

2:30 and 3:30 Lectures**Instructor:** Prof. Tom Gramila**Office:** PRB - Room 2054**Email:** gramila.1@osu.edu (Please include "Physics 132" in the subject line.)**Text (required):** Fundamentals of Physics. Halliday, Resnick and Walker (Wiley).
Extended 8/E, Binder Ready Version with WebAssign.
ISBN: 978-0-4704-3956-4**Laboratory Manual (required):** Physics 132 Laboratory Activities and Worksheets.
3rd Edition. ISBN: 978-0-7380-3709-7**Grades:** Recitation/Lab 15%, Homework 15%, Quizzes 20%, Midterm 20%, Final 30%**Course Websites:** <http://www.physics.ohio-state.edu/~phys132>
<https://carmen.osu.edu> (grades only!)
<https://www.webassign.net/osu/student.html> (HW)**Reading Assignments:** Reading assignments are listed on the syllabus, and may be updated on the course website. You should complete the readings prior to each lecture.**Laboratory:** The labs are held Wednesday thru Friday. Labs start in the second week of class. The laboratory consists of a combination of hands-on work and group problem-solving activities. Read over the laboratory material before attending each lab. The lowest scoring lab is dropped. There will be a bonus of 0.5% added to the course total for attending all of the labs.**Recitations:** The Tuesday recitation period will serve as an unstructured question time with your recitation instructor. Quizzes will be given during the Thursday recitation period. The focus of the recitation sessions will be to provide help in solving homework and quiz problems.**Homework:** Homework will be completed online using WebAssign. Homework is due at 11:59PM on Wednesdays unless otherwise announced. Information about WebAssign can be found in the handout labeled "On-Line Homework Instructions for Physics 131, 132 and 133".**Quizzes:** There are eight planned quizzes, with the lowest quiz grade dropped. Quizzes will be given during the Thursday recitations. The quizzes will be based on the most recent homework set, (generally due the previous day) and on the material covered in reading assignments, lectures, and the labs pertaining to that homework. You may refer to your written solutions of the most recent set of WebAssign problems during the quizzes. A calculator will be necessary. No other electronic devices are permitted.**Exams:** The midterm will be given on **Thursday, February 9**, during your recitation period. The final for the 2:30 lecture will be **Thursday March 15th 3:30 - 5:18 PM**, and for the 3:30 lecture will be **Wednesday, March 14th 3:30 - 5:18 PM**. Additional information about the midterm and final may be posted on the course website. Both exams will be closed book – no notes will be allowed, but equation sheets will be provided. A calculator is necessary. No other electronic devices are permitted. Be sure to bring your student ID.**Missed Quizzes, Exams, or Labs:** There are no make-up quizzes, exams, or labs. Missed quizzes, exams, or labs may be excused, but only with the permission of the **course manager: Dr. Michael Ziegler** (phone 292-2067; email ziegler.2@osu.edu; office Smith Laboratory 1036A). He will require documentation to show that your absence was unavoidable. See the "General Course Policy and Information" document for Physics 131-132-133 for more detailed information. That document describes all procedures required for the course.

PHYSICS 132

Syllabus

WINTER 2012

WK	DAY	DATE	LEC #	CHAPTER	TOPIC	REC	LAB	HW #
1	M	Jan 2	Holiday	-	-	Review	No Laboratory	
	T	Jan 3						
	W	Jan 4	1	21/1-3	Electric charge			
	R	Jan 5						
	F	Jan 6	2	21/4-6	Coulomb's law			
2	M	Jan 9	3	22/1-4	Electric Field & Field Lines	Quiz 1	I: Electric Force & Charge (1)	1
	T	Jan 10						
	W	Jan 11	4	22/5-8	Distributions of Charges			
	R	Jan 12						
	F	Jan 13	5	22/6-7	Continuous Distributions			
3	M	Jan 16	Holiday		-	Quiz 2	No Laboratory	2
	T	Jan 17						
	W	Jan 18	6	23/1-3	Electric Flux			
	R	Jan 19						
	F	Jan 20	7	23/4-6	Gauss' Law			
4	M	Jan 23	8	23/7-9	Applications of Gauss' Law	Quiz 3	II: Electric Field & Flux (2)	3
	T	Jan 24						
	W	Jan 25	9	24/1-4	Potential Energy & Electric Potential			
	R	Jan 26						
	F	Jan 27	10	24/5-7	Calculating Electric Potentials			
5	M	Jan 30		24/8-12	Electric Potentials & Conductors	Quiz 4	III: Electric Potential (3)	4
	T	Jan 31	11					
	W	Feb 1	12	25/1-3	Capacitors			
	R	Feb 2						
	F	Feb 3	13	25/4-6	Combining Capacitors			
6	M	Feb 6	14	26/1-3	Current	MIDTERM	IV: Capacitors & Energy (4)	5
	T	Feb 7						
	W	Feb 8	15	26/4-7	Resistance & Ohm's Law			
	R	Feb 9						
	F	Feb 10	16	27/1-4	Single-Loop Circuits			
7	M	Feb 13	17	27/5-7	Multi-Loop Circuits	Quiz 5	V: Electrical Resistance (5)	6
	T	Feb 14						
	W	Feb 15	18	27/8-9	RC Circuits			
	R	Feb 16						
	F	Feb 17	19	28/1-3	Magnetic Fields			
8	M	Feb 20	20	28/3,6,8	Magnetic Forces	Quiz 6	VI: Electric Circuits I&II (6/7)	7
	T	Feb 21						
	W	Feb 22	21	28/8,9	Examples of Magnetic Forces			
	R	Feb 23						
	F	Feb 24	22	29/1-2	Generation of Magnetic Fields			
9	M	Feb 27	23	29/2-3	Biot-Savart Law	Quiz 7	VII: Magnetic Fields I (8)	8
	T	Feb 28						
	W	Feb 29	24	29-4,5	Ampere's Law			
	R	Mar 1						
	F	Mar 2	25	30/1-4	Faraday's Law			
10	M	Mar 5	26	30/1-4	Applications of Faradays's Law	Quiz 8	VIII: Magnetic Fields II (9)	9
	T	Mar 6						
	W	Mar 7	27	30/4,7,8	Inductance			
	R	Mar 8						
	F	Mar 9	28	30/9-12	Mutual Inductance			

Topics covered in any given lecture may deviate from the list given above.
 The final for the 2:30 lecture will be **Thursday March 15th 3:30 - 5:18 PM**
 The final for the 3:30 lecture will be **Wednesday, March 14th 3:30 - 5:18 PM**
 Please check the course website and/or Carmen for any updates.