

# Physics 1200

## Summer 2012 - 4 Week Session

**Instructor:** Tonya B. Triplett

**Office Hours:** in SER 234 Daily immediately after class or by appointment.

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Website - Use USU's Canvas program (new to me!)

**Text:** Course Reader (*required*), available in the bookstore (costs about \$11).

**Lab Fee:** Physics 1200 students were assessed a laboratory fee that is used for laboratory supplies. This should have been paid at registration.

**Goal:** The goal of this course is to acquaint you with some of the "big ideas" in physics, to let you see those ideas in action in your own experimentation, and to convince you that physics can (at least some of the time) be fun. The course will also attempt to acquaint you with some of the major players in science, the people who came up with the big ideas, how they did it, and how and on what scientists are working today.

**Materials for Persons with Disabilities:** Students with ADA-documented physical, sensory, emotional or medical impairments may be eligible for reasonable accommodations. Veterans may also be eligible for services. All accommodations are coordinated through the Disability Resource Center (DRC) in Room 101 of the University Inn, (435)797-2444 voice, (435)797-0740 TTY, or toll free at 1-800-259-2966. Please contact the DRC as early in the semester as possible. Alternate format materials (Braille, large print or digital) are available with advance notice.

Your final grade will be determined as follows:

Physics 1200	
4 Tests	600
Homework	200
Laboratory work	200
Journal	up to 25 points extra credit
Total	1000

**Tests:** will be in class and closed book, closed notes. Each will be worth 150 points. **You should always show your work or explain how you got your answer.**

**Homework:** There will be 12 homework assignments each worth 20 points. You may drop your

two lowest scores. To get credit for any homework problem, **you must show your work**. Late homework will not be accepted. Should you need to miss class, you may turn in your homework early to SER 234 or to the physics office. Homework solutions will be posted on the internet as appropriate and available during office hours for copying. Copying someone else's homework is plagiarism and will result in loss of credit for the assignment and possible disciplinary action. You are encouraged to work together on assignments, but after discussing a problem, you should write in your own words to turn in; no two papers should have identical responses.

**Laboratory:** Physics 1200 students **MUST** enroll in a lab section and complete **EIGHT** lab exercises. All labs will be held in SER 110. If you have an excused absence from a lab, contact the instructor as soon as possible, preferably in advance, to arrange to make it up.

**Journal:** We will keep a daily journal about physics questions asked at the beginning of class and often after a break. This journal is worth up to 25 points of extra credit and will be graded for completeness. The due date is on the schedule.

**Grade Scale:** Grades will be given based upon points earned.

A	940-1000	C	740-769
A-	900-939	C-	700-739
B+	870-899	D+	670-699
B	840-869	D	640-669
B-	800-839	F	<639
C+	770-799		

### Course Calendar

All calendar dates are tentative and may be changed to meet course objectives.

Date	Course Material	Homework Due	Homework Page	Assigned Numbers
<b>Jan 9-13</b>				
May 7	Chapter 1, course information			
	2-1 through 2-9			
<b>May 8</b>	<b>Lab 1</b>	<b>Race Tracks</b>		
May 8	2-10 through 2-16			
	3-1 through 3-5	Homework #1	2-11 2-15	2,3,4 1,3
May 9	3-6 through 3-9			
	4-1 through 4-6	Homework #2	3-9	2,4,5,6,7
<b>May 10</b>	<b>Lab 2</b>	<b>Force Carts</b>		
May 10	4-6 through 4-11			
May 11	<b>Exam 1</b>	Homework #3	4-10	2,5,7,10
May 14	5-1 through 5-5 Gravity			

	5-5 through 6-2 Energy			
<b>May 15</b>	<b>Lab 3</b>	<b>Roller Coasters</b>		
May 15	6-3 through 6-7 Energy Conservation	Homework #4	Last page of chapter 5	
May 16	6-8 through 6-9 Machines, Power	Homework #5	6-14	1,3,10,13
	6-9 through 6-11 Heat			
<b>May 17</b>	<b>Lab 4</b>	<b>Heat and Machines</b>		
May 17	6-12 through 6-14 Momentum, Entropy	Homework #6	6-14	14,15,16
	Problem solving			
May 18	<b>Exam 2</b>	Homework #7	6-14	5,8,9,11
May 21	7-1 through 7-4 Charge			
	7-5 through 7-9 Voltage			
<b>May 22</b>	<b>Lab 5</b>	<b>Electricity</b>		
May 22	7-10 through 7-14 Ohm's Law			
	7-15 through 7-18 Series/Parallel Circuits			
May 23	7-18 through 7-25 Power and Magnetism	Homework #8	7-16	1-5 (Both parts of 5)
May 24	<b>Exam 3</b>	Homework #9	7-18 7-25	1,2,3 1,2
<b>May 24</b>	<b>No Lab</b>			
May 25	8-1 through 8-7 Waves			
	8-8 through 8-11 resonance			
<b>May 28</b>	<b>Holiday</b>			
<b>May 29</b>	<b>Lab 6</b>	<b>Waves and Music</b>		
May 29	8-12 through 8-14 Light	Homework #10	8-16	1,2,3
<b>May 30</b>	<b>Lab 8</b>	<b>Radioactivity Done in class!</b>		
May 30	8-14 through 8-16 Optics	Homework #11	8-16	4,5,6,7
<b>May 31</b>	<b>Lab 7</b>	<b>Light</b>		
May 31	9-1 through 9-5 Radiation			<b>Journal Due Today</b>
	Health Effects of Radiation			
<b>June 1</b>	<b>Exam 4</b>	Homework #12	9-5	1,2,3