

Fall 2009

PHYS 214: Introduction to Physics II

Instructor: Dr. Jeremy Qualls

Course Description: Lecture, 4 hours. The continuation of PHYS 114. Electrostatics, quasistatic fields and currents, magnetostatics; electromagnetic induction; waves; physical and geometric optics. Prerequisites: PHYS 114; previous or concurrent enrollment in MATH 211.

Class Meeting Time: 11:00-11:50 am M,W,F (Dar 35)
11:00-11:50 am Thursday (Art building 102)

Welcome to the second semester of calculus based physics. You will find that the class enrollment for this class will be relatively small; however the class is very dynamic and fun. You will also find that the more time you put into learning the material and practicing problems the more you will enjoy the class. Class attendance as well as developing your problem solving skills is critical in the course. Expect to interact with me and your peers during the class. I utilize online homework submission and grading through WebAssign.

Learning Objectives <http://www.phys-astro.sonoma.edu/learningobjectives.doc>

Text: We will be using the text implemented for PHYS 114. Physics for Scientists and Engineers, 7th Edition, by Raymond A. Serway, and John W. Jewett, published by [Cengage](http://www.cengage.com). If you do not already have a webassign code, the access code can be purchased (online price is listed at \$20).

Exams and Quizzes:

You are encouraged to develop and use your own formula sheets for homework problem sessions. The formula sheets may be used during the quizzes and exams as long as it receives approval from me. The formula sheet should not have problems worked out, text, or illustrations. You are responsible for material in the textbook and material that is covered during class discussion.

Homework:

Homework will be posted and graded through WebAssign with deadlines provided for each assignment. Note: during the exams and quizzes you will not be allowed to collaborate. Please go to the URL listed and self register into the course <https://www.webassign.net/login.html> if needed our class key is **sonoma 1394 0974**

Grading Policy:

Exam Average	60%
Quiz Average	20%
Homework Average	20%

Information and Announcements

Announcements and extra material will be posted through the WebAssign site. Also my homepage is <http://phys-astro.sonoma.edu/people/faculty/qualls> and it also has some nice links and a review of my research here at SSU.

Professor's Information

Dr. Jeremy Qualls	Ph.D.: 1999 Florida State University
Office: Darwin 300K	Lab: Darwin 303
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Research Interest: Material Science, High Magnetic fields, Low Temperature Physics	

Below is my current tentative schedule this semester. I have an open door policy regarding office hours. If I am around please feel free to ask questions regarding the course or research at SSU.

Tentative Fall 2009 Schedule for Dr. Qualls

	MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY
9:30 am			9:30-11:00 Office Hour		
11:00 am	PHYS 214 Darwin 35		PHYS 214 Darwin 35	PHYS 214 Art 102	PHYS 214 Darwin 35
12:00 pm	Lunch		Lunch	Lunch	Lunch
1:00 pm	PHYS 460 Ives Hall 35		PHYS 460 Ives Hall 35	PHYS 216 Darwin 311	STUDENT RESEARCH
2:00 pm					
	2:30-4:00		Department Meeting		
3:00 pm	Office Hours				
4:00 pm	What Physicist Do				
5:00 pm – 7:40 pm	Dinner with speaker	PHYS 209A Darwin 308			

University Policies

There are important University policies that you should be aware of, such as the add/drop policy; cheating and plagiarism policy, grade appeal procedures; accommodations for students with disabilities and the diversity vision statement. (Go to this URL to find them: <http://www.sonoma.edu/uaffairs/policies/studentinfo.shtml>)

Tentative Class Schedule

Topic	Date
Chapter 16 Waves	
Chapter 17 Sound	
Chapter 18 Super Position	
Quiz	Sep. 9
Chapter 23 Electric Field	
Chapter 24 Gauss Law	
Quiz	Sep 18
Chapter 25 E Potential	
Exam 1	Sep. 25
Chapter 26 Capacitors	
Chapter 27 I and R	
Chapter 28 DC circuit	
Quiz	Oct 14
Chapter 29 Magnetic Field	
Chapter 30 B Sources	
Chapter 31 Faraday's Law	
Quiz	Oct 29
Chapter 32 Inductance	
Exam 2	Nov 4
Chapter 33 AC circuit	
Chapter 34 EM radiation	
Quiz	Nov 11
Chapter 35 Light	
Chapter 36 Images	
Chapter 37 Interference	
Chapter 38 Diffraction	
Exam 3	Dec 7
Review	
<u>Final Exam</u>	<u>Monday, Dec 14</u> 11 a.m.-12:50 p.m.

Note: A number of days must be established as furlough days in agreement with CFA and Sonoma State University to address budget concerns. You will be notified as soon as those dates are established. On furlough days no courses will be taught and Dr. Qualls will be unavailable that day.

Here are the days I have requested as Furlough Days. After these dates have been approved I will notify the class.

September 8, 28

October 30

November 2,20,23,24

December 11, 15