Inquiry Into Physics
Physics 115 sec 0101
Syllabus
University of Maryland
Spring Semester 2007

Where, When: Physics 3316, MTuW 2:00 PM to 3:50PM
Instructor: Paul Hutchison Office: Physics 1406 Phone: (301) 405-5983
Email: hooch@umd.edu
Office Hours: By appointment. I am always happy to meet with you!
Co-instructor: Ayush Gupta Email: ayush@glue.umd.edu
TA: Steph Sasser Email: ssasser@umd.edu

There are no prerequisites for the course, though enrollment in it is limited to Elementary Education and Early Childhood majors. You will receive four credit hours for completion of the course and may receive credit for only one of PHYS 115 or PHYS 117.

About this course:

It is likely your experience in this class will be a little different from your previous science classes. The main elements of the course are observations you make and discussions you have with your lab partners and other classmates. Your understanding of the concepts we encounter will be grounded in the lab exercises we do and the discussions you engage in, and will involve you making sense of those things and your own intuitions about the way things work. Ideas are correct only if you can support them with evidence and reasoning, not because the teacher says so.

Because of the critical importance of your participation to both your own learning and to the learning of your lab group and the class as a whole, I expect you to attend regularly. To encourage your regular presence attendance will be taken each day. More than a few unexcused absences will affect your course grade. You must provide documentation for any excused absence.

Grading:

I will base your course grades on essays, participation, your lab notebooks, your daily sheets, and exams. As much as possible, I'd like to keep your attention on the substance of what we're doing rather than on grades. In the end, that leads to the highest quality of work. For this reason, I don't like to put grades on individual assignments, either as letters or as points. My experience is it distracts students from what this is all supposed to be about, learning science, not accumulating points. So you'll find lots of written comments on your assignments, but no summative letters or points.

I know this isn't what you're used to, and I'm happy to speak with you about it, including to talk about your grade if you're concerned. Ayush and I will score exams in the conventional way, and at midterm I'll hand out my estimate of your grade so far.

Exam Schedule:

The course is divided into three units, each of which will focus on a single topic. Each unit will end with an exam on the material from that section. The three exams will be given on Feb. 27th, April 10th, and May 15th. The first two exams will be during normal class hours and the third is scheduled for the time of our exam during finals week and will be from 1:30 PM to 3:30 PM in our normal classroom.

Homework Assignments:

There will be roughly one homework assignment per week. Homework assignments are usually essay type questions. In some cases, especially early in the semester, you may be required to revise and resubmit assignments. In most cases you will have a weekend over which to work on assignments, though occasionally I will need to have assignments turned in on rather short notice.

Lab Notebook:

There is no textbook for this course. Instead you will maintain a lab notebook that will serve some of the purposes of a textbook. It must be a three ring binder. In the notebook you should have lots of blank paper so you can record your observations, the observations of your peers, your ideas, the ideas of your peers, and the evidence for and against each idea. You should also include a copy of each homework assignment and your graded exams in your lab notebook. Your notebook will be collected and commented upon twice during the semester.

It is important that you keep a careful and thorough notebook because you have no textbook. You will be allowed to refer to these materials during exams. Furthermore, you may find the notebook useful when you begin to teach science to your own students.

Daily Summary Sheet:

At the end of each class period I will give you a few minutes to fill out a daily summary sheet. These sheets will be turned in at the end of each class and returned at the following class meeting. They will be checked to verify you are completing them thoroughly. All of the returned sheets should be kept in your lab notebook.

Academic Integrity:

The integrity of your degree is important to me. Therefore I strongly support the Code of Academic Integrity of the University of Maryland. What does this mean in a collaborative environment like the one we have in this class? I expect you to consider yourselves a part of a learning community, so it is quite appropriate you seek help as you do your various assignments. In fact you will probably be most successful if you work with other students both in and out of class. This does not, however, mean identical reports are in order. You are expected to respond in your own unique style, even when the conclusions were reached through group efforts.