

Physics 123, Section 1

Spring Term 2009, MWF 8:00-9:50, C215 ESC

Instructor: Justin Peatross, 422-5043, peat@byu.edu

Office: N269 ESC, Consultation: MWF 10AM; Lab U160 ESC

Class WebSite: <http://www.physics.byu.edu/faculty/peatross/Physics123.aspx>

Textbook: *Physics for Scientists and Engineers with Modern Physics*, Vol. III, Serway, Jewett, 5th, 6th, or 7th ed.

Grade: 30% Homework, 9% Labs, 5% Quizzes, 36% Exams, 20% Final Exam

(Guarantees: A \geq 92.5%, A- \geq 89%, B+ \geq 86%, B \geq 82%, B- \geq 77%, C+ \geq 72%, C \geq 67%)

Course ID Number: You will be assigned a course ID number, sent to your Route-Y email address by the first day of class. This number is to be used instead of your name when submitting assignments. If you have not yet received your identification number, you can obtain it from the course homepage. Click on the link to identification numbers.

Quizzes: Multiple-choice quiz questions will be given throughout each lecture. You will answer the questions electronically using an electronic transmitter. Go to the course homepage on the Internet and register your transmitter ID number. This information is necessary to give you credit for quizzes. You will not be allowed to make up quizzes for any reason (tardy, absent, forgot transmitter, etc.). However, they are weighted only a small amount in your grade, and your lowest four quiz scores during the semester (composite of all questions in a given 50-min period) will automatically be changed to the maximum scores.

Labs: Each lab will be available in S415 ESC on the days indicated on the schedule. You may work in groups, but you must be present in the laboratory when collecting the data for your report. Submit your lab reports to the 123 homework slots near the tutorial lab, sorted by the first digit of your class ID number. Your lowest lab score will be dropped automatically.

Exams: There will be four exams during the semester. They are administered without time limits in the testing center. For each exam, you will be allowed to use one sheet of notes (8.5" by 11" - both sides) and a calculator. No photocopies please (e.g., pages from the text or other people's notes). The final exam will be a comprehensive multiple-choice test available in the testing center June W17-Th18. For the final, four pages of notes and a calculator are permitted.

Receiving Assignments Back: Homework items, exams, and lab reports will be returned to the bins near the classroom before the next class period after they are submitted. Sorting is according to the first two digits of your ID number. You are encouraged to consult solutions that will be posted in the hall near N361. You may also discuss the solutions with T.A.'s or myself.

Appeals Process: If there is an error in grading a homework item, a lab, or an exam, or an error in recording your score, please attached a note to the item and place it in the box marked "123 APPEALS" near the tutorial lab. The instructor will review all appeals on a weekly basis (approximately). For computer-graded homework or quizzes, any error in grading or recording probably will have affected the whole class. Please report such problems to the instructor by email; we can retroactively re-grade electronic assignments.

Tutorial Lab: You may get help on problems in the tutorial lab located in N304 ESC. You are also encouraged to work in groups whenever possible. Please feel free to visit with me during office hours (or by appointment).

Homework: Homework is due at the beginning of nearly every class period as indicated on the attached schedule. Usually, homework problems will be submitted over the Internet, but some items will be turned in on paper in the bins near the tutorial lab. The homework problems for this course are included in the packet. Each student will receive different data for homework, resulting in answers that differ from those of other students. Blanks are left in the problems where you can write in your unique data. Your data for the entire semester are contained on a sheet, available at the course website. Click on "Online Homework" and then "Homework Data Sheet." If you do not have a course ID number yet, you must obtain one before your homework data sheet can be generated.

Electronic Homework Submissions: After working the problems, submit your answers over the Internet before the deadline. Go to the course homepage and click on "Online Homework" and then click on the assignment number. Fill in the answers as indicated. Do not put units on your answer. Use the units indicated next to the blank field. Very large or small numbers should be written in scientific notation in the following format: Write $3.00e8$ for 3.00×10^8 ; write $1.60e-19$ for 1.60×10^{-19} . Do not put any spaces in the number.

Significant Figures: You will typically need 3 significant figures to obtain an accuracy accepted by the computer (unless otherwise explicitly stated in the problem). Be sure not to round your calculations at intermediate steps before obtaining an answer. This includes, for example, when using a value from part (a) to compute part (b).

