

PHYS161 General Physics: Mechanics and Particle Dynamics

(3 credits) Grade Method: REG/P-F/AUD. CORE Physical Science (PS) Course.

Pre- or corequisite: MATH141. Credit will not be granted for PHYS171 and PHYS161 or PHYS141 or former PHYS191. First semester of a three-semester calculus-based general physics course. Laws of motion, force, and energy; principles of mechanics, collisions, linear momentum, rotation, and gravitation.

Physics Clinic, PHY 1214, MTWHF 11, 1, 2.

Text: Knight: Physics for Scientists and Engineers – Second Edition. Chapters 1 to 13 inclusive.

0401 (56760) J. Streets (Seats=30, Open=7, Waitlist=0) [Books](#)

M..... 7:00pm- 8:50pm ([PHY 1410](#))

W..... 7:00pm- 7:50pm ([PHY 1410](#))

W..... 8:00pm- 8:50pm ([PHY 1219](#)) Dis

0402 (56761) J. Streets (Seats=30, Open=17, Waitlist=0) [Books](#)

M..... 7:00pm- 8:50pm ([PHY 1410](#))

W..... 7:00pm- 7:50pm ([PHY 1410](#))

W..... 6:00pm- 6:50pm ([PHY 1219](#)) Dis

0403 (56762) J. Streets (Seats=30, Open=1, Waitlist=0) [Books](#)

M..... 7:00pm- 8:50pm ([PHY 1410](#))

W..... 7:00pm- 7:50pm ([PHY 1410](#))

M..... 6:00pm- 6:50pm ([PHY 1219](#)) Dis

Contact Information and Office hours

Please send email to arrange a time to meet for office hours.

Lecturer

- Dr Jon Streets, streets@umd.edu

Teaching assistant

- Patrick Stanger, (pstanger@umd.edu)

Labs

A physics course with no Labs!

Discussions

Room number 1219.

Lecture Schedule - Room 1410

Week	Chapter
January 24, 26	1, 2 (26 January snow-day)
January 31, February 2	2, 3, 4
February 7, 9	5, Review 1-4
February 14	Mid Term I (Chapters 1-4)
February 16	6
February 21, 23	6, 7
February 28, March 2	7, 8
March 7, 9	Review 5-8
March 14	Mid Term II (Chapters 5-8)
March 16	9
March 21, 23	SPRING BREAK
March 28, 30	9, 10
April 4, 6	10, 11
April 11, 13	Review 9-11
April 18	Mid Term III (Chapters 9-11)
April 20	12
April 25, 27	12, 13
May 2, 4	Review
May 9	Review
May 10	LAST DAY OF CLASSES
Friday May 13 th 6.30pm-8.30pm BPS 1250 Biology-Psychology building	Final (Chapters 1-13)

Grading

Homework	20%	
Mid-Terms (best 2 of 3)	45%	Equation sheet + calculator
Final	35%	Equation sheet + calculator

Grades will be submitted to UMEGS no later than 9pm ?? May 2011.

Homework

There will be about 10 problems per week set from the text. Answers are due in on the Mondays given in the table. They will be graded and returned in the discussion period in the following week.

Homework Chapter	Due in at 7pm on
1 Concepts of Motion	None
2 Kinematics in One Dimension	7 February
3 Vectors and Coordinate Systems	7 February
4 Kinematics in Two Dimensions	7 February
No Homework – Mid Term I	14 February
5 Force and Motion	21 February
6 Motion Along a Line	28 February
7 Newton's Third Law	7 March
No Homework – Mid Term II	14 March
Spring Break	21 March
8 Motion in a Plane	28 March
9 Impulse an Momentum	4 April
10 Energy	11 April
No Homework - Mid Term III	18 April
11 Work	25 April
12 Rotation of a Rigid Body	2 May
13 Newton's Theory of Gravity	None

Exams

There will be three 80-minute examinations and one final 120-minute exam. Your lowest exam score on the three 80-minute exams (not the final) will be dropped. The exam will include problems and conceptual questions. You are responsible for showing up on time with a working calculator. A separate handout containing physics constants and equations will be provided. Make up exams will be given only under extraordinary circumstances, and if arrangements are made with me ahead of time. If you miss one exam due to serious illness or other extraordinary circumstances, that will be the exam that is dropped. If you miss two exams due to serious illness or other extraordinary circumstances, please contact me so we can make arrangements.

Academic Integrity

Along with certain rights, students also have the responsibility to behave honorably in an academic environment. Academic dishonesty, including cheating, fabrication, facilitating academic dishonesty, and plagiarism will not be tolerated. Any abridgement of academic integrity standards will be referred directly to the Assistant Dean and forwarded to the University's Office of Judicial Affairs. Confirmation of such incidents can result in expulsion from the University. Students who are uncertain

as to what constitutes academic dishonesty should consult the University publication entitled Academic Dishonesty.

Of course, you must work by yourself on exams. You are allowed to work with other students, your TA and your instructor on your homework. However, you should not just directly copy from them. Doing so is not only dishonest, it will hurt your ability to do the problems on the exams.

You should also be aware of the University of Maryland Honor Pledge. Information can be found at <http://www.inform.umd.edu/honorpledge/>

The Honor Pledge is a statement undergraduate and graduate students should be asked to write by hand and sign on examinations, papers, or other academic assignments not specifically exempted by the instructor. The Pledge reads:

"I pledge on my honor that I have not given or received any unauthorized assistance on this assignment/examination."