COLLEGE PHYSICS II
PHYS 1320, LAB A, SYLLABUS FALL 2006

CONTACT INFORMATION

Instructor: Dr. Andrew Young
You may call me Dr. Drew.

Telephone#: 1-307-268-2243

Office Hours: Monday, Tuesday, Wednesday, and Friday: 10AM to 11AM, Monday: 2 PM to 3 PM.

Email Address: ayoung@caspercollege.edu
(email is usually the best way to contact me)

Office: PS 206
Feel free to stop by my office anytime if you need help. You are welcomed to schedule an appointment.

Website: http://wind.caspercollege.edu/~ayoung
WebCT will be set up for this class
IM: bosecondense (if you wish, you can give me your IM to put on the buddy list)

REQUIRED: Physics for Scientists and Engineers 3rd edition, Paul Fishbane, Stephen Gasiorowicz, and Stephen Thornton

LECTURE/LAB TIMES

Lecture (Section 01) in PS 202, Monday, Tuesday, Wednesday and Friday, 9:00 AM to 9:50 PM.

Lab (Section A) in PS 208, Wednesday, 2:00 PM – 3:50 PM

SYNOPSIS

Welcome to Physics 1320! This is the second course in a year long sequence that studies fundamental aspects of physics. In this class, we will cover thermodynamics and electrostatics in great detail. We shall start with the concepts of Carnot’s Engine and efficiency. Afterwards, we will examine charge and forces. In addition, we shall cover the fundamentals of Gauss’s Law, Ohm’s Law, and other E&M corollaries. Finally, we will apply these fundamentals to circuits and electronics. I hope you will enjoy this class.

This course is normally taken by students who are concentrating in the physical sciences (geology, chemistry, biology, physics, science for el. ed., etc…). Regardless of whether you want to do the science, teach the sciences, or are just interested in a more in-depth physics course, the course work will require a midlevel proficiency in English, mathematics, and science. In this course, the qualitative and quantitative details of many physical phenomena will be explored at a level higher than that of an algebra-based course. In addition to the lab work, you will be completing a rigorous amount of homework assignments. Doing physics means applying a lot of mathematical (calculus and algebra) and physical concepts in a variety of context. Thus, an enormous amount of effort should be spent on understanding these fundamental tools and using them as if they were second nature to you.

Please read the entire syllabus carefully. You are responsible for all of the requirements and procedures described herein. You are also responsible for all announcements (whether verbal or on powerpoint), assignments, videos, demonstrations, and changes in the dates when material is discussed in lecture, etc..., whether or not you are in class. This syllabus is subject to minor revisions and modifications as needed.

GRADES: 1000 points total, comprised of:

| Labs: 21% (210 points, 15 points per lab, 14 labs) | A, 870 to 1000 points |
| Midterm 1: 9% (90 points) | B, 750 to 869 points |
| Midterm 2: 9% (90 points) | C, 625 to 749 points |
| Midterm 3: 9% (90 points) | D, 500 to 624 points |
| Midterm 4: 9% (90 points) | F, 499 points and below |
| Final Exam: 15% (150 points) | Exams consist of lab, lecture, homework, and textbook material. |

GRADING SCALE
WebCT
The first order of business is to stay up-to-date on materials for this course. In order to do this, you will need to access WebCT. Self-registration will be activated, so you can add the course in with no special username or password. Please be sure to contact me if you are having problems access it. Documents on-line may include powerpoint lectures, homework solutions, homework schedules, and other assorted items.

Exams:
Exams consist of lab, lecture, homework, and textbook material. It may be essays, short answers, or a combination there of. Essays may be entirely math based. All midterms and the final exam will be cumulative. Show your work on all exams to receive partial credit. Additional guidelines will be posted one week prior to exam.

Faculty Initiated Withdrawal:
After two consecutive weeks of non-attendance without valid and proper notification, I reserve the right to initiate a Faculty Initiated Withdrawal per the guidelines of the Casper College Catalog.

Retention Alert:
I reserve the right to send out a Retention Alert after three consecutive no shows to lab/lecture.

Lab Policy and Procedure:
Lab must be attended. If you miss lab section due to SERIOUS complications (illness, military duty, etc…), please contact me in advance. A written notice will be required explaining your absence.

Laboratory work is an integral part of the learning process. It is within these sessions that your instructor can introduce new material, or emphasize material mentioned in the lecture or textbook. The lab work conducted will involve a significant amount of quantitative and qualitative analysis. To gauge your understanding of the lab work, the exercises contained in this document will be considered as testable material for the exams.

