Physics 303K – Engineering Physics I
Spring 2015 – TTh 11:00 am, PAI 2.48
Unique numbers 56175, 56180, 56185, 56190

Instructor: Dr. Jack Turner  Office: RLM 8.308
Office hours: Tentative - MWF 11am - 1pm or by appointment
Virtual Office Hours: By far the best way to reach me is by email. Be sure to use the special email address dr-t1@physics.utexas.edu that has been set up for this course.

TA: Josh Hebert (jrhebert@physics.utexas.edu) will be the TA for 303K. He will conduct the discussion sessions and hold office hours.

LAs: Undergraduate Learning Assistants will assist with the weekly discussion sessions. They will also hold office hours, in person sometimes, but more often on line.

Course Materials

Organization:

Quest: The course uses Quest, a web-based instructional system that generates and collects assignments and maintains student records. Once you are officially registered for this course, you will automatically be added to the class roster in Quest. When you go to the Quest website, https://quest.cns.utexas.edu, click on the "Log in to Quest" link and Quest will list this course, by the first unique number (in red in the list above), which you can select to get access to assignments, grades, messages, etc. Note the following from the College of Natural Sciences about use of the Quest system:
“This course makes use of the web-based Quest content delivery and homework server system maintained by the College of Natural Sciences. This homework service will require a $25 charge per student per class for its use, with no student being charged more than $50 a semester. This goes toward the maintenance and operation of the resource. Please go to the Quest website, above, to log in to the Quest system for this class. After the 12th day of class, when you log into Quest you will be asked to pay via credit card on a secure payment site. Quest provides mandatory instructional material for this course, just as is your textbook, etc. For payment questions, email quest.billing@cns.utexas.edu.”

Clicker: This class will use an i>Clicker “inclassquiz” for in-class participation. You will need to purchase an iClicker remote (available at the Co-op). Then go to “My Profile” in Quest and enter the serial number found on the back of your iClicker (include leading zeros). When you return to the Quest menu and select this course, you will find your “Clicker Box #” in the information box. Be sure to make note of your box number which you will need when using the clicker in class. If you have used an i>Clicker in a previous or concurrent course at UT, Quest may already “know” your i>Clicker serial number, which will appear preset in your “My Profile”
NOTE: Entries in RED or BLUE are new or especially important.

in Quest. If the serial number on your clicker is not legible, bring the clicker to class or to my office so the serial number can be recovered.

Class Web Site:  http://web2.ph.utexas.edu/~turner  For every lecture a daily “instructor’s page” will include specific reading assignments, relevant class notes, examples and problems, and other timely information. You should check the instructor’s page every day.

Course Requirements

Prerequisites and Corequisites will be checked by the Physics Department by the first day of class. Students who do not satisfy the official requirements for the course will be dropped unless they receive permission from the physics undergraduate adviser. See the Physics Undergraduate Coordinator in RLM 5.216. You should receive an email by the first class day if you do not satisfy all prerequisites and corequisites for this course.

From the Course Schedule: PHY 303K ENGINEERING PHYSICS I
A general survey of physics; primarily laws of motion, heat, and wave phenomena. Only one of the following may be counted without prior approval of the department: Physics 301, 302K, 303K, 309K, 317K.

Prerequisite: Prerequisite: High school physics or consent of the undergraduate adviser; Mathematics 408C with a grade of at least C-; Mathematics 408K with a grade of at least C- and registration for 408L, or Mathematics 408N with a grade of at least C- and registration for 408S; and credit with a grade of at least C- or registration for Physics 103M.

PHY 103M: The physics lab is a separate course which is a corequisite of PHY 303K. The labs usually begin the second full week of classes, i.e., Monday, January 26. I will confirm the start date for labs and announce it in class.

Discussion Sessions: When you registered for this course, you enrolled in a Discussion (or TA) Session identified by one of the four unique numbers listed above. The Discussion Sessions will begin next week at the earliest. I will confirm the start date for discussion sessions and announce it in class.

