

PHYS 1212 Electricity, Magnetism, Optics and Modern Physics **Spring 2019**

Classroom: Physics Building 202 (TR 11:00 am – 12:15 pm)

Course Instructor: Prof. Yiping Zhao

Office: Riverbend Research Lab South 221 or Physics Building 209

Phone: 706-542-7792 or 706-542-2843

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Office Hour: Friday 3 – 4:30 pm, Physics Building 209

Required Textbook: Randall D. Knight “*Physics for Scientists and Engineers: A Strategic Approach*” Fourth Edition (Pearson-Addison Wesley, 2017) (Part VI, VII, and VIII)

Course Format: This course consists of two classes and one lab per week. Each class lasts 75 minutes. Before coming to class, **you should have read the assigned materials**, and worked out the assigned questions and problems (homework). In the beginning of the class, I will review the home-work problems, and then give a general lecture to review the basic concepts and materials covered in the class. During the lecture, in-class activity problems will be given. The student can either work independently, or to form a team and work together.

Homework: There are two kinds of homework assignments. One is the reading assignment, which will be the materials covered in next class. Another assignment is the normal assignment covering materials in current lecture. The homework due date is usually marked in the first page of each new lecture note. The homework solution procedure can be found at <https://www.physast.uga.edu/classes/phys1212/zhao/downloads/download/866> and the detailed formate should follow the example <https://www.physast.uga.edu/classes/phys1212/zhao/downloads/download/867>. A homework grade will be assigned to the homework assignment. Each homework assignment must be submitted no later than the start of the class on the due date. Homework grade could contribute 30% of your final class grade.

Major Exams: There will be *three major exams + the final exam* in this course (Details see class schedule). It is your responsibility to stay informed about all announcements concerning this course by attending the lecture and by regularly checking the course website.

You will be allowed to bring to each test, a writing instrument, a pocket calculator, and one original 8.5" by 11" sheet of paper containing constants, formulas, and any other information that you might find useful. Both sides of the sheet may be used. No formulas or constants will be provided on the testes. You are not allowed to use anything else during the test. No computers, PDAs (Palm Pilots, et al.), or cell phones. Use of these or other electronic devices during a test is a form of academic dishonesty.

There will be no course-wide make-up tests for students who miss one of the major exams. If you miss one, contact me immediately to find out what you should do. A grade of zero will be awarded for any major test that is missed without a valid reason. If you know that you cannot get to a test, for any reason, let me know as soon as possible. Often these problems can be handled more easily before the fact.

Grades: Your overall grade in this course will be determined by your *Average Score (AS)* which is computed as $Average\ Score = 0.85 \times class\ grade + 0.15 \times Lab\ grade$.

Your class grade could be determined by the following **three methods** as shown in the table:

Method	1	2	3
Exams and Final Exam	70%	100%	100% Final Exam Grade
Homework Grade	30%	0%	0%

The highest score calculated through the three different methods will be assigned as your final class grade. There will be **NO** class-wide grade curving in this course. The curving has already been counted into the class grade calculation through the three methods. Any other curving mechanism beyond your effort is not fair to other students in the class. It is the student's decision whether he would like to take the advantage of this curving.

The grade for major exams and final exam will be the weight average. The final exam counts for two exams. When all the grades are in, the lowest of the five will be dropped, and your test grade will be based on the best four. If the final examination is the lowest grade, it will count as one test, and it will be averaged with the other three. There is one exception to this rule, if a grade of zero is received as a result of academic dishonesty, that grade will not be dropped.

Also the lowest Homework grade will be dropped. If you miss any homework or major exam, without an excuse, that will become the lowest grade that gets dropped. If you miss again, it will not be dropped. There is one exception to this rule also, if a grade of zero is received as a result of academic dishonesty, that grade will not be dropped.

Your overall letter grade in this course will be:

A	100 – 90	C+	69.99 – 65
A-	89.99 – 85	C	64.99 – 55
B+	84.99 – 80	C-	54.99 – 50
B	79.99 – 75	D	49.99 – 30
B-	74.99 – 70	F	< 29.99

Withdraw Policy: As long as the student regularly attends the class, and hand in home-work before the withdraw deadline, if he or she wishes to withdraw from the class before the withdraw deadline, he or she will obtain a “**W**”. If the student seldom comes to the class and does not hand in homework but wishes to withdraw right before the withdraw deadline (<40% of classes and numbers if homework up to the date of withdraw requirement), he or she will obtain a “**WF**”.

Academic Integrity: The development of teamwork skills is a course objective in Physics 1211. Hence, all students are expected to actively participate in a collaborative group of students when working on the in-class activity or homework. However, each student must turn in her/his own activity or homework write-up containing only work to which she/he contributed.

Activity write-ups from groups of students will not be accepted. No student will submit an activity or homework in the name of any other student. This is considered cheating by both students involved and will be handled according to the policy for academic dishonesty stated below. Collaboration of any sort during an examination or test is prohibited and considered academic dishonesty. The first occurrence of academic dishonesty will result in a score of zero on the assignment, activity, test or exam in question, and the violator will receive a written warning. A zero received as a result of academic dishonesty will NOT be dropped from the record as the lowest grade. The second occurrence of academic dishonesty will result in an “F” for the course.

