PES 100 – Physics in Everyday Life - Fall 2008

TR 10:50-12:05 Engineering #103

Course Syllabus

Instructor: Robert G. Gist **Office and Hours**: ENGR 244, (W 6-7p, Thu 12:30-1:30pm) **UCCS e-mail**: rgist@uccs.edu **Web Site**: http://www.uccs.edu/~rgist **Credit Hours**: 3 **Prerequisite**: None **Text**: ~~*HowThings Work*, 2nd edition, by Louis A. Bloomfield~~ **Correction:** *Physics of Everyday Phenomena*, 5th edition, by W. Thomas Griffith.	**Course Description:** A non-mathematical overview of physics and how it affects our everyday life. Topics to be included are balancing and equilibrium, tornadoes, weather patterns, circus balancing acts, air conditioners, musical instruments and other interesting applications of physics. Recommended for students with no science or mathematics background.

Evaluation: Your knowledge retention will be evaluated four times during the semester. Three evaluations will be mid-term and the fourth will be during the final exam period. Each evaluation counts as 25% of your grade. I will give you at least a week's notice as to the exact date of the evaluation as well as the material for which you will be responsible To account for emergencies, I'll drop the lowest exam grade.

Evaluation Options: Three options will be offered for each evaluation: (1) an in-class, multiple choice exam; (2) an at-home problem set to be turned in on exam day; or (3) an essay describing and applying principles from class. You may choose to a single option, or you may do more than one option. If more than one option is chosen, the points will be combined, up to a maximum of 100% for that evaluation.

Grades: In summary, your grade will be weighted as shown. The letter grade ranges are posted on my website. Ranges include +'s and –'s.

Questions, comments: It is my hope that you will feel comfortable asking questions in class. Chances are that if you are unsure about some topic, there are others who have a similar question. I would like the class to be as interactive as possible. If you have relevant experience with a subject, please feel free to share comments with the class.

Reasonable accommodation: Students with a disability who require accommodations should provide a letter of accommodation from Student Enrichment Services (MH 105, x3354) within the first two weeks of the semester.

Calculators: Calculators will not be required for this course. Calculators will be allowed during exams, if desired.

Cell phones, PDAs, talking, leaving the classroom: Please show respect to the other members of the class by turning off the sound on cell phones and PDAs. Imperative phone calls should be taken outside the classroom. Also, keep conversation to a minimum during the lecture so that others can hear clearly. Please remain in the classroom unless an emergency arises, since foot traffic in the class can be disruptive to other students.

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Schedule (subject to change)

Date		Topic
26-Aug	Tue	Ch 2: Describing Motion
28-Aug	Thu	Ch 3: Falling Objects and Proj. Motion
2-Sep	Tue	Labor Day Holiday
4-Sep	Thu	Ch 4: Newton's Laws: Explaining Motion
9-Sep	Tue	Ch 4: Newton's Laws: Explaining Motion
11-Sep	Thu	Ch 5: Circ. Motion, the Planets, and Gravity
16-Sep	Tue	Ch 6: Energy and Oscillations
18-Sep	Thu	Review
23-Sep	Tue	Exam #1
25-Sep	Thu	Ch 7: Momentum and Impulse
30-Sep	Tue	Ch 7: Momentum and Impulse
2-Oct	Thu	Ch 8: Rotational Motion of Solid Objects
7-Oct	Tue	Ch 8: Rotational Motion of Solid Objects
9-Oct	Thu	Ch 9: The Behavior of Fluids
14-Oct	Tue	Ch 10: Temperature and Heat
16-Oct	Thu	Review
21-Oct	Tue	Evaluation #2
23-Oct	Thu	Ch 12: Electostatic Phenomena
28-Oct	Tue	Ch 12: Electostatic Phenomena
30-Oct	Thu	Ch 13: Electric Circuits
4-Nov	Tue	Ch 14: Magnets and Electromagnetism
6-Nov	Thu	Ch 14: Magnets and Electromagnetism
11-Nov	Tue	Review
13-Nov	Thu	Evaluation #3
18-Nov	Tue	Ch 15: Making Waves
20-Nov	Thu	Ch 16: Light Waves and Color
25-Nov	Tue	Ch 16: Light Waves and Color
27-Nov	Thu	Thanksgiving Holiday
2-Dec	Tue	Ch 17: Light and Image Formation
4-Dec	Thu	Ch 18: The Structure of an Atom
9-Dec	Tue	Ch 20: Relativity
11-Dec	Thu	Review
16-Dec	Tue	Evaluation #4