Assignments and Exams

Homework: Regular homework assignments will be turned in to Quest via the Web. Unless otherwise announced, homework will be due by 11:30 pm on the assigned date. Answers can be turned in any time after a homework assignment is available for download from Quest, typically at least two days before the final cutoff. Any exceptions to this schedule will be announced. Late homework does not exist.

Midterm Exams: The four midterm exams will take place from 7 - 9 pm on the following Monday evenings: February 16, March 9, April 13, and May 4. The exams will take place in UTC 2.112A. You must take each midterm exam at the specified time and place. It is best to resolve any potential conflicts at the start of the semester and not wait until the last minute.

Final Examination: 2 - 5 pm on Friday, May 15. Location TBA.
NOTE: Entries in RED or BLUE are new or especially important.

Grading Policy

Exam grades: The grades of all exams (the 4 midterms and the final), will be be expressed in a “scaled score” which contains the curve for the exam computed from the class average (percent score), your individual percent score, and the standard deviation. The class average is assigned a scaled score of 500, which corresponds to a C letter grade. The letter grade ranges are A, above 600; B, 540-600; C, 460-540; D, 400-460; F, below 400.

Components of Your Course Grade: To see how different types of assignments will be weighted in determining your final grade, look at “Grade summary” in Quest.

Attendance at lecture is expected, and will count toward your grade in the course. Lecture attendance will be checked using inclassquiz clicker activities via Quest, and will contribute to your grade. We are required to report significant absences from class to your academic Dean, and typically will do so about the middle of the semester.

Midterm Exams: Students are required to take all four midterms. No make-up exams will be given. If a student misses a midterm due to a legitimate, documented, reason approved in advance by the instructor, the student’s scaled score on the final exam may replace the score of the missing midterm. At the end of the semester, the best three out off the four midterm grades will contribute 45% to the final grade.

Final Exam: The final exam is comprehensive and mandatory. If you earn an A (scaled score 600) on the final, you will receive an A in the course; if you earn a B (scaled score 540) on the final, you will receive at least a B, no matter what your other grades are.

Extra credit will be made available throughout the course. It will be used mainly to determine the final letter grade of students who are just below a letter-grade cutoff at the end of the semester.

Other Resources and Suggestions

Disability Accommodations: From the Dean of Students: “The University of Texas at Austin provides upon request appropriate academic accommodations for qualified students with disabilities. For more information, contact the Division of Diversity and Community Engagement, Services for Students with Disabilities, 512-471-6259, http://www.utexas.edu/diversity/ddce/ssp/”

Coaching Service: In addition to instructor, TA, and LA office hours, physics graduate students are available on class days for free tutoring on the 5th floor of RLM (between the elevators and the Physics Department offices). The coaching schedule will be posted on the bulletin board in that area.

Cheat Sheets: You may bring to each midterm a “cheat sheet” consisting of one sheet (two for the final exam) of 8 ½ x 11 paper with anything you want hand-written on it (both sides). The idea is that by the time you have organized the covered material well enough to make a “quality” cheat sheet, you will have it well organized in your brain as well. For the final exam you may bring two cheat sheets.

Study Suggestions: You are responsible for all assigned sections of the book even if they are not covered in class, and for any material that is included in posted lecture notes. Read the material before class, and a second time afterward. Start working on your homework as soon as it is available and begin turning it in as soon as you have worked some of the problems. Get help
immediately if you have trouble with the material. The importance of doing the homework assignments (and understanding them) cannot be overemphasized. *Very few students pass who do not do well on their homework.*

**Some Ground Rules for Class:** In this class, common courtesy should be all we need to keep things running smoothly. A few specific guidelines:

- Since the doors to the lecture hall are in the front of the room, it is distracting when students arrive late or leave early. If you do arrive late (don’t make it a habit), take a seat near the door, in the aisle, if necessary. If you know you will have to leave early, let me know before class, and sit near the door.

- Be on time. As a wise man once said: "If you're early, you're on time. If you're on time, you're late. If you're late, you're dead."

- Please read your newspaper and talk to your friends outside of class.

- *Turn off all personal electronics before class.* This includes computers, cell phones, etc. The only exception is for a student who is actively taking notes on a digital device.