

Class: PHY 221 Winter 2006 11:00 – 12:50 p.m. T,Th 307 Strong
CRN 21350

Instructor: J. Porter

Office: 325 Strong (Office Hours 8 –10:40 a.m. M,W. Other hours by appointment.)

Text: Physics James S. Walker, Second Ed. Vol I

Supplies needed: graph paper, ruler, protractor, compass

Grading:

Laboratory -- Twenty percent of your total course grade will be based on the course laboratory. Also you must receive at least a 60% passing mark in the lab in order to pass the course. Failure in the course means that you will have to retake the lab.

The remaining 80% of your grade will be assigned on the basis of homework and tests.

Homework will be collected during the first ten minutes of each 50-minute class period. Homework assignments will usually consist of three exercises from the end of the text chapter being covered (see below). I will grade one of these and, ordinarily, return them to you on the next day which the class meets. Grades will range from zero to five points, based on format, legibility and correctness. **Units** should be included for every physical quantity. In answering, use complete sentences; if a drawing will help to explain your answer, sketch it. **For both tests and homework no credit will be given unless you include an explanation of how you arrived at you answer(s).** Pluses and minuses count 1/3 of a point to be added or subtracted. Homework should be handwritten with a **separate page for each exercise.** Please copy the question before providing your answer. **Staple** pages together before turning them in. Working in conjunction with classmates is recommended, however you will be expected to turn in only your own assignments; you may not turn in an assignment for a classmate who is not present.

Tests will normally consist of three groups of five or six problems each and will be graded on a basis of zero to five points for each group. The final exam will consist of four such problem groups for a total of twenty points. Tests are closed book and closed notes. Tests will be scored based on the same criterion as for homework. On tests you will be asked to start a fresh page for each of the three problem groups. Write your name on each page of your test and **staple** your test pages together. **Please note that academic dishonesty is not permissible and will be penalized.**

Missed tests or homework: For a missed test or homework assignment a doctor's note indicating that you were ill that day is necessary for a make-up test to be given or for the homework grade to be recorded for credit.

Accommodation for disability: If you feel that you may need an accommodation for any sort of disability, please make an appointment to discuss your needs with me.

Combining grades for tests and homework: First, test scores are summed and converted to a percent score (i.e., total test points scored on four hour exams plus the final and are then divided by $3*15+20 = 95$, the total number of test points possible, and multiplied by 100%). Then test and labs are averaged according to the formula net percent score (tests plus labs) = $.8*\text{test percentage} + .2*\text{lab percentage}$. Next a homework score is obtained by summing all of the points you have received on homework assignments and then by adding to this sum a number of points equal to two times the number of completed assignments turned in. This point total is converted to a percentage score by dividing by the total homework points possible ($(5+2)*49=343$ points, since there are 49 homework assignments) and multiplied by 100% to arrive at a net percent score (homework). Next, a net percentage score (homework plus labs) is computed in the same way as was done for tests above. Finally, the two percentage scores (tests plus labs and homework plus labs) are combined by adding to the smaller of these two a number of percentage points equal to the difference of the two scores, provided this difference is smaller than one letter grade (this corresponds to nine percentage points, see the equivalence between numeric and letter grades below). If the difference between the two percentage scores is greater than nine percentage points, the smaller grade will still be pulled up by just nine percentage points by the higher one.

Combining grades (summary): Test and homework grades are computed separately; the higher grade can pull up the lower one by no more than one letter grade.

Study hints: When possible read the text assignments before they're covered in lecture. To prepare for tests the use of flashcards is recommended. For example cards for chapter 2 might include the following:

Card #	Front of card	Back of card
1	Definition of delta x	$x_{\text{final}} - x_{\text{initial}}$
2	Def. of average velocity	$v_{\text{ave}} = \text{delta } x / \text{delta } t$
3	v_{ave} with constant acceleration	$v_{\text{ave}} = (v_{\text{initial}} + v_{\text{final}}) / 2$
4	distance traveled in time t	$d = v_{\text{ave}} * t$

etc.

Equivalence between numerical grades and letter grades:

60-62 D-; 62-65 D; 65-67 D+; 67-69 C-; 69-72 C; 72-74 C+;
74-76 B-; 76-79 B; 79-81 B+; 81-83 A-; 83-100 A

Extra credit: No extra credit will be allowed.