- Come to class on time. Coming late is unfair to your group members.
- Turn your cell phones off. If you do make or answer a cell phone call, your classmates have the right to listen in on your conversation, point at you, and giggle a lot. The instructor has this right too.
- All lab work must be completed within the designated laboratory time and handed in at the end of lab.
- Attendance is expected for all lab work.
- Lab grades are an integral part of the final course grade.
- You will make mistakes in lab. Therefore, you should be using pencils.
- There is no smoking break during lab.
- Bring a scientific calculator. You will need it.

Lab groups will be formed with 3 to 4 group members. The group tasks will be divided as follows:

Participation Manager: This person ensures that everyone contributes to the group.
Task Minder: This person ensures that everyone keeps on pace in order to complete the lab on time.
Skeptic: This person double checks everything and determines if another possible answer exists.
Recorder: This person ensures that everybody comes to a general consensus about an answer and writes it down in their lab. You are free to write whatever you want in your lab. However, at the end of the lab, only the
recorder will submit their lab sheets. All group members will sign this lab. The submitted work will receive a single grade and it will be applied to all group members.

Participation in the lab is of the utmost importance. Group learning has been proven to be an effective means to master new material. However, copying down measurements and calculations from others or taking measurements from computers will not be condoned and shall be dealt with in accordance to college regulations.

The Philosophy of Science:
Science is an investigation of the natural world. We strive to quantify and qualify the objects and events that we see in the universe through a process of data collection and thorough analysis. We also try to make a prediction of the things we may see based on what we know. Science is more than just generating numbers. The important thing is to understand each seemingly isolated event and integrate them into a bigger picture. It is important to understand what we know through the process of the scientific method. Have fun learning about physics!

Chain of Command:
If you have any problems in the class, you should first contact the instructor in order to solve the problem. If you are not satisfied with the solution offered by the instructor, you should then move on to the department head, division chair, and lastly, the vice president for the academic affairs.

Readings:
There will be assigned reading for the week. You are responsible for buying the correct book for my class. You are also responsible for keeping up with the reading. I will post the assigned reading on-line each Monday on my WebCT site.

E-mail:
20 years ago, there was no such thing as email. Today, thanks to your tuition money, we now have a wonderful computer system. I will use the Casper College mass e-mail list to notify you of upcoming due dates, changes, and other odds and ends. Therefore, you will activate and check your Casper College e-mail account, regardless of whether or not you have another email account somewhere else. I will not email you anywhere else.

Homework:
Since the emphasis of this class is to do physics, the homework is very important. I encourage you to study together. You may help each other to find how to solve a problem, but you must show all of your work and present your own discussion and steps needed to achieve the solution. This means you should not simply copy another student’s work. Weekly assignments will be posted on-line and are due per the schedule. Homework assignments are to be completed with only one problem per page and must be highly legible. No late homework will be accepted. Unreadable answers will not be graded. Show your work on all homeworks (and for that matter, exams as well) to receive partial credit.

Extra Credit:
There is no such thing as extra credit. Period. Don’t even bother asking. You already have plenty to do. If you are not doing the assigned labs, homeworks, and exams, then you are not working on the basics. Doing extra work while ignoring the fundamentals will not impress me.

Review Sessions:
There is no such thing as a review session. That is why I have office hours, an email address, IM, and a phone. People have come to my office hours before and lived to tell about it. I am not an ogre, agent, sith lord, or ring-wraith.

Special Needs:
Any students with special learning needs must contact their instructor during the first two weeks of class. A signed letter from Disability Services documenting your needs is required. Accommodations cannot be made without the letter. Only when the letter is received upon request of the student will the accommodations be implemented. Accommodations are not retroactive to past exams, essays, etc… and can only be instituted beginning on the date of the receipt. In particular, those students taking exams through Disability Services MUST schedule to take their exam on the same date and begin at the same start time as the classroom examination.

**Academic Standards:**
The Casper College Student Code of Conduct will be followed. You are responsible for being familiar with these codes. Students are welcome to work together, exchange ideas, etc. However, EACH STUDENT MUST DO THEIR OWN MEASUREMENTS AND OWN CALCULATIONS. Copying of someone else's measurements, calculations, observations, ideas, and/or writings, of plagiarism of any sort, is equivalent to cheating and will be handled accordingly.

**FINAL NOTE:**
By registering for this class, you of course accept all the policies and stuff described in this syllabus!