PES 1000 – Physics in Everyday Life - Spring 2019

MW 1:40pm-2:55pm ENGR 103

Course Syllabus

Instructor: Robert G. Gist **Office**: OCSE A-418 **Office Hours**: MonWed 12:30-1:30, TueThu 12:30-1:30 **UCCS e-mail**: rgist@uccs.edu **Web Site**: http://www.uccs.edu/~rgist **Credit Hours**: 3 **Prerequisite**: None **Optional Text**: *Physics of Everyday Phenomena*, 8th edition, by W. Thomas Griffith. ISBN: 9780073513904	**Description:** A non-mathematical overview of physics and how it affects our everyday life. Topics to be included are forces and motion, balancing and equilibrium, electricity and magnetism, light and waves, and other interesting applications of physics. Recommended for students with no science or mathematics background.

Attendance: Attendance will not be monitored. It is each student's responsibility to cover any material due to missed lectures. Call 255-3346 for school closure information.

Evaluation: Your knowledge retention will be evaluated four times during the semester. There will be three evaluations (one after each major unit) and a comprehensive final which will consist of questions taken from the three mid-term exams. I'll drop the lowest exam grade, so each evaluation counts as 33% 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. The final is optional and can be used to replace a lower previous exam grade.

Evaluation Options: A traditional, in-class, multiple choice exam (Scantron form required); will be given on exam day. In addition, you can choose (as extra credit) to turn in an at-home problem set and/or an essay describing and applying principles from class.

Grades: Your overall class grade will be the average of your best three of the four evaluations given. 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. Out of respect for your classmates, please keep non-class oriented side discussions to a minimum.

Disabilities: Students with disabilities should provide their letters of certification and accommodation within the first two weeks of class. Special accommodations for tests are required a week prior to the scheduled exam date.

Calculators: Calculators will not be required for this course. Calculators will be allowed during exams, if desired, and will be used for the optional at-home problem set evaluation option.

Cell phones, computers, classroom etiquette: Please show proper etiquette by turning cell phones to silent mode and keeping conversation to a minimum during lecture. Please remain in the classroom unless an emergency arises, since foot traffic in the class can be disruptive to other students. Also, realize that using a computer/tablet during class could distract you and others; it's recommended that you sit toward the back or edge and restrict use to only note-taking.

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Significant Dates

Date	Event	Note
Mar 25 – Mar 31	Spring Break	No class
Apr 5	Last day to drop through MyUCCS without instructor/dean approval	
May 13 (Mon)	Final Exam	12:40 pm to 2:40 pm

Schedule (subject to change)

Date		Topic
23-Jan	Wed	Intro, Ch1: Scientific Method, Scalars/Vectors
28-Jan	Mon	Ch1: Units, Ch 2: Describing Motion
30-Jan	Wed	Ch 3: Weight, Falling Objects & Proj. Motion
4-Feb	Mon	Ch 4: Forces, Newton's Laws
6-Feb	Wed	Ch 4: Newton's Laws: Explaining Motion
11-Feb	Mon	Ch 4: Newton's Laws: Explaining Motion
13-Feb	Wed	Ch 5: Circ. Motion, the Planets, and Gravity
18-Feb	Mon	Ch 5: Circ. Motion, the Planets, and Gravity
20-Feb	Wed	Ch 6: Energy and Oscillations
25-Feb	Mon	Ch 6: Energy and Oscillations
27-Feb	Wed	Evaluation #1
4-Mar	Mon	Ch 7: Momentum and Impulse
6-Mar	Wed	Ch 7: Momentum and Impulse
11-Mar	Mon	Ch 8: Rotational Motion of Solid Objects
13-Mar	Wed	Ch 8: Rotational Motion of Solid Objects
18-Mar	Mon	Ch 9: The Behavior of Fluids
20-Mar	Wed	Ch 10: Temperature and Heat
25-Mar	Mon	Spring Break
27-Mar	Wed	Spring Break
1-Apr	Mon	Ch 10: Temperature and Heat
3-Apr	Wed	Evaluation #2
8-Apr	Mon	Ch 12: Electostatic Phenomena
10-Apr	Wed	Ch 12: Electostatic Phenomena
15-Apr	Mon	Ch 13: Electric Circuits
17-Apr	Wed	Ch 14: Magnets and Electromagnetism
22-Apr	Mon	Ch 14: Magnets and Electromagnetism
24-Apr	Wed	Ch 15: Making Waves
29-Apr	Mon	Ch 16: Light Waves and Color
1-May	Wed	Evaluation #3
6-May	Mon	Ch 17: Light and Image Formation
8-May	Wed	Ch 17: Light and Image Formation
13-May	Mon	Final