Course Materials

The following course related materials will be available in UGA eLearning Commons:

- (1) Syllabus
- (2) All class lectures (PDF files)
- (3) Homework solutions (will be posted after each homework is handed in)
- (4) Old exams and solutions

Tentative Class Schedule

(Depending on the progress, this schedule is subject to change. Please follow the class instruction)

PHYS1212 Schedule

M		T		W		Th		F		Sa		Su	
7-Jan-19	8-Jan-19	9-Jan-19	10-Jan-19	11-Jan-19	12-Jan-19	13-Jan-19	14-Jan-19	15-Jan-19	16-Jan-19	17-Jan-19	18-Jan-19	19-Jan-19	20-Jan-19
			Intro/Ch.34	1									
14-Jan-19	15-Jan-19	16-Jan-19	17-Jan-19	18-Jan-19	19-Jan-19	20-Jan-19	21-Jan-19	22-Jan-19	23-Jan-19	24-Jan-19	25-Jan-19	26-Jan-19	27-Jan-19
	2		3										
	Ch.34/35		Ch.35										
21-Jan-19	22-Jan-19	23-Jan-19	24-Jan-19	25-Jan-19	26-Jan-19	27-Jan-19	28-Jan-19	29-Jan-19	30-Jan-19	31-Jan-19	1-Feb-19	2-Feb-19	3-Feb-19
	4		5										
	Ch.33		Ch.33/RE										
28-Jan-19	29-Jan-19	30-Jan-19	31-Jan-19	1-Feb-19	2-Feb-19	3-Feb-19	4-Feb-19	5-Feb-19	6-Feb-19	7-Feb-19	8-Feb-19	9-Feb-19	10-Feb-19
	6		7										
	Ch.22		Ch.22										
4-Feb-19	5-Feb-19	6-Feb-19	7-Feb-19	8-Feb-19	9-Feb-19	10-Feb-19	11-Feb-19	12-Feb-19	13-Feb-19	14-Feb-19	15-Feb-19	16-Feb-19	17-Feb-19
	8		9										
	Exam#1		Ch.23										
11-Feb-19	12-Feb-19	13-Feb-19	14-Feb-19	15-Feb-19	16-Feb-19	17-Feb-19	18-Feb-19	19-Feb-19	20-Feb-19	21-Feb-19	22-Feb-19	23-Feb-19	24-Feb-19
	10		11										
	Ch.23		Ch.24										
18-Feb-19	19-Feb-19	20-Feb-19	21-Feb-19	22-Feb-19	23-Feb-19	24-Feb-19	25-Feb-19	26-Feb-19	27-Feb-19	28-Feb-19	29-Feb-19	30-Feb-19	31-Feb-19
	12		13										
	Ch.24		Ch.25										
25-Feb-19	26-Feb-19	27-Feb-19	28-Feb-19	1-Mar-19	2-Mar-19	3-Mar-19	4-Mar-19	5-Mar-19	6-Mar-19	7-Mar-19	8-Mar-19	9-Mar-19	10-Mar-19
	14		15										
	Ch.25		Ch.26										

M		T		W		Th		F		Sa		Su	
4-Mar-19	5-Mar-19	6-Mar-19	7-Mar-19	8-Mar-19	9-Mar-19	10-Mar-19	11-Mar-19	12-Mar-19	13-Mar-19	14-Mar-19	15-Mar-19	16-Mar-19	17-Mar-19
	16		17										
	Ch. 26/RE		Ch. 27										
11-Mar-19	12-Mar-19	13-Mar-19	14-Mar-19	15-Mar-19	16-Mar-19	17-Mar-19	18-Mar-19	19-Mar-19	20-Mar-19	21-Mar-19	22-Mar-19	23-Mar-19	24-Mar-19
	SB		SB										
18-Mar-19	19-Mar-19	20-Mar-19	21-Mar-19	22-Mar-19	23-Mar-19	24-Mar-19	25-Mar-19	26-Mar-19	27-Mar-19	28-Mar-19	29-Mar-19	30-Mar-19	31-Mar-19
	18		19 / WD										
	Exam#2		Ch. 27										
25-Mar-19	26-Mar-19	27-Mar-19	28-Mar-19	29-Mar-19	30-Mar-19	31-Mar-19	1-Apr-19	2-Apr-19	3-Apr-19	4-Apr-19	5-Apr-19	6-Apr-19	7-Apr-19
	20		21										
	Ch. 28		Ch. 28										
1-Apr-19	2-Apr-19	3-Apr-19	4-Apr-19	5-Apr-19	6-Apr-19	7-Apr-19	8-Apr-19	9-Apr-19	10-Apr-19	11-Apr-19	12-Apr-19	13-Apr-19	14-Apr-19
	22		23										
	Ch. 29		Ch. 29										
8-Apr-19	9-Apr-19	10-Apr-19	11-Apr-19	12-Apr-19	13-Apr-19	14-Apr-19	15-Apr-19	16-Apr-19	17-Apr-19	18-Apr-19	19-Apr-19	20-Apr-19	21-Apr-19
	24		25										
	Ch. 30		Ch. 30										
15-Apr-19	16-Apr-19	17-Apr-19	18-Apr-19	19-Apr-19	20-Apr-19	21-Apr-19	22-Apr-19	23-Apr-19	24-Apr-19	25-Apr-19	26-Apr-19	27-Apr-19	28-Apr-19
	26		27										
	Ch. 31		Ch. 31										
22-Apr-19	23-Apr-19	24-Apr-19	25-Apr-19	26-Apr-19	27-Apr-19	28-Apr-19	29-Apr-19	30-Apr-19	1-May-19	2-May-19	3-May-19	4-May-19	5-May-19
	28		29										
	Ch. 32		RE										

WD = Withdraw deadline
 SB = Spring break
 RE = Review

Date
Lecture
Content

Direction to my Riverbend Office

Any valid UGA parking permit is OK for the E13 lot.

City Bus #12, Riverbend Stop

