OFFICIAL SYLLABUS WILL BE PROVIDED IN THE COURSE

EAST TENNESSEE STATE UNIVERSITY

College of Arts and Sciences

Department of Physics and Astronomy

PHYS 2020: GENERAL PHYSICS II COURSE SYLLABUS for FALL 2019

Instructor: Dr. Gary Henson Office: Rm S-272 Phone: 439-6906 email: hensong@etsu.edu
Office Hours: 11:30-12:30 MWF, 1:30-2:30 MWF, 10:00-12:00 Tues or by Appointment

Text: *College Physics*, 11th Edition, by Serway & Faughn

General Physics II is the second semester of a two semester survey course in algebra-based physics; topics will include electricity and magnetism, waves, light and optics, and nuclear physics. Lectures will include a demonstration/experiment of physical phenomena followed by a brief development of the mathematical relations used to describe the phenomena. Numerical solutions to problems involving the phenomena and examples of applications of concepts and principles will then be presented. Please feel free to consult with me outside of class if you are having unusual difficulty with the course. The problem-solving techniques of this course will be new to many of you and you may need special assistance. Also contact me if you have need for test taking or note taking accommodation or have questions about the grading procedure or your own grade at any time.

NOTE: GENERAL PHYSICS IS A PROBLEM-SOLVING COURSE—I.E., YOUR PERFORMANCE IN THIS COURSE WILL BE MEASURED BY YOUR ABILITY TO SOLVE NUMERICAL PROBLEMS AND EXPLAIN PHYSICAL PHENOMENA, NOT BY YOUR ABILITY TO RECITE A FORMULA OR LAW OF PHYSICS. THE ONLY PROVEN METHOD BY WHICH YOU CAN LEARN TO SOLVE SUCH PROBLEMS IS TO WORK OUT THE ASSIGNED PROBLEMS AT THE END OF EACH CHAPTER, APPLYING THE APPROPRIATE CONCEPTS, LAWS, OR THEORIES. THE MORE PROBLEMS YOU LEARN TO WORK, THE BETTER YOU WILL PERFORM ON THE EXAMS. THE EXAMS WILL CONSIST OF PROBLEMS AND QUESTIONS SIMILAR TO THOSE IN THE TEXTBOOK AND OTHER EXAMPLES I MAY WORK IN CLASS. FUNDAMENTAL CONCEPTS AND PRINCIPLES DISCUSSED IN THE LECTURE WILL BE COVERED BY BOTH THE NUMERICAL PROBLEMS AND MULTIPLE CHOICE QUESTIONS.

Your grade will be based on your performance on four regular exams, a comprehensive final exam, plus computer graded homework. The regular exams will consist of three problems as described above (each problem will be graded on a 5 point scale) and 15 multiple choice questions (each worth one point). Thus, each exam is worth a total of 30 points. The final exam will consist of 6 problems and 20 multiple choice questions for a total of 50 points. In addition, 9 homework sets consisting of ~ 5 problems each will be assigned from the CAPA online system (see below). Each homework problem is worth 1 point for a total of 45 points. Thus, there will be a total of 215 points possible for the course. I will not put a letter grade on your returned exams, but final grades will be assigned according to the percentage scale below (based on the 215 pt. total):

A >= 92.6%	B- = 78-81.9%	D+ = 60-64.9%
A- = 90-92.5%	C+ = 74-77.9%	D = 55-59.9%
B+ = 86-89.9%	C = 70-73.9%	F < 55%
B = 82-85.9%	C- = 65-69.9%	

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Calculators will be allowed for all exams, but formula notecards will not! I will provide a list of any necessary constants but you will be responsible for ALL formulas, equations, relationships, etc. involving geometry, trigonometry, algebra, and physics that may be required to solve a test problem.

SPECIAL NOTES: ALL EXAMS COUNT; NONE ARE "DROPPED". BUT IF YOU TAKE ALL FOUR REGULAR EXAMS, THEN YOUR FINAL EXAM GRADE (%) WILL BE USED TO REPLACE YOUR LOWEST REGULAR EXAM GRADE IF IT WILL HELP YOUR AVERAGE. THERE ARE NO "EXTRA CREDIT" ASSIGNMENTS. IF YOU MAKE 60% OR BETTER ON THE FINAL, AND IF YOU HAVE TAKEN AT LEAST THREE OF THE REGULAR EXAMS, THEN YOU WILL RECEIVE A PASSING GRADE FOR THE COURSE. IF YOU MAKE LESS THAN 50% ON THE FINAL, THEN YOU WILL RECEIVE A FAILING GRADE FOR THE COURSE.

You are expected to attend class regularly and should note the dates for each exam given in the schedule below. *NOTE that there are no make-up exams scheduled*. If you miss an exam, and if you promptly provide me, in writing, a verifiable & acceptable excuse for missing, then that exam will be considered your "low" score and replaced as described in the "special notes" above. Extraordinary situations (school sponsored activities, serious health problems, etc.) will be handled on an individual basis but you must communicate with me promptly. ***Please remember that it is your responsibility to initiate the procedure if you miss graded material.***

CLASS SCHEDULE FOR PHYS 2020 FALL 2019

** See my website for suggested end of chapter questions & problems, a list of major concepts for each chapter, and sample exam questions with answers (although I am not posting full solutions).

Chapter

TOPIC 15 Electric Forces and Fields
TOPIC 16 Electrical Energy and Capacitance
TOPIC 17 Current and Resistance

EXAM 1 Tuesday, September 17

TOPIC 18 Direct Current Circuits
TOPIC 19 Magnetism
TOPIC 20 Induced Voltages and Inductance

EXAM 2 Thursday, October 10

TOPIC 13 Vibrations and Waves
TOPIC 14 Sound
TOPIC 21 Electromagnetic Waves

EXAM 3 Tuesday, November 5

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TOPIC 22	Reflection and Refraction	
TOPIC 23	Mirrors and Lenses	
TOPIC 24	Wave Optics	9

EXAM 4 Tuesday, November 25

TOPIC 28	Atomic Physics	29.1 thru 29.6
TOPIC 29	Nuclear Physics	30.1 thru 30.5

Comprehensive Problems

FINAL EXAM Thursday, December 12, 1:20 PM – 3:20 PM

ETSU Syllabus Attachment

https://www.etsu.edu/curriculum-innovation/syllabusattachment.php