

PHYS 186
College Physics II
Truman State University - Spring 2001

Meetings:

Lecture (03) [1729]: Barnett 251, MT H 03:30p - 04:20p
Lab #1 (56) [1735]: Barnett 150, W 01:30p - 03:20p
Lab #2 (57) [1736]: Barnett 150, H 08:00a - 09:50a
Lab #3 (58) [1737]: Barnett 150, H 10:00a - 11:50a

Instructor: Rob Salgado

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www: <http://www2.truman.edu/~rsalgado/>

Office hours: consult the webpage above
or DROP BY MY OFFICE or MAKE AN APPOINTMENT (by email).
NEW: AOL Instant Messenger (buddy name: **phys186**)

Catalog Description: Maxwell’s synthesis of electricity and magnetism in the mid-nineteenth century led to unexpected knowledge about the nature of light. It opened the door to a whole new world view developed by twentieth century physicists and paved the way for the technological revolution that characterizes modern life. Students will make extensive use of algebra and trigonometry in applying the fundamental laws of classical physics to real-world problems, and will explore the physicists approach to inquiry through laboratory investigations. [Prerequisite: PHYS 185 (College Physics I)].

Textbook: Cutnell and Johnson. *Physics: 5th edition.* (*The 4th edition is acceptable... however, problems will be assigned from the 5th edition.*)

If you are not happy with the textbook, find another one from the library! (I did this for every class I took!)

Electronic Materials: I will maintain a webpage that lists the assigned problems and solutions. Please refer to:

I will post solutions here.

<http://www2.truman.edu/~rsalgado/186/>

Labs: Lab-sheets will be available only from:

<http://www2.truman.edu/~rsalgado/186/labs/>

Make sure that you have printed out and read the lab before attending your lab section. Although you will work on the lab in groups, each student is to complete his/her own lab-sheet. **YOU WILL KEEP ALL OF YOUR COMPLETED LABS IN A BINDER, WHICH WILL BE COLLECTED UPON REQUEST BEFORE MIDTERM AND BEFORE THE END OF THE SEMESTER.**

• READ THIS PART CAREFULLY.

Homework: Homework will be assigned but not be collected. However, I guarantee that at least one of those problems will appear on a quiz or exam. You are encouraged to work on the homework with other students. However, be sure that you can do the problems by yourself since you’ll be working by yourself on a quiz or exam. (*The Society of Physics Students (“SPS”) offers free tutoring. Watch for their posted announcements.*)

Most of the learning you do in this class is done by **doing homework problems outside of class!**

Quizzes: (taken during lab) Quizzes will be given at the end of each chapter, based on the assigned homework. They will be announced in advance. Each quiz will be given at the START of the lab-period and will end 15 minutes after the start of the lab-period. NO EXCEPTIONS.

Don’t be late.

Exams: (taken during lecture) There are THREE one-hour-exams and ONE (part-cumulative) two-hour final at

3:30p-5:20p THURSDAY, MAY 3.

Each exam will be based on a range of chapters covered in the course. *It WILL include questions relating to an activity you did in lab.* The final exam will cover the last chapter(s) as well as a “cumulative” part covering all of the other chapters.

Grades:

- 20% Lab
- 15% Quizzes
- 45% 50-min Exams (3 × 15%)
- 20% Final exam

A=87+, B=77+, C=67+, D=57+, F<57.

This class is not graded on a curve.

Borderline cases (between two letter grades): If your exams show an upward trend or you are an active participant in class, you'll be nudged upwards.

Missed exams, quizzes, and labs:

Missed exams may only be made-up with a valid written excuse.

Missed quizzes cannot be made-up. (*Since I will drop the lowest quiz grade, the first missed quiz will be dropped.*)

Missed labs cannot be made-up. (*Since I will drop the lowest lab grade, the first missed lab will be dropped.*)

Course outline:

Sun Mon Tue Wed Thu Fri Sat

Sun	Mon	Tue	Wed	Thu	Fri	Sat	
							January
	8	9		11			Ch 16 Waves and Sound [[Dr. Velasco]] ((no labs))
(15)	16			18			[more] Ch 16; Ch 18 Electric Forces and Fields
	22	23	()	25			[more] Ch 18 ((no labs))
	29	30					[more] Ch 18; Ch 19 Electric Potential and Potential Energy
							February
						1	[more] Ch 19
	5	6		8			EXAM 1: THU, FEB 8
	12	13		15			Ch 20 Electric Circuits (Resistors, Capacitors)
	19	20		22			[more] Ch 20
	26	27					Ch 21 Magnetic Forces and Fields
							March
						1	[more] Ch 21
[5	6			8]			
	12	13		15			EXAM 2: TUE, MAR 13 ; [more] Ch 21 (AMPERE)
	19	20		22			[more] Ch 21; Ch 22 Electromagnetic Induction (FARADAY)
	26	27	(29)				[more] Ch 22; Ch 18.9 (GAUSS) ((no labs))
							April
	2	3		5			Ch 24 Electromagnetic Waves (MAXWELL)
	9	10		12			EXAM 3: MON, APR 9; Ch 25 The reflection of light (optics)
(16)	17			19			[more] Ch 25
	23	24		26			Ch 26 The refraction of light (optics)
	30						[more] Ch 26
							May
		1		[[3]]			EXAM 4: THU, MAY 3 3:30p-5:20p