

College Physics/ Phy 2048c/Ref #10538
Course Description
Fall 2016

I Introduction

Welcome to the world of Physics! Physics is a fascinating study of the behavior of matter from the very large (galaxies, planets, etc...) to the very small (neutrons, protons, electrons subatomic particles), from real world mechanics to the half-imaginary quantum realm. Also, with recent exciting discoveries in semiconductors, high temperature superconductivity, chaos, and astrophysics, it is a very interesting place to be.

Your instructor for this course will be:

Mr. Anthony S. Russo

Office: S-211 Tel: 729-5242 (w)
 974-8544 (c)

Email: russoa@nwfsc.edu

In this course we will be using the following texts:

Giancoli: Physics For Scientists and Engineers: (4th ed.)
Pearson/Addison-Wesley

The Laboratory manual is:

K. Appel, et. al., "Physics with Computers" (Modified)

Prior to this course, you probably have been exposed to some science and math. You are expected to have some sort of working knowledge of both. In this course, we will build on your knowledge and develop and understanding of the basic concepts of physics.

As an example, we will study what force binds the planets in their orbits, or the electrostatic force between two charged objects placed a certain distance apart. These are examples of the concepts we will study. These concepts involve physical laws, which make up the study of physics.

The 2048/2049 sequence requires that you have had some calculus and is intended for engineers, computer programmers and so forth. The 1053/1054 sequence does not require calculus and is intended for such people as technicians, nurses, pharmacists, doctors and other members of the medical profession and so forth. The principles are the same; however the difference is in the difficulty of the problems solved.

Please do not let the mathematics scare you. If you are extremely deficient in mathematics, see the instructor. He may be able to work around this. Much of physics can be explained without the use of extremely difficult math.

I. **Course Schedule**

Attached you will find a copy of the test schedule. Notice that no dates have been given. The dates of tests will be announced well in advance. Pretest Bonus assignments will be done on the session just before the review date.

II. **Grading Procedure**

Your final grade will be an A, B, C, D, or F, as the college requires. This grade will be determined by your performance on tests, labs, and the final exam. The weighting factor is as follows:

- 40% the average of 4 or 5 tests including in-class bonuses
- 40% the class activities, and Pre-lecture and Pre-test bonuses
- 20% the final exam

There will be no midterm exam in this course. The date and time of the final exam is shown below.

Each of the above will be graded on a scale from 0 to 100. The final grade will be determined using the scale

A	90 – 100
B	80 – 90
C	65 – 80
D	50 – 65
F	less than 50

Students with Special Needs

If you have special needs for which accommodations may be appropriate to assist you in this class, please contact the Office of Services for Students with Special Needs in SST building on the Niceville Campus, or call 729-6079 (TDD 1-800-955-8771 or Voice 1-800-955-8770).

III. **PRETEST BONUS/ACTIVITY SCORE**

Your Pretest bonus/Activity Score is based on the number of activities that you participate in, and the number of Pre-lecture and Pretest bonuses you complete.

1. **In-Class Activities**

In addition, we will be doing in-class activities for which your participation will be required. This is feed-back time. During these activities, I may ask you to write a short paragraph, or answer a question

on a subject and turn it in that day. I will check it off for participation only. If you miss an activity, you will not be allowed to make it up. I will however, allow you to miss one or two of these without hurting your final grade.

You will be required to turn in a report for each activity/lab session. This need not be an involved report; usually this will be a single graph or series of graphs, with resulting calculations. You may come into the lab, take the data, do calculations as required, then answer the questions, and turn it in. In certain cases, I may allow you to take the data home and email it back.

Each time, before starting, the procedure and requirements will clearly be explained to you. Feel free to ask questions. You will be required to do your own setting up. If so, have the instructor check your set up before beginning to take data.

Instructions for Turning an Activity Report

1. Turn in one activity report per group with all names.
2. Cut and paste all graphs, tables, calculations, etc, in a WORD document
3. Answer all of the analysis questions in the WORD document.
4. Email me the WORD document no later than 1 week after the activity was done. Use the following format: (Activity #, Experiment #, the date the activity was done in class). Do not use the date you turned it in.
5. In the email, put the word "ACTIVITY" in the subject line.

2. Pretest Bonus Assignments

In class during the semester, I will give a bonus test consisting of three or four multiple choice questions taken from the reading material. Your objective is to answer these questions correctly. The number of bonus questions you answer correctly, will be added directly to your test score. You can prepare for these by reading the book prior to taking the test. Your participation on these will count as part of your Pretest Bonus/Activity Grade (40%).

IV. Attendance Policy

The policy of the college is that you must attend all lecture and lab sessions. Please consult the college catalogue for attendance and tardy policies. In support of this policy, the roll will be taken before each session. If in the case of an emergency, you cannot attend, call the instructor to make up the material covered. If you miss a test, you must make it up within two (2) working days with permission from the instructor. If you need more than 2 days, see the instructor before taking the exam. **THIS POLICY WILL BE STRICTLY ADHERED TO. The only excuses that will be acceptable are:**

- a. If you are sick
- b. If your car breaks down, or if you have an accident on the way to class.
- c. A family emergency
- d. If you are on TDY with the military
- e. If you are on jury duty, or have been subpoenaed
- f. If you are the victim of an act of violence.

The same policy holds for activity sessions, only you will not be allowed to make up an activity. You will be allowed to miss at most only 2 or 3 activities without it hurting your final grade, if these absences are excused for any of the reasons mentioned above. I also, may do a surprise bonus activity in class, for which your participation may count as bonus points on the subsequent test.

Student Rights, Responsibilities, and Academic Integrity

Students are responsible for adherence to all college policies and procedures, including those related to academic freedom, cheating, classroom conduct, computer/network/e-mail use, and other items included in the *2016-17 NWFSC Catalog and Student Handbook*. Academic dishonesty is a serious breach of student responsibility and may trigger consequences ranging from a failing grade to formal disciplinary action.

Cell Phone/Electronic Communication Devices Usage

Cell phones, pagers and other such electronic devices must be turned off during class and activity time. This includes instant messaging, text messaging, and telephone. If you need such devices, please contact me.

Students may use the internet on laboratory computers but only for class sanctioned activities. **PLEASE DO NOT DO HOMEWORK DURING LECTURE.**

V. Materials Required

The materials required for the lecture and lab are basically those that a well-prepared student would like to bring. These are:

Lecture: pens or pencils, calculator, paper, textbook and notebook

Activities: pencils, paper, graph paper, calculator, lab manual, ruler, protractor, and compass.

Homework: access to a computer with an internet connection.

The instructor will provide special equipment as needed.

VI. Homework

Homework will be assigned but is optional. It is strongly urged that the student do the suggested homework problems. These suggested problems will come from the textbook, and will serve as inspiration to the kind of problems that will be on the tests. You can only do these problems yourself or with another student and you do not have to turn them in to me.

As always, if you have any questions please ask.

So let's have a semester of fun, and enjoy physics together.

VI. Test Schedule

<u>Tests</u>	<u>Chapters Covered</u>
1	1 - 3
2	4 - 6
3	7 - 9
4	10 -12

The date of the final exam is Friday, Dec. 9, 2016 from 12:00 n to 1:50 pm in room S-231.

The final exam will be comprehensive, and will include parts of chapters 14, and 15.

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