

PHYSICS 211
Summer 2009 Syllabus

Instructor: Dr. Darin Zimmerman
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Office Hours: come and see me
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Meeting Time / Place: MTWR, 10:25a - 12:55p / 210 HOLT

Textbook: *Physics for Scientists and Engineers with Modern Physics (2/e)* by Randall. D. Knight

Course Description: This is the first course in a four-course sequence. In classical mechanics, we cover linear, rotational, and oscillatory motion; force and torque that "cause" changes in motion; energy, momentum and gravitation.

Grade Weighting: Homework (15%) + Quizzes (20%) + Labs (15%) + Exam 1 (15%) + Exam 2 (15%) + Final (20%)

Letter Grades: Exam scores will be renormalized and averaged with the other areas and compared to this scale:
A (94-100), **A-** (90-94), **B+** (87-90), **B** (83-87), **B-** (80-83), **C+** (75-80), **C** (70-75), **D** (60-70), **F** (<60)

Homework: Homework will be assigned and turned in. I will assign a grade based on my assessment of the degree of completion. At times, I may grade one particular problem and base your assignment grade on that problem. I strongly suggest you work hard at completing it since I also base the quizzes on the typical homework problem.

Quizzes: We will have chapter quizzes that will be similar to one of the previously assigned homework problems. *There will be no make-up quizzes*; however, I will drop your two lowest.

Labs: You must attend *all* the labs and you must pass the lab (60% or better) to pass the course.

Exams: Exam problems will also be similar to the homework/quiz problems. Each exam will typically consist of 4 – 5 problems and the Final Exam will be cumulative. ***There will be no make-up exams except in very exceptional cases.*** In terms of illness, an exceptional case is one in which your illness is severe enough that you are under the care of a doctor on the day of the exam. Other examples of exceptional cases would include car accidents, a death in the family, or other unforeseen emergency (something that threatens life or property). In the case of a foreseen illness, you must notify me by email or phone, letting me know of your circumstances. For more information regarding Penn State's class attendance policy, see: http://www.psu.edu/dept/ufs/policies/separate_policy/42-27.htm

Academic Integrity: Cases of academic dishonesty (cheating, plagiarism, fraud, etc.) will be dealt with harshly. Consequences for such behavior may include receiving a failing grade on the exam or in the course and in more serious cases, permanent expulsion from the University. For the details, see *The Student Guide to University Policies and Rules*.

Class Cancellation: In the event that snow or other inclement weather forces a delay or a closing of the campus, class may be cancelled. If this happens you may call my voicemail number above and I will inform you as to whether or not class is indeed cancelled.

Comments: Traditionally, a course in physics may be the most difficult subject you encounter in your college career. At the same time it can be one of the most interesting (even if you're not a physics major). One key to your success will be to complete all of the assigned homework. Just as with any acquired skill, practice will sharpen your ability to solve the problems. My mission is to facilitate your learning and provide you with the tools to complete the work. I will try to provide you with an underlying motivation for the topics we are studying that will make the course more interesting and enjoyable for you. I make myself available for help so you should not hesitate to come to my office when you are struggling (come by even if you're not struggling!). You should feel free to approach me with questions and problems - no matter how "stupid" or "simple" you think they might seem.

Physics 211 Summer 2009 Class Schedule (Always subject to change...)

Week	Date	Day	Chapter: topics (homework problems)
1	May 11	M	1: Concepts of motion (C4, C7, C8,7,9,17,18,24,28,33); 2: Kinematics in 1-d (C7,2,9,14,17,20,31,47,60,62,66)
	12	T	3: Vectors (6,10,14,20,23,27,30,34,37)
	13	W	4: Kinematics in 2-d (C4,C5,5,12,13,16,20,24,25,27,35,44,49,53,60,66)
	14	Th	5: Force and motion (C5,C6,C11,C13,C14,2,4,8,10,27,33,35,47,48) / Ch. 1 – 3 Quiz 6: Dynamics (along a line) (C7,C16,C22,1,3,6,11,22,26,31,34,46) / Ch. 4 Quiz
2	18	M	Ch. 5 Quiz
	19	T	<u>Lab 1: Drag forces</u> / Ch. 6 Quiz
	20	W	<u>Lab 2: Friction</u> / Review for Exam 1
	21	Th	EXAM 1 (Ch. 2 – 6)
3	25	M	Memorial Day – No class
	26	T	7: Newton's 3 rd law (C5,C6,C8,C13,6,7,9,20,23,26,29,32,36,39)
	27	W	8: Dynamics in a plane (C3,C4,C10,5,9,16,18,20,23,31,33,36,40,42,45)
	28	Th	9: Impulse & momentum (C7,C12,C14,3,7,11,15,18,20,24,28,37,48,59) / Ch. 7 Quiz
	29	F	Finish 9 & Start 10: Energy (C7,C13,C14,6,10,13,18,21,24,30,35,42,49,54) / Ch. 8 Quiz
4	June 1	M	<u>Lab 3: Centripetal force</u> / Ch. 9 Quiz
	2	T	11: Work (C5,C7,C11,2,4,8,11,16,18,29,30,32,33,45,48,55,63,68) / Ch. 10 Quiz
	3	W	12: Rotation of a rigid body (C3,C4,C5,C11,2,7,10,17,22,29,37,45,57,70,71,72,88)
	4	Th	Review for Exam 2 / Ch. 11 Quiz
5	8	M	EXAM 2 (7 – 11)
	9	T	13: Newton's theory of gravity (C6,C8,C9,5,6,14,17,24,31,37,46,50,59,63) / <i>Today is the Late Drop Deadline</i>
	10	W	Ch. 12 Quiz
	11	Th	Catch-up / problem solving
6	15	M	14: Oscillations (C1,C8,5,9,11,13,14,19,20,21,27,30,40,44,49,54,58,69)
	16	T	Ch. 13 Quiz
	17	W	<u>Lab 4: Simple harmonic motion</u>
	18	Th	Review for Final Exam
	19	F	FINAL EXAM (10:25am – 12:25pm)

UPDATED 05/05/09