Physics 136 Condensed Syllabus, Spring 2010

Note: this Condensed Syllabus is just a summary information sheet; enrolled students are responsible for reading the full course syllabus, which is posted online in the Course Information section of the Blackboard (aka Online@UT) course site. Our approach is very different from the traditional lecture-based course (with laboratory), so it is very important that you read the full syllabus thoroughly.

Class Meeting Times

Section 1  Monday and Wednesday:  1:25 - 3:20; Friday:  1:25 - 2:15
Section 2  Monday and Wednesday:  3:35 - 5:30; Friday:  3:35 - 4:25

Class Meeting Location: Nielsen Physics Building, Room 203, changing to Room 207 after about 1 week, to be announced.

People
Dr. Stuart Elston, Instructor
Office Hours:  MWF 10:00 - 11:30, or by appointment.
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Matthew Bailey, Graduate Teaching Assistant
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Brief Course Description
This is a four credit-hour, calculus-based physics course covering basic electricity and magnetism with extension to the role of electrons in matter and the production of electromagnetic radiation. The emphasis in this course is that a very wide range of behaviors can be described starting with a small number of fundamental principles; using these powerful principles, models can be constructed to explain a wide variety of physical phenomena.

Pre-requisite: Math 141 or equivalent; Co-(or pre-)requisite: Math 142 or equivalent.

Textbook
Volume 2 of this text costs $87.15 (used price) in the UC Bookstore. I haven't seen new copies; the publisher's retail price is $115. The course will cover chapters 13 through 23 of this text.

Grades
Final course grades will be determined by a weighted average, as shown in the table below. Grades will never be curved downward – if everyone in the class does well, everyone can get an A. It may happen that a particular exam is unexpectedly difficult and no one does well; in that case, the grades for that exam may be curved upward, or the grades may be left as is, and consideration of a curve left for final grade time. The letter grade breakpoints shown in the table on the next page are fairly conventional, and are applied to the final course score determined from the weighting scheme table. Grades will be maintained using the WebAssign online gradebook.
Hour Exams: Three hour exams are scheduled throughout the semester. Dates for the hour exams are February 19, March 26, and May 5. Exam dates are also listed in the course calendar.

Quizzes: Periodic (possibly unannounced) quizzes will be designed to take you 10 minutes or less, if you are prepared. There will be no make-up opportunities; however, the lowest quiz score will be dropped.

Homework: Individual homework will be submitted via the WebAssign online homework system. You will be introduced to WebAssign during the first class. It will be necessary for you to purchase access to WebAssign (about $20), but there will be a free grace period during the first 2 weeks (approximately) of class. WebAssign details are online. A homework journal/notebook will be required to provide a hardcopy record of problem solutions, and will be periodically collected for grading.

Lab: Labs will be done in groups and will vary in length and complexity. Some labs may require formal lab reports that should follow basic scientific report guidelines, others will merely use worksheets or WebAssign entry. Some lab exercises will involve the construction and application of a computer simulation, as a means of exploring and visualizing the consequences of a particular theoretical prediction. Much more detail online.

Classroom participation: this component of the course grade depends on in-class activities, clicker questions, group cohesiveness, attitude, etc. Attendance is required but only enforced via the classroom participation score.

Course Schedule/Calendar; Text study and Assignments
The course schedule/calendar is posted in the Course Information section of the Blackboard course site. Read it carefully to see what textbook sections to study and what topics are being discussed during the upcoming week. It is expected that you read the assigned text sections thoughtfully, before they are covered in class. You are responsible for reading the textbook and working assigned problems. You may be assigned homework problems on material that has not been covered in class. There may also be short reading quizzes (which may not be announced in advance) at various times in the semester. You should start the homework early and get help if needed before the problems are due. Check the course schedule/calendar regularly for due dates. In the event of conflicts, the WebAssign due dates posted online take precedence.

Late homework: You may request an extension for a past due homework assignment, but there will be a point penalty (typically 5%). Under no circumstances will a due-date extension be approved if the WebAssign log shows that you have seen the key for the assignment. Homework solutions will not be posted.

Facility Rules: Interactive learning requires resources, including computers used for some of the activities. Because it is easy to get off track while doing activities, it is necessary to restrict access on the computers. The following rules apply whether using a classroom computer or your own in Room 203/207. Students who need to use a computer for any of the restricted functions will be asked to use some other facility.

1. No instant messaging.
2. No email, except to send yourself class-related files.
3. No accessing non-class related URLs.
4. No cell phone use, except to take photos of whiteboards or of apparatus for lab reports.
5. No food or drinks (this includes water and gum) are allowed in Room 203/207 at any time.

Disability Services: Reasonable efforts will be made to accommodate students with certified disabilities. For more information, see http://ods.utk.edu, phone the Office of Disability Services at 974-6087, or visit their office at 2227 Dunford Hall.

Other important resources are listed in the full course syllabus, posted online.