Physics 1308
General Physics
Summer 2017
Course Information

Course Web page: http://edugen.wileyplus.com/edugen/class/cls581128/
We use in this course an online system - WileyPLUS - for distributing homework, grading homework, and providing feedback on your performance in the course. It is you responsibility to master the usage of the system, as it is the primary way in which you will submit your homework and self-assess your performance in the class. If you have any problems, contact the class instructor IMMEDIATELY.

- **Lectures:** M-F 9:00 am-10:50 am, in Room 158 FS Bldg

- **Lecturer:** Professor Roberto Vega
  - Office: Room 102 Fondren Science
  - Office hours: Tuesdays and Wednesdays 1:00-2:00 pm, or by appointment
  - Phone: (214) 768-2498
  - Fax: (214) 768-4095
  - E-mail: rvega@smu.edu

- **Suggested Textbook:** Halliday, Resnick, and Walker, "Fundamentals of Physics"

- **Laboratory:** Complete information can be found at: http://www.physics.smu.edu/rguarino/labemsp13/

- **Course Schedule** as posted on WileyPlus site; also included are reading assignments, exam dates, and homework assignments.

- **Class TA:** Jing, Xiaoxian, xjing@mail.smu.edu

- **Grading**: Homework (5%), Class Work which include in class exercises, reading and pop quizzes (30%), three partial exams (30%), and final exam (35%). Grading policy in details is posted on the Wileyplus site.

- **Objectives:** Upon successful completion of this course, students will be able to:
  - 1) demonstrate basic facility with the methods and approaches of scientific inquiry and problem-solving
  - 2) explain how the concepts and findings of physics shape our world

- 3) solve short and extended problems in introductory electromagnetics

- **Student Learning Outcomes.**

Upon successful completion of this course, students will meet the expectations from the Quantitative Reasoning student learning outcomes:

- Students will be able to develop quantitative models appropriate to problems in Physics.
- Students will be able to assess the strengths and limitations of quantitative models and methods used in Physics.
- Students will be able to apply symbolic systems of representation.
- Students will be able to collect, organize and analyze data from a variety of sources.
  Students will be able to formulate structured and logical arguments.
- Students will be able to test hypotheses and make recommendations or predictions based on results.
- students will be able to communicate and represent quantitative information or results numerically, symbolically, aurally, visually, verbally, or in writing.

Students will also meet these expectations from Pure and Applied Sciences student learning outcomes:

Students will be able to demonstrate basic facility with the methods and approaches of scientific inquiry and problem solving.

Students will be able to explain how the concepts and findings of science or technology in general, or of particular sciences or technologies shape our world.

How this course achieves these Student Learning Outcomes:

The above objectives will be achieved through: participation in in-class discussion of lecture and reading materials; discussion with the lead instructor(s) of reading and lecture during regular office hours; successful completion of routine homework assignments; successful completion of in-class quizzes and several in-class examinations. In addition, students are expected to show proficiency in the application of these ideas through a parallel laboratory course.

Disability Accommodations

- Disability Accommodations: Students needing academic accommodations for a disability must first be registered with Disability Accommodations & Success Strategies (DASS) to verify the disability and to establish eligibility for accommodations. Students may call 214-768-1470 or visit http://www.smu.edu/alec/dass.asp to begin the process. Once registered, students should then schedule an appointment with the professor to make appropriate arrangements.

- Religious Observance: Religiously observant students wishing to be absent on holidays that require missing class should notify their professors in writing at the beginning of the semester, and should discuss with them, in advance, acceptable ways of making up any work missed because of the absence. (See University Policy No. 1.9.)

- Excused Absences for University Extracurricular Activities: Students participating in an officially sanctioned, scheduled University extracurricular activity should be given the opportunity to make up class assignments or other graded assignments missed as a result of their participation. It is the responsibility of the student to make arrangements with the instructor prior to any missed scheduled examination or other missed assignment for making up the work. (University Undergraduate Catalogue)

  Anonymous comments or gripes are welcomed.

- **Helpful Websites**
  - Study tips for introductory-physics students
  - The Hecht Companion Site is designed for Hecht's algebra-based text, but the site is also useful for users of his calculus-based text
  - In the Physics Classroom, you can explore various physical phenomena cleverly illustrated using cool animations
  - Learn Cockpit Physics at the U.S. Air Force Academy. Strap on your jet and takeoff
  - Links to cool mechanics simulations
  - Online biography of Sir Isaac Newton (1643-1727)

Syllabus for Physics 1308 Summer 2017

Class	Week	Lecture Topic	Text Reading	Helpful Links
1	1	Introduction, Electric Charge	21-1 to 21-3	
		Coulombs Law	21-4 to 21-6	
		Electric Fields	22-1 to 22-5	
2		Dipole in Electric Fields	22-6 to 22-9	
		Continuos Charge Distributions	22-4 to 22-5	
		Charges in Conductors		
3	2	Electric Potential	24-1 to 24-8	
4				
5		Capacitance	Chapter 25	
6		Current and Resistence	26-1 to 26-4	
7		Group problems		
8	3	Circuits	Chapter 27	
9		Magnetic Fields	28-1 to 28-5	
10		Magnetic Fields Cont.	28-6 to 28-8	
11		Magnetic fields due to currents	Chapter 29	
12		Group Problems		
13	4	**Mid Term**		
14		Induction and Faradays Law	Chapter 30	
15		Maxwells' Equations	Chapter 32	
16		Electromagnetic Waves	Chapter 33	
17		Polarization, Group Probs.		
18	5	Geometrical Optics	Chapter 34	
19				
20		Diffraction	Chapter 36	
21		Group Problems		
22		**Final Exam**		