Scoring: After you enter your answers, be sure to click "OK" next to "Click here to submit answers." **The entire assignment is graded together.** You cannot split an assignment so that, for example, some problems are considered to be on time and some late. However, on resubmissions, you do not need to redo problems that were previously accepted as correct. Each problem submitted electronically is given 4 points if all parts to the problem are entered correctly. If any part of a problem is wrong, you will receive no credit for that problem unless you pursue the resubmission process. Any multiple-choice question within a problem is treated separately and gives one additional point. Multiple-choice questions cannot be resubmitted.

Resubmissions (of Electronic Homework): After the computer grades the homework, you may see your score over the internet by going to the course home page and clicking on “Online Homework” and then on “Homework Status.” You will see your score and the correct answers for any problems that you missed. In that case, new data will be assigned. Use this data to resubmit an assignment. You need only fill in those fields that were previously marked incorrect (even if it is only part of a problem). Upon resubmission, correct problems receive 3 points. Again, if any problems are missed, the correct answers are displayed and new data assigned. Second and third resubmissions are possible, for 2 and 1 points, respectively.

Late Electronic Homework: If you submit an assignment late, you will receive “late points,” defined to be the difference between your score computed ignoring deadlines and your score with deadlines enforced. To be considered on time, all resubmissions must be completed before the next homework deadline. A first submission occurring after the assignment due date but before the resubmission deadline receives 3 points plus 1 “late point.” The late points for three assignments (those that benefit you most) will be counted at full credit. All other late points will receive half credit. You may talk to the instructor if you have *special* circumstances that cause you to submit *more than* three assignments late.

Homework Turned in by Hand: Some homework problems require a diagram or a derivation, as indicated in the problem. Submit it in the homework slots outside near the tutorial 1a by the deadline. Use the slot corresponding to the first digit of your ID number. The number of points awarded for these items will vary. The points for these items will be appended to your electronic homework score (after they are graded). There is no resubmission process for items submitted on paper. However, *one* homework item of your choosing can be accepted late and graded at the end of the semester. It is to be placed in the separate bin for Late Homework before the last day of class.

Preventing Sexual Harassment: BYU's policy against sexual harassment extends not only to employees of the university but to students as well. If you encounter sexual harassment, gender-based discrimination, or other inappropriate behavior, please talk to your professor or department chair, or contact the BYU Equal Employment Opportunity Office at 422-5895, or contact the Honor Code Office at 422-2847.

Students With Disabilities: BYU is committed to providing reasonable accommodation to qualified persons with disabilities. If you have any disability that may adversely affect your success in this course, please contact the University Accessibility Center at 422-2767. Services deemed appropriate will be coordinated with the student and instructor by that office.

Date	Homework	Labs	
Wed, Apr. 29 Fri, May 1	Introduction #1, #2	#1 Begin	
Mon, May 4 Wed, May 6 Fri, May 8	#3, #4 #5, #6 #7, #8 Review, Intro	#1 Due; #2, #3 Begin #2, #3 Due	Exam I, Begin Fri, May 8
Mon, May 11 Wed, May 13 Fri, May 15	#9 #10, #11 #12, #13	#4 Begin #4 Due	Exam I, End Tues, May 12
Mon, May 18 Wed, May 20 Fri, May 22	#14, #15 #16, #17; Review, Intro to Optics #18, #19		Exam II, Begin Wed, May 20 Exam II, End Fri, May 22
Mon, May 25	No Class		
Wed, May 27 Fri, May 29	#5, #6 Begin #20, #21 #22, #23	#5, #6 Due	
Mon, June 1 Wed, June 3 Fri, June 5	#24, #25 Review, Intro #26, #27	#7, #8 Begin #7, #8 Due	Exam III, Begin Mon, June 1 Exam III End Wed, Jun 3
Mon, June 8 Wed, June 10 Fri, June 12	#28, #29 #30, #31 #32, #33, Review	#9, #10 Begin #9, #10 Due	Exam IV, Fri, June 12
Mon, June 15	Lecture, Review		Exam IV, End Mon, June 15
Wed-Th, June 17-18			Final Exam, Testing Center