PHYSICS 240 Spring 2015

Dr. Ross Cohen

Section 8364: Lectures 9:30 A.M. Monday & Wednesday, Lab 8:00 A.M. Thursday

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Office: 34-161 (inside 34-162)

Office Hours: Office hours will be in the instructor's office or the computer room (34-108).
Monday: 1:15 – 2:45 P.M
Tuesday: 9:30 – 11:00 A.M. and 3:30 – 4:15 P.M
Wednesday: 10:45 A.M. – 12:00 P.M.

Mailbox: Mail may be left with the switchboard; please ask them to stamp the time and date.

Web site: http://www.grossmont.edu/rosscohen: announcements and assignments
bb.gcccd.edu: grades will be posted on Blackboard
http://edugen.wileyplus.com/edugen/class/cls436759/: WileyPlus homework system and online book.

Required:
- *Fundamentals of Physics*, 10th ed., parts 2 and 3. Halliday, Resnick, and Walker. You will need access to the online homework system in WileyPlus. **I strongly recommend you get the printed text as well.**
- *Physics 240 Lab Manual, Grossmont College*, Ross Cohen
- Laboratory Notebook with duplicate numbered graph pages.
- Protractor and metric ruler

If you took Physics 140 at Grossmont College in Fall 2014, you should have almost everything you need. If you took Physics 140 earlier than that, see your instructor or the instructions in the course website.

Optional: Barrett, *Study Guide, Fundamentals of Physics Condensed*.

Calculators: A **non-programmable scientific** calculator is required for exams. We generally cannot lend you one. They cost $10 - $15. You should buy one.

Supplements: Other physics textbooks are available on limited loan at the library. Consult these introductory texts for supplementary explanations, examples, and problems.

Phones, pagers: Turn off all audible ringing devices. **No cell phones out during tests.**

Dictionaries: No electronic translators will be permitted during quizzes and exams. You must clear the use of a printed foreign language dictionary with the instructor.

Attendance: Regular on-time attendance and class participation are expected. If you arrive late or plan to leave early, please sit in the back. In accordance with Grossmont College policy, a student may be dropped after missing the equivalent of one week of class.

Academic Integrity: Cheating and plagiarism (using as one's own the ideas, writings or materials of someone else without acknowledgement or permission) can result in any one of a variety of sanctions. Such penalties may range from an adjusted grade on the particular exam, paper, project, or assignment to a failing grade in the course.

Academic dishonesty includes, but is not limited to, submitting another person's work as your own, copying from another student on assignments or exams with or without that person's permission, allowing another student to copy one's work, or using any unauthorized materials in an exam. For any quiz, test, or assignment on which academic dishonesty occurs, the student will receive a zero. You may work together to understand any concepts, but work you hand in should be your own. You must be the original author of all work submitted for credit. **If you *look* at your cell phone, pager, or other electronic device during an exam, you exam paper will be collected at that time!!!**

Sound recording or photography within the class is not allowed! The instructor may also summarily suspend the student for the class meeting when any disruption occurs, as well as the following class meeting. For further clarification and information on these issues, please consult with your instructor or contact the office of the Assistant Dean of Student Affairs.

Grading: Cumulative grades will usually be posted after each exam. Points will be as follows: A ≥ 90%, B ≥ 75%, C ≥ 65%, D ≥ 55%. Cutoffs may be lowered at the end of the semester but will not be raised. **We will also be using +/− grades.** Cutoffs for these will be determined at the end of the semester. If you do not take the final, you will most likely receive a grade of F for the course.

