in-class activities, or other information related to the course. To get the most out of the problem sessions, try your best to work the problems BEFORE the problem session.

Class Time: Monday, Wednesday, Friday, 9-9:50 am

Textbook: Physics for Scientists and Engineers, Volume 1, Serway and Jewett; 6th edition

Videos: In addition to textbook reading, many classes will have a video assignment. These videos will provide a different format for you to internalize the information in physics. Some videos will illustrate problem solving methods, others will illustrate equation derivations or physics concepts. These videos will be available throughout the semester. These videos are available at <http://www.wfu.edu/physics/rsr-edu.html> and can be viewed on your computer. You must be on the WFU campus (within the WFU firewall) or logged in through WFU's VPN in order to view these videos. (If you have suggestions for videos that would be useful, please let me know!)

Before-class reading quizzes (daily): The goal behind the reading quizzes is to make sure you did the reading, watched the videos, and thought about the material before the lecture. You will get much more from the in-class activities and lectures if you do this. On-line quizzes (see WebAssign) will have several (not very hard) questions, worth a total of 4 points. The questions will come from the textbook reading and from the videos. These will be due by 7 am the day of class.

In-class prediction and work sheets: These work sheets will be distributed for most classes and must be turned in, but will *not* be graded (predictions are *not* right or wrong, they are simply your predictions)—you automatically get 2 points each time you turn in a prediction/work sheet.

Homework: Homework will be due regularly, so that you keep up with the material. Homework will be due every Friday at 9 pm. Homework questions are available at WebAssign and submission is on-line through WebAssign. Do NOT wait until Friday to

start working on the homework, as I may not be available to answer questions. Work on the homework throughout the week. Take advantage of problem sessions with me and with tutors to help with homework—but come to those sessions with specific questions. *You must keep up with the material daily to do well in this class.*

Web Assign: For on-line quizzes and homework, we will be using WebAssign: <https://www.webassign.net/login.html>; purchase access number through bookstore or on-line.

Physics Labs: Attendance and participation in the physics 113 laboratory is mandatory. Your laboratory grade will count as 15% of your overall grade. However, it is Physics Department policy that if you fail the laboratory, you will fail the course.

Examinations: There will be 4 in-class examinations during the semester. Three of these exams will be worth 100 points. The exam on which you receive the lowest score will only count 50% (50 points maximum).

Final examination: The final examination is scheduled for Tuesday, Dec 11, at 9 am. Please note this day and time on your calendar now. Half of the examination will cover the last three topics that were not covered in the previous exams; half of the examination will be cumulative.

Grading:

Daily pre-class quizzes:35 quizzes each worth 4 points	140 pts
In-class “prediction” and worksheets: ~30, each worth 2 points	~60 pts
Homework: (15 weeks, 20 points per week)	300 pts
In-class examinations: 4 exams, 3 worth 100 points, 1 worth 50 points	350 pts
Laboratory:	~190 pts
Final examination:	~200 pts

Total possible points: approximately 1240 pts

Note: you can determine your letter grade at any time during the semester by dividing the number of points you have earned to that point by the total number of points, then multiplying by 100 to get a percentage. On a straight scale, 90-100 is an A, 80-89 is a B, 70-79 is a C, 60-69 is a D, and below 60 is an F.

In the event of closure of the university for a significant part of the semester: In the event that the university closes due to pandemic or other disaster, please read and study the assigned reading in the text book (see course schedule). Reading quizzes (distributed over Blackboard, if the internet is available; or by postal mail if the internet is not available) must be completed to test your comprehension of the reading. Do the home work problems listed on WebAssign and send the solutions to: Jacque Fetrow (fetrowjs(at)wfu(dot)edu, if the internet is available; or 1014 Oaklawn Avenue, Winston-Salem, NC 27104). If the internet is not available, you will be mailed the problems that must be completed. You will also be mailed or e-mailed a final examination that should be taken closed book, without access to papers, persons, or resources other than a calculator. The return dates for the examinations will be specified in the mailing. In the event of university closure, more detailed homework, reading quizzes, and a longer final exam will be used for grading, in place of the in-class activities. If the internet is available, Professor Fetrow will be available for normal office hours by instant messenger: jsfetrow on Yahoo IM and jacquef40 on AIM.

Strategies for doing well in this course:

- Physics is not like many other courses you've taken
- The "memorize all the facts" strategy will probably not work
 - Avoid searching through the book for the "right equation"
 - Work to understand the concepts behind the problem
- Problem solving is key—you must expend effort on the reading quizzes and homework problems
 - Looking at the answer and thinking "oh, I understand that," without working through the problem on your own, will *not* work
 - Get help from study groups or other material, but after you study, make sure you can sit down with no source material and work the problems from scratch—this will indicate your own understanding of the material
- Keep up with the work and participate in class
 - Read the chapter and take reading quizzes seriously—figure out what you don't know/understand before you come to class
 - Ask questions in class; participate in the discussions
 - Homework is due weekly—don't wait until the last night before its due to work on it; instead, work on it throughout the week
- Take advantage of the extra material available to you
 - If you don't understand something in the reading, take a look at the videos and see if that helps you understand it
 - Review the assigned videos before lecture and before tests
 - Work in study groups to help solve problems (but see note above about working the problems yourself)
 - Take advantage of problem sessions by coming prepared to ask questions

Responsibilities and expectations:

- As a student
 - Read the textbook and watch videos ahead of lecture time (don't need to memorize everything)
 - Come to lecture—participate in demonstrations, problems, discussions; ask questions
 - Work the homework problems—attempt to understand them, and not approach with the "which equation do I use" attitude
 - Don't cram for exams—stay on top of the material
- As the professor
 - Goal is to help you learn, understand and appreciate physics (not just plug-and-chug equations)
 - Will not "try to make this as hard as possible"
 - Will be available to help you when you have difficulty