

**4:30 and 5:30 Lectures**

**Instructor:** Prof. Tom Gramila  
**Office:** Smith Lab Room 1046      **Phone:** (614) 292-7357 (Email is preferred.)  
**Email:** gramila.1@osu.edu (Please include "Physics 132" in the subject line.)  
**Office Hours:** To Be Announced

**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 Tuesday through 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 8:00am 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.

**Exams:** The midterm will be given on **Thursday, February October 29**, during your recitation period. The final for the 4:30 lecture will be **Thursday March 18th 3:30 - 5:18 PM**, and for the 5:30 lecture will be **Wednesday March 17th 3:30 - 5:18 PM**. Details about the midterm and final will 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. 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. Ed Adelson** (phone 292-2067; email [adelson@mps.ohio-state.edu](mailto:adelson@mps.ohio-state.edu); office Smith Laboratory 1036A). He will require documentation to show that your absence was unavoidable. See the General Information sheet for Physics 131-132-133 for more detailed information. That document describes all procedures required for the course.

**PHYSICS 132**

**Syllabus**

**WINTER 2010**

WK	DAY	DATE	LEC #	CHAPTER	TOPIC	REC	LAB	HW #
1	M	Jan 4	1	21/1-3	Electric charge	Review		
	T	Jan 5						
	W	Jan 6	2	21/4-6	Coulomb's law			
	R	Jan 7						
	F	Jan 8	3	22/1-4	Electric Field & Field Lines			
2	M	Jan 11	4	22/5-8	Distributions of Charges	Quiz 1	I: Electric Force & Charge (1)	1
	T	Jan 12						
	W	Jan 12	5	22/6-7	Continuous Distributions			
	R	Jan 14						
	F	Jan 15	6	23/1-3	Electric Flux			
3	M	Jan 18	Holiday		-	Quiz 2	II: Electric Field & Flux (2)	2
	T	Jan 19						
	W	Jan 20	7	23/4-6	Gauss' Law			
	R	Jan 21						
	F	Jan 22	8	23/7-9	Applications of Gauss' Law			
4	M	Jan 25	9	24/1-4	Potential Energy & Electric Potential	Quiz 3	III: Electric Potential (3)	3
	T	Jan 26						
	W	Jan 27	10	24/5-7	Calculating Electric Potentials			
	R	Jan 28						
	F	Jan 29	11	24/8-12	Electric Potentials & Conductors			
5	M	Feb 1	12	25/1-3	Capacitors	Quiz 4	IV: Capacitors & Energy (4)	4
	T	Feb 2						
	W	Feb 3	13	25/4-6	Combining Capacitors			
	R	Feb 4						
	F	Feb 5	14	26/1-3	Current			
6	M	Feb 8	15	26/4-7	Resistance & Ohm's Law	MIDTERM	V: Electrical Resistance (5)	5
	T	Feb 9						
	W	Feb 10	16		REVIEW			
	R	Feb 11						
	F	Feb 12	17	27/1-4	Single-Loop Circuits			
7	M	Feb 15	18	27/5-7	Multi-Loop Circuits	Quiz 5	VI: Electric Circuits I (6)	6
	T	Feb 16						
	W	Feb 17	19	27/8-9	RC Circuits			
	R	Feb 18						
	F	Feb 19	20	28/1-3	Magnetic Fields			
8	M	Feb 22	21	28/3,6,8	Magnetic Forces	Quiz 6	VI: Electric Circuits II (7)	7
	T	Feb 23						
	W	Feb 24	22	28/8,9	Examples of Magnetic Forces			
	R	Feb 25						
	F	Feb 26	23	29/1-2	Generation of Magnetic Fields			
9	M	Mar 1	24	29/2-3	Biot-Savart Law	Quiz 7	VII: Magnetic Fields I  (8)	8
	T	Mar 2						
	W	Mar 3	25	29-4	Ampere's Law			
	R	Mar 4						
	F	Mar 5	26	29/5	Applications of Ampere's Law			
10	M	Mar 8	27	30/1-4	Faraday's Law	Quiz 8	VIII: Magnetic Fields II (9)	9
	T	Mar 9						
	W	Mar 10	28	30/4,7,8	Inductance			
	R	Mar 11						
	F	Mar 12	29	30/9-12	Mutual Inductance			

Topics covered in any given lecture may deviate from the list given above.  
 The final for the 4:30 lecture will be **Thursday March 18th 3:30 - 5:18 PM**  
 The final for the 5:30 lecture will be **Wednesday March 17th 3:30 - 5:18 PM**  
 Please check the course website for any updates.