

PHY 101: “Elementary College Physics” --- Fall, 2012

Course Information:

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

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

DL Rm. # 212

Office hours: 2:00pm-4:00pm on Tue & Thur

Other hours by appointment only

Course web site: <http://people.uncw.edu/ganl/phy101/index.htm>

Homework web site: www.masteringphysics.com
(You must register for course ID: MPGAN16014)

(Important!!! You are required to check homework web site every week for 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 first semester of a two semester algebra based introduction to the fundamental principles of physics. Topics include kinematics, Newtonian statics and dynamics, gravitation, oscillations, and mechanical waves.

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 8 problems will be assigned every week on Thursday at www.masteringphysics.com. You must submit the homework before the due date. You are still allowed to access the homework problem after the due date; however, no credit will be given to any late homework.

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 tests during the semester and a three-hour comprehensive final exam. All 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:

Homework:	15%
Quizzes:	10%
Two midterm tests:	35%
Final exam:	40%
Bonus points for class room discussions:	10%

Grading scale:

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

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 101: “Elementary College Physics” – Course Outline:

Date	Topic	Text Reference
Week 1 (Aug. 23)	Basics Units, problem solving	Chapter 1
Week 2 (Aug. 28)	Trigonometry, Scalars and vectors.	Chapter 1
	Kinematics Displacement, velocity, acceleration	Chapter 2
Week 3 (Sept. 4)	free fall	Chapter 2
	Kinematics in two dimensions	Chapter 3
Week 4 (Sept. 11)	<i>Linear Dynamics:</i> Newton's Laws of Motion, forces, gravitation, friction, application of Newton’s law	Chapter 4
Week 5 (Sept. 18)	Dynamics of uniform circular motion	Chapter 5
	Work and energy	Chapter 6
Week 6 (Sept. 25)	Conservation laws	Chapter 6
	Impulse and momentum	Chapter 7
Week 7 (Oct. 2)	Exam 1	Chapter 1-7
Week 8 (Oct 11)	Rotational Kinematics	Chapter 8
Week 9 (Oct 16)	Rotational dynamics	Chapter 9
Week 10 (Oct 23)	Simple harmonics motion and elasticity	Chapter 10
Week 11 (Oct 30)	Fluids	Chapter 11
Week 12 (Nov 6)	Exam 2	Chapter 8-11
Week 13 (Nov 13)	The transfer of heat	Chapter 13
Week 14 (Nov 20)	Ideal Gas Law	Chapter 14
Week 15 (Nov 27)	Wave and sound	Chapter 16
Week 16 (Dec 4)	Linear superposition and interference	Chapter 17
Dec 11 (7:00-10:00 pm)	Final exam	All chapters

This schedule is subject to change.