Daily Assignments are listed on the following page.
 DATE SECTIONS IN TEXT* HOMEWORK DUE**

Jan

10T	1-1--1-7; Appendix A p. 1-6	--
10	2-1--2-3	--
12	2-4	1-6, 1-20, 1-32
12	2-5--2-7	2-4, 2-10, 2-12
17T	3-1--3-3	2-28, 2-40, 2-46
17	3-4--3-6	2-60, 2-64, 2-66
19	4-1--4-2	3-2, 3-16, 3-22
19	4-3--4-4	3-24, 3-30, 3-42
24T	4-5	4-2, 4-8, 4-10
24	T1 (1-1--4-4)	4-23, 4-24, 4-26
26	5-1--5-3	4-40, 4-42, 4-44
26	5-4--5-5	--
31T	5-6--5-7	5-2, 5-4, 5-12
31	6-1	5-13, 5-20, 5-22

Feb

2	6-2--6-3	5-30, 5-32, 5-38
2	6-4--6-5	5-39, 6-2, 6-4
7T	7-1--7-2	6-16, 6-18, 6-30
7	7-3--7-4	6-32, 6-44, 6-46
9	8-1--8-2	7-2, 7-4, 7-16
9	8-3	7-26, 7-36, 7-40
14T	8-4--8-5	8-2, 8-4, 8-6
14	T2 (5-1--8-3)	8-13, 8-14, 8-15
16	9-1--9-4	8-28, 8-40, 8-42
16	9-5--9-6	--
21T	9-7	9-2, 9-10, 9-16
21	10-1--10-2	9-18, 9-24, 9-25
23	10-3--10-4	9-36, 10-2, 10-6

March

7T	11-1--11-3	10-26, 10-28, 10-42
7	11-4--11-5	10-46, 10-48, 10-56
9	11-6--11-8	11-2, 11-4, 11-8
9	12-1--12-2	11-16, 11-18, 11-34
14T	12-3--12-4	11-48, 11-56, 11-68

* Notation like 1-1--1-7 means sections 1-1 through 1-7 inclusive. For our next class on Jan 12 read up through section 2-7 and also in Appendix A, p 1 through 6. Test 1, to be given during the second class hour on Tuesday Jan 24, will cover sections 1-1 through 4-4.

** For our next class on Jan 12, problems 6, 20 and 32 in chapter 1 will be due between 11:00 am and 11:10 am. Then, between 12:00 and 12:10 pm, problems 4, 10 and 12 in chapter 2 will be collected.

14	T3 (9-1--12-2)	12-4, 12-14, 12-16
16	13-1--13-3	12-24, 12-26, 12-35
16	13-4--13-5	--
21T	13-6--13-8	13-4, 13-8, 13-18
21	14-1--14-3	13-26, 13-36, 13-38
23	14-4--14-5	13-46, 13-48, 14-2
23	14-6--14-7	14-4, 14-8, 14-14
28T	14-8--14-9	14-20, 14-26, 14-34
28	15-1--15-3	14-38, 14-48, 14-50
30	15-4--15-5	14-58, 14-66, 15-4
30	15-6--15-8	15-6, 15-10, 15-14
April		
4T	16-1--16-3	15-28, 15-32, 15-42
4	16-4--16-5	15-44, 15-50, 15-54
6	16-6	16-4, 16-6, 16-8
6	T4 (13-1--16-5)	16-12, 16-22, 16-27
11T	17-1--17-2	16-38, 16-40, 16-41
11	17-3	--
13	17-4--17-6	17-2, 17-4, 17-6
13	18-1--18-3	17-18, 17-28, 17-30
18T	18-4--18-5	17-38, 17-40, 17-48
18	18-6--18-7	18-4, 18-10, 18-12
20	18-8--18-10	18-32, 18-34, 18-44
20	Review	18-46, 18-48, 18-56
27	Final*** (4-5; 8-4--8-5; 12-3--12-4; 16-6; 17-1--18-10)	

*** Our final exam will cover only the text sections indicated. Time is 11:30 am to 12:50 pm. Although it will not be collected, please review problem 18-64 for the final.