

## Physics 1402 – College Physics II Course Syllabus

### **Contact Information**

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### **Course Information**

Course: Physics 1402

Lecture/ Lab:

Text: College Physics (8<sup>th</sup> ed.) Serway /Vuille

Physics Web Page: <http://www.odessa.edu/dept/physics/lestep/>

### **Course Prerequisites**

PHYS 1401 (College Physics I)

### **Course Description**

This course is a study of classical electricity, magnetism, mechanical wave motion, optics, and practical aspects of modern physics. The student will be involved in reading information or problems and using critical thinking skills and mathematics to organize the information or to arrive at an answer; also requires student writing skills in order to communicate the information acquired in a written format. (SCANS 1, 3, 6, 9)

### **Course Objectives & Student Learning Outcomes**

The objective of the study of a natural sciences component of a core curriculum is to enable students to understand, construct, and evaluate relationships in the natural sciences, and to enable the student to understand the bases for building and testing theories.

General outcomes and objectives for this course include:

1. To understand and apply methods and appropriate technology to the study of natural sciences.
2. To recognize scientific and quantitative methods and the differences between these approaches and other methods of inquiry and to communicate findings, analyses, and interpretation both orally and in writing.
3. To identify and recognize the differences among competing scientific theories.
4. To demonstrate knowledge of the major issues and problems facing modern science, including issues related to ethics, values, and public policies.
5. To demonstrate knowledge of the interdependence of science and technology and their influence on, and contribution to, modern culture.

Specific outcomes and objectives for this course include:

1. To obtain the intellectual ability to translate, interpret, and extrapolate the most important scientific models and laws governing electric and magnetic forces and fields, DC & AC electronic circuits, and electromagnetic waves.
2. To further develop critical thinking and problem solving skills in the area of physics and the natural science.

Laboratory learning outcomes and objectives include:

1. To complete the introductory physics learning experience through quantitative laboratory experimentation, with focus on the specific learning objective concepts within the course.
2. To continue to learn and practice sound scientific methods as evidenced by satisfactory assessments of laboratory notebook record keeping, laboratory reports and assignments, and required laboratory procedures.

### **Course Attendance**

Course attendance is the responsibility of the student. Excessive absences will not result in a student being dropped from a course. Attendance will be taken in class.

### **Academic Honesty**

Odessa College expects its students to maintain complete honesty and integrity in their academic pursuits. Students are responsible for understanding the code of Student Conduct found in the student handbook. Cheating will not be tolerated in any form.

### **Students with Disabilities**

Odessa College complies with Section 504 of the Vocational Rehabilitation act of 1973 and the ADA of 1990. Students with special needs or issues pertaining to access and participation in this class must contact me immediately. Further, you may call the Office of Disability services at 432.335.6861 to request assistance and accommodations.

### **Late Work Policy**

Homework is due on the assigned date. Late homework will only be accepted if a valid reason is provided for the work being late. If no valid reason is provided, then 20% reduction in grade will occur for each day late. Any given pre-lab assignments are due at the beginning of the laboratory. Completed laboratory reports are to be turned in at the beginning of the next lab period.

### **Course Evaluation**

Course grades are a culmination of weekly homework assignments, daily quizzes, weekly labs, and exam grades. The percent breakdown for each of these is as follows:

25%	Homework
25%	Labs
50%	Exams

While the laboratory constitutes only 25% of the course grade, it is important to understand that physics is fundamentally a laboratory-based science. Therefore, a failing grade in the lab will result in a failing grade in the course. While you will never receive a score lower than that actually earned, I do reserve the right to rescale grades as I see fit at any time during the semester. Final grades will be assigned as follows:

A	90 – 100
B	80 – 89
C	70 – 79
D	60 – 69
F	00 – 59

### **Cell Phone and Laptop Use in Class**

Cell phones are to be set on vibrate while in class or lab. You may at any time excuse yourself from the classroom to attend to your personal business. There will be no cell phone use allowed in class. With cell phone or laptops, no texting or internet surfing will be allowed. During exams, in order to maintain integrity of the testing environment, all cell phones will be required to be turned off.

**Video /Audio Recording**

Video /audio recording of lectures or class activities is strictly prohibited unless special accommodations are warranted for students with disabilities. Violation of this policy will result in the student being removed from the class and receiving a grade of F.

**Food and Drink in Class or Lab**

In lecture or laboratory, while it is okay to bring something to drink into class, food of any kind is not allowed.

**Course Outline**

<b>Week</b>	<b>Dates (Week of)</b>	<b>Topics</b>	<b>Chapters</b>	<b>Labs</b>
1	17 Jan – 17 Feb	Electric Forces Electric Fields DC Circuits	Ch 21 - 25	X
2				1
3				2
4				Exam 1
5				3
6	20 Feb – 23 Mar	Magnetic Forces Magnetic Fields AC Circuits	Ch 27 - 31	4
7				5
8				Exam 2
9				6
10				8
11	26 Mar – Apr 27	EM Waves Light & Optics	Ch 32 - 36	7
12				Exam 3
13				9
14				10
15				X
16		Final Exams		Exam 4