4 Exams (including the final) covering material from lecture and labs The final exam is equivalent to the other exams.	Conceptual, short answer, and problems. A sheet of formulae will be provided with the exams. The final will concentrate on the most recent material, unless otherwise specified.	65%
Homework	Written problems generally will be worth twice as much as online problems. They must be worked out neatly and completely.	15%
Lab write-ups and quizzes	Lowest item will be dropped.	20%
Total		100%

Make up exams: If circumstances beyond your control prevent you from taking an exam on the regular day, you may make it up at the Assessment Office: (1) Call or email me (or leave a voice mail) message stating the circumstances beyond your control *by the time of your regular class meeting*; then (2) after 4 pm that day, call the Assessment Office at 619-644-7200 for an appointment; then (3) bring a picture ID when you take your exam. **Their hours are limited. Makeup exams must be completed by Wednesday of the week following the exam, or sooner, if specified. There will be no makeup final exams without proof of illness. There will be no makeup quizzes.**

Homework: Learning physics means *doing* physics – discussing concepts, working in the laboratory, and working (many) physics problems! Homework may be assigned to be done in writing, online, or both. You may discuss things with each other; you may ask for help with understanding the material. Before completing your assignment, work through the problems on your own; **you must be the original author of all work submitted for credit.**

Written assignments are due at the beginning of class on the specified date. Late online homework will be given half credit. **Late written homework will not be accepted for any reason, good or bad.** Solutions to written homework will be posted.

Guidelines: for problems For tests and written homework, set up and solve your equations using algebraic symbols and plug in values at the end. Where appropriate, draw a sketch and label it clearly. Include units with all numerical values, including intermediate steps. Provide clear explanations for multiple choice and short answer problems.

Laboratory & Quizzes: **Come prepared** with the lab writeup, your laboratory notebook, pen, pencil, protractor and ruler, and calculator.

At the beginning of each lab period, write-ups are due from the week before (unless otherwise specified), and, when announced, there will be a quiz. Quizzes will cover homework and/or laboratory assignments. **There will be no makeup quizzes.** For late write-ups, 1 pt will be deducted for labs turned in before the day on-time labs are returned. Labs turned in on or after the "return day" will lose 1 point per day (calculated from the original due date) up to a maximum deduction of 50% credit for those portions of the lab that are completed.

Your lab notebook is the *original* record of *all* your observations. **No copying over of data!!! Get the instructor's initials in your lab notebook before you leave class!** You should turn in the original, not the carbon copy. Read the Guidelines for Laboratory Notebooks and Reports.

Note: at the discretion of the instructor, students may be required to visit the English Writing Center prior to turning in lab reports.

Lab makeups: Make up a missed lab within two weeks. There is a limit of 2 makeup labs per semester. You may not make up labs involving fire or any hazardous items.

- Schedule makeup labs with the Physics/Astronomy tech, 619-644-7314
- No makeup quizzes.

Disability: Students with disabilities who may need accommodations in this class are encouraged to notify the instructor and contact Disabled Student Services & Programs (DSP&S) **early in the semester** so that reasonable accommodations may be implemented as soon as possible. Students may contact DSP&S in person in room 110 or by phone at (619) 644-7112 (voice) or (619) 644-7119 (TTY for deaf)

Student Learning Outcomes

Each student will be able to do the following upon completion of this course:

1) Students will be able to apply the first and second laws of thermodynamics to systems involving solids and ideal gasses.
2) Students will be able to calculate electric fields and potentials.
3) Students will be able to recognize when magnetic fields are present and calculate their properties.
4) Students will be able to apply the laws of motion and conservation principles to charged particles.
5) Students will be able to analyze electrical circuits containing a variety of components.
6) Students will employ laboratory equipment and techniques to acquire experimental measurements, interpret the data, and communicate the results in a coherent manner.

Supervised Tutoring Referral

Students are referred to enroll in the following supervised tutoring courses if the service indicated will assist them in achieving or reinforcing the learning objectives of this course:

IDS 198, Supervised Tutoring to receive tutoring in general computer applications in the Tech Mall;

English 198W, Supervised Tutoring for assistance in the English Writing Center (Room 70-119); and/or

IDS 198T, Supervised Tutoring to receive one-on-one tutoring in academic subjects in the Tutoring Center (Room 70-229, 644-7387).

To add any of these courses, students may obtain Add Codes at the Information/Registration Desk in the Tech Mall.

All Supervised Tutoring courses are non-credit/non-fee. However, when a student registers for a supervised tutoring course, and has no other classes, the student will be charged the usual health fee.