

## Syllabus: Physics 1301 College Physics I: Mechanics & Heat

### Text:

Physics, 6th edition, by Cutnell & Johnson (must include registration code for eGrade plus homework website)

### Grading:

Final grades are determined from a combination of homework, exams, and the final exam. There could be class projects also. **There will be no curving.**

Homework/Quizzes/Attendance	25%	90-100	A (A+, A, A-)
2 Exams	50%	80-89.9	B
<u>Final Exam</u>	<u>25%</u>	70-79.9	C
TOTAL	100%	60-69.9	D
		Below 60	F

### Exams and Final Exam:

**Valid picture ID must be on your desk during exams. These will be checked. Also calculators will be necessary** for all exams. **Graphing calculators and programmable calculators will not be allowed in the exams.** A little scientific calculator that has trig functions can be obtained very inexpensively and should be all that is used on the exams.

Exams will consist of a conceptual **matching and multiple choice** section and a problem section composed of **3 to 5 problems**. You must **show all your work especially equations** for the problems. No partial credit will be given on the conceptual section, but there will be for the problems.

All exams will be **closed book**. **Formulas will be provided with the exam.** You must know the concepts and vocabulary for the exams. **Exams will cover both in-class examples and homework. Exams must be done in ink.**

During the exam periodic information will be given on the overhead like time updates and any clarifications necessary. A verbal warning of 10 minutes remaining will be given. When time is up I will request everyone to put their pens down and pass their exams to the right and leave to the left.

Any question about an exam grade must be addressed by the next class day after handing out of the exam to the class. After that all grades are final.

Makeup exams will only be offered once at the end of the semester and only in the case of documented, extenuating circumstances. You can only make up one exam, so don't miss more than one.

The final exam will be **cumulative** and will be based on the exams and homework. The final exam will have all rules of a regular exam still in effect.

**Any student involved in cheating will be reported to the Dean of Students.**

### Homework:

Homework assignments are given for each chapter on the website

<http://edugen.wiley.com/edugen/class/cls4843>

Just go to the website and login as a student following the directions.

This homework **will** be graded. Late homework will be accepted but with a penalty. Do not get behind. No handwritten homework will be accepted.

### Quizzes:

There will be short reading quizzes at the beginning of each class based on the chapter going with the lecture material. They are graded and part of your final grade. Therefore you must **read the chapters before the lecture.**

You can also go to the course under WebCT and download part of the lectures. Be careful these lectures are not complete and will not be enough to pass the class. **Come to Class.**

## **Class Objectives: Chapters 1-17 in text**

This is a list of what I expect you to know and be able to do by the end of this class.

1. Addition, scalar multiplication, and vector multiplication of vectors
2. Understand the components of linear motion (displacement, velocity, acceleration) especially motion under conditions of constant acceleration
3. Understand the different forces and work force problems
4. Understand Newton's laws of motion
5. Understand the different types of energy
6. Use the conservation of energy to work problems
7. Understand impulse, momentum and collisions
8. Understand center of mass and rigid bodies motion
9. Know rotational variables and the relationship between linear and rotational variables
10. Be able to solve problems using rotational and linear variables
11. Understand and work with equilibrium situations including the different types of equilibrium.
12. Understand simple harmonic motion and waves including their properties.
13. Understand fluids in motion and at rest.
14. Understand heat and heat transfer mechanisms
15. Understand the three laws of thermodynamics
16. Know the types of engines and refrigerators