

# Engineering Physics II Spr 2012

## Syn 47322 PHY 2426 sect 003

Lecture	Mon/ Wed,	7:05 pm - 8:20 pm	Room 326
Lab	Mon/ Wed,	8:30 pm - 9:45 pm	Room 326
Office	Mon/ Wed, email:	6:00 pm - 7:00 pm gink@austin.rr.com	Room 325.1 phone 223- 3303

week	chapter (section)	event	lab
Jan 18	21		the oscilloscope
Jan 23, 25	22		charged straws
Jan 30, Feb 1	23		field lines
Feb 6, 8	24		capacitance
Feb 13, 15	25		more capacitance
Feb 20, 22	<i>review</i>	<i>test</i> ○	resistance
Feb 27, 29	26		currents
Mar 5, 7	27		circuits
Mar 12, 14	28		magnetic field
Mar 19, 21	<i>- spring break -</i>		
Mar 26, 28	29		magnetic field
Apr 2, 4	30		inductance, e, capacitance
Apr 9, 11	<i>review</i>	<i>test</i> ○	ac circuits
Apr 16, 18	31		refraction, reflection
Apr 23, 25	32		Brewster's angle, image
Apr 30, May 2	33		diffraction
May 7, 9	<i>review</i>	<i>final</i> ○	<i>labs.due.May.9</i>

It is very important that you are registered for class at this time. This will be checked, and you risk losing time and money if matters are not as they should be. See me immediately if there is any doubt.

Attendance is very important, and will be recorded for both class and labs. Being present for tests is mandatory. Test make-ups should be cleared **before** missing a test. Lab make-ups will be available on Fridays.

### Tests

○ Feb. 22	Chapters 21, 22, 23, 24, 25	(100 pts)
○ Apr. 11	Chapters 26, 27, 28, 29, 30	(100 pts)
○ May. 9	Chapters 31, 32, 33 * <b>this test is cumulative</b>	(150 pts)

Ch Homework		Ch Homework	
21	6, 21, 42	28	10a, 13, 36
22	18, 24, 57	29	4, 29, 51, 78
23	31, 41, 45	30	13, 32, 45, 67
24	73, 84, 93	31	10, 28, 29, 37, 45
25	14, 30, 45	32	19, 31, 46
26	8, 43, 63	33	8, 24, 34, 58
27	5, 10, 19, 58		

Your grade consists of a lab book, homework and the three test grades. The first two tests will each count 100 points, and the final is 150 points; the lab is 150 points and homework is 100 points. Your points earned will be divided by 600 (the maximum number of points possible) to give a numerical grade.

You need to be present for tests. Make-ups should be cleared before missing a test. The first two tests are worth 100 points each. Your last test is cumulative and is worth 150 points.

Each lab analysis and writeup is submitted within two weeks after being assigned. The total lab notebook value is of 150 points. If you miss a lab you can make it on on Fridays. Don't put off writing things up until too late!

Homework is handed in two weeks after it is assigned. The total homework notebook is worth 100 points. When turning in homework don't run different chapters together, keep them separate.

If you are having trouble understanding homework, labs or anything else, come to see me. That is why I am here. Remember, in doing homework, labs and tests, it's important to explain as much as you can about what you are doing.

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My email address is <gink@austin.rr.com> You can often reach me at 478-8125. Office hours are one hour before class on Monday and Wednesday. Check online for class syllabi, homework assignments, and other information.

ENGINEERING PHYSICS II    PHYSICS 2426    section 003  
SYNONYM: 47322    4 credits    instructor: David Potter    Spring 2012

COURSE DESCRIPTION: Calculus-based study of electricity and magnetism, geometric and physical optics, and modern Physics.  
This is the second half to the calculus-based PHYS 2425/2426 sequence.

PREREQUISITES :    1. PHYS 2425 or equivalent  
                          2. Credit in MATH 2414 or its equivalent  
TEXT :            *Halliday, Resnick, Walker, Fundamentals of Physics, 9th edition*  
OTHER :           Scientific calculator  
METHODOLOGY :    Lecture/Lab

LECTURE: Mon/ Wed, 7:05 pm - 8:20 pm in RGC 326  
LAB:        Mon/ Wed, 8:30 pm - 9:45 pm in RGC 326

OFFICE LOCATION:    RGC 325.1  
PHONE NUMBER:        223- 3303  
E-MAIL ADDRESS:      gink@austin.rr.com  
OFFICE HOURS:        Mon/Wed, from 6:00 pm - 7:00 pm  
APPOINTMENT HOURS: call or e-mail

This is a university calculus level physics course intended for majors in engineering, physics, chemistry, mathematics, computer science and other technical and scientific majors.

**OBJECTIVES:**

In the lecture, to get a slightly deeper acquaintance with some important ideas of physics, and to get some practice thinking as a physicist does.

In the lab, to see some physical ideas made real, and to get some exposure to laboratory equipment, as well as to get some exposure to technical writing and using graphs and charts.

GRADING SYSTEM: points earned are divided by 600 to get a class grade

Tests:	200 points	
Final Exam:	150 points	In most classes, 89 up is an "A", 80-88 is a "B", 65-79 is a "C"
Laboratories:	150 points	Small variations from this will be fitted to individual classes.
Homework:	100 points	

**COURSE POLICIES:**

You are encouraged to attend. Too many absences can get you dropped. Withdrawals are generally up to student.

For incompletes, see incomplete rule in college catalog (This section in the catalog is 3 paragraphs long).

Scholastic Dishonesty: Acts prohibited by the college for which discipline may be administered include scholastic dishonesty, including but not limited to cheating on an exam or quiz, plagiarizing, and unauthorized collaboration with another in preparing outside work. Academic work submitted by students shall be the result of their thought, research or self-expression. Academic work is defined as, but not limited to tests, quizzes, whether taken electronically or on paper; projects, either individual or group; classroom presentations, and homework.

Academic Freedom: Students are free to disagree with instructors on matters of opinion or personal philosophy, and will incur no penalty from doing so. However, instructors will judge student work based upon its relation to the current state of mainstream scientific fact and theory. Students are allowed to voice opinions, concerns, complaints and suggestions to the instructor. However, it is up to the instructor to decide how to use the student's comments to meet the class's best interests.

Student Discipline: Matters of student discipline will be adjudicated by the instructor on a case-by-case basis, in conjunction with the Task Force Leader or Dean. Students may consult with the Office of Student Services or the Associate Dean at their campus on these matters.

Office with Student with Disabilities: Each ACC campus offers support services for students with documented physical or psychological disabilities. Students with disabilities must request reasonable accommodations through the Office for Students with Disabilities on the campus where they expect to take the majority of their classes. Students are encouraged to do this three weeks before the start of the semester.

COURSE OUTLINE/CALENDAR on separate page

TESTING CENTER POLICY: Physics tests may not be given in the testing center except for make up tests.

STUDENT SERVICES HANDOUT and INSTRUCTIONAL SERVICES HANDOUT: to be handed out to student by each instructor if student already does not have copy