

PHY 102: “Elementary College Physics” --- Spring, 2012

Course Information:

Instructor: Dr. L. Gan
Office: DL Rm. #202A
Tel: 962-3583
E-mail: ganl@uncw.edu

Classes meet: Tue at 5:00pm-6:15pm
Thur at 5:00pm-6:15pm

DL Rm. # 114

Office hours: Wed 11:30am-12:30pm and 2:00pm-6:00pm

Other hours by appointment only

Course web site: <http://people.uncw.edu/ganl/phy102/index.htm>

(Important!!!) You are required to check this web site every week for syllabus, announcement and homework assignment)

Required Text:

“Physics”, by J. D. Cutnell and K. W. Johnson, the 8rd edition
(John Wiley & Sons, Inc.)

Course Description:

This is the second semester of a two semester algebra based introduction to the fundamental principles of physics. Topics include electric and magnetic fields, circuits, electromagnetic waves, and geometric and physical optics.

Supplementary Readings:

- **Go to Wiley** student companion site: <http://bcs.wiley.com/he-bcs/Books?action=index&itemId=0470223553&bcsId=4768> . You will have access to self assessment tests, concept simulations, MCAT quizzes and selected solutions.
- “College Physics”, by R. A. Serway, J. S. Faughn, C. Vuille and C. A. Bennett.
- “University Physics”, by H. D. Young and R. A. Freedman

Important!!!

Read ahead of the lecture and solve the weekly homework problems assigned. Weekly reading assignment is given below in the course outline. Even if you only read the assigned sections for about 30 minutes before each class, you will be

much better prepared. Look through each chapter before we begin them. **Up to 10 bonus points** will be given to the students who are actively involved in the class room discussion and answer the questions correctly. The course will move at a fast but steady pace and it is your responsibility to keep up with the lectures.

Homework:

Approximately 5-7 problems will be assigned every week on Thursday. Homework will be not graded and so you do not have to hand them in. It is absolutely essential that you work out the assigned problems.

Labs:

Satisfactory lab performance is a required as a part of this course. For each uncompleted lab, your final grade will be dropped by **half a letter grade**. There will be an opportunity to make up **one** lab at the end of the semester.

Quizzes:

There will be about five 10 minute quizzes (that is about one every three weeks). Quizzes will consist of a mixture of multiple choice, definition or conceptual questions, plus selected problems similar to the homework problems. **All quizzes will be closed book.**

Examinations:

There will be two midterm exams during the semester and a three-hour comprehensive final exam. The exams will consist of a mixture of multiple choice, conceptual questions, and selected problems. **All exams will be closed book.** The tentative dates of these exams are given below in the course outline. Do not miss any of these exams.

Make-up:

There will be no make-up quizzes and exams. In case of evidence of extraordinary circumstance, each case will be discussed and evaluated on an individual basis. No general policy will apply to the class as a whole.

Grading:

Quizzes:	15%
Two midterm exams:	40%
Final examination:	45%
Bonus points for class room discussions:	10%

Grading scale:

90 -100	.....	A
80 - 89	.....	B
70 - 79	.....	C
60 - 69	.....	D
Below 60	.....	F

Attendance:

YOU ARE EXPECTED TO ATTEND ALL OF THE LECTURES! Your final grade will be dropped by **half a letter grade** if you have more than five absences. No absences can be excused. Attendance will be taken at the beginning of each class and will be closed 10 minutes after the class starts. Please do not be late!

Study Sessions for PHY102:

DL 213 on Mondays and Thursdays at 7pm-8:30pm

Academic Integrity:

All members of UNCW's community are expected to follow the academic Honor Code. Please read the UNCW Honor Code carefully (as covered in the UNCW Student Handbook). Academic dishonesty in **any** form will not be tolerated in this class.

Disability Services:

Students with diagnosed disabilities should contact the Office of Disability Services (962-7555). Please give me a copy of the letter you receive from Office of Disability Services detailing class accommodations you may need. If you require accommodation for test-taking please make sure I have the referral letter no less than three days before the test.

Violence and Harassment:

UNCW practices a zero tolerance policy for any kind of violent or harassing behavior. If you are experiencing an emergency of this type contact the police at 911 or UNCW CARE at 962-2273. Resources for individuals concerned with a violent or harassing situation can be located at <http://www.uncw.edu/wsrc/crisis.html>.

University Learning Center:

910.962.7857

www.uncw.edu/ulc

The University Learning Center's (ULC) mission is to help students become successful, independent learners. Tutoring at the ULC is NOT remediation: the ULC offers a different type of learning opportunity for those students who want to increase the quality of their education. ULC services are free to all UNCW students and include the following:

- Learning Services (Basic Studies) <http://www.uncw.edu/ulc/learning/index.html>
- Math Services <http://www.uncw.edu/ulc/math/index.html>
- Study Skills <http://www.uncw.edu/ulc/study/index.html>
- Supplemental Instruction <http://www.uncw.edu/ulc/si/index.html>
- Writing Services <http://www.uncw.edu/ulc/writing/index.html>

Phys 102: “Elementary College Physics” – Course Outline:

Date	Topic	Text Reference
Week 1 (Jan. 12)	Introduction Electric Forces	Chapter 18
Week 2 (Jan 17)	Electric Forces and Electric Field	Chapter 18
Week 3 (Jan 24)	Electric Potential Energy and the Electric Potential	Chapter 19
Week 4 (Jan 31)	Electric Circuits	Chapter 20
Week 5 (Feb. 7)	Electric Circuits	Chapter 20
Week 6 (Feb. 14)	Exam 1	Chapter 18-20
Week 7 (Feb 21)	Magnetic Forces and Magnetic Fields	Chapter 21
Week 8 (Feb 28)	Electromagnetic Induction	Chapter 22
Week 9 (Mar 6)	Alternating Current Circuits	Chapter 23
Week 10 (Mar 13)	Spring break	
Week 11 (Mar 20)	Electromagnetic Waves	Chapter 24
Week 12 (March 27)	Exam 2	Chapter 21-24
Week 13 (April 3)	The Reflection of Light	Chapter 25
Week 14 (April 10)	The Refraction of Light	Chapter 26
Week 15 (April 17)	Interference and Wave Nature of Light	Chapter 27
	Nature of the Atom	Chapter 30
Week 15 (April 24)	Nuclear Physics	Chapter 31
May 3	Final exam (7:00-10:00)	All chapters

This schedule is subject to change.