

October 30, 2017

Syllabus

NVCC Alexandria

Phy 130

Physics and Lab

A Survey of Applied Physics

Tu, Th 1:30 PM-3:20 PM Rm 346 Lecture

Tu, Th 3:30 PM-5:30 PM Rm 385 Laboratory

Spring 2018

Instructor: Prof. John Pavco

e-mail: jpavco@nvcc.edu

Students should read all required chapter(s) before class. Print out lab instructions before class and bring them with you to lab. If you fail to do so, there will be a grade penalty. The course outline is given in the following web site. It will be followed throughout the course.

<https://blogs.nvcc.edu/tstantcheval/courses/phy130/physics-130-course-outline/>

For the weeks of:

* Jan 11 – Thursday

“Lecture 1” *Introduction

* Syllabus Review

* Math Review/Measurement

“Lab 1” * Lab Safety

* Jan 15 – Monday Martin Luther King Jr. Holiday

* Jan 16 –Tuesday

“Lecture 2” *Motion

“Lab 2” * Measurement

* Jan 18 – Thursday

“Lecture 3” *Forces

“Lab”

“Test 1” * Measurement/ Motion

Practice 1 with answers

Last day to drop with a tuition refund

* Jan 23 –Tuesday

“Lecture 4” *Momentum

“Lab 3” * Elastic Collisions

* Jan 25 – Thursday

“Lecture” Practice 2 with answers

“Test 2” * Force and Momentum

“Lab 4” * Inelastic Collisions

* Jan 30 –Tuesday

“Lecture 5” * Energy

“Lab 5” * Torque

*Feb 1– Thursday

“Lecture 6” * Rotation

“Lab”

“Test 3” * Momentum/Energy

* Practice 3 with answers

* Feb 6–Tuesday

“Lecture 7” * Gears and levers

“Lab 6” * Springs

*Feb 8– Thursday

“Lecture” * Practice 4 with answers

“Test 4” * Rotation, springs, Gears and levers

“Lab 7” * Density

* Feb 13–Tuesday

“Lecture 8” * Fluids

“Lab ” “Test 5” * Density

Last day withdraw without a grade penalty

*Feb 15– Thursday

“Lecture” “Test” Fluids

* Practice 5 with answers

“Lab 8” * Buoyancy

* Feb 20–Tuesday

“Lecture 9” * Electricity

*Magnetism

“Lab 9” * Ohm’s Law

*Feb 22– Thursday

“Lecture 10” * Heat and temperature

“Test 5” * Buoyancy, Electricity, Magnetism

“Lab 10” * Boyle’s Law

* Feb 27–Tuesday

“Lecture 11” * Optics

* Practice 6 with answers

“Lab 11” * Lenses

*March 1– Thursday

“Lecture 12” * Matter

“Lab” * Practice 7 with answers

“Test 6” * Boyle’s Law, Optics, Lenses

*March 6–Tuesday

“Test 7” Final

The schedule of classes is subject to changes.

Grading:

Lab work/Projects	20%
6 Mid-terms	8.3 % each
Recitation	10%
Final	20% comprehensive

Each exam will cover topics in specific chapters and labs. However, a working knowledge of all material covered to date will be expected.

Tests will be submitted on Scantron cards (11" x 4.5").

Cheating on exams, tests, or labs will not be tolerated. This includes changing entries on Scantron cards after the exams have been covered in class. The first violation will receive a zero for the work that was submitted. The second violation will result in an F for the class.

No food or drinks in the classroom except bottled water.

I will not search for answers or give credit for sloppy, unsystematic work!

Lab rules:

- 1) Print and read the lab materials before coming to class - This means read it and understand it. If you are unprepared, you will not be granted additional time and will be docked points.
- 2) Do not begin any lab without my approval.
- 3) **You must wear closed toe shoes and long pants.** If you fail to do so, you will be required to leave.
- 4) No food or drinks in the lab except bottled water.
- 5) Do not be late. If you arrive after the experiment has begun, **you will not** be permitted to join your group. It is everyone's responsibility to help set up, interpret, conduct and solve the problem at hand from start to finish. No one is permitted to get data they didn't work for.
- 6) Clean up! You must return the equipment in good condition and return it neatly. Pick up your lab bench and shut down the computer. You will be docked points if your group fails to do so.
- 7) Do not reconfigure any computer in anyway. This is considered vandalism and will be dealt with accordingly.
- 8) Question form labs are due that class period.

If you are in need of special assistance, **you must have an Accommodation Memorandum form** from guidance. If you do not have one and feel you need extended test time, an interpreter or reader, go to counseling and request one. If you have an Accommodation Memorandum, please show it to me ASAP. If you don't show it to me **in a timely manner**, I am not obligated to provide you with any additional test time or allow you any assistance.

Unexpected Closings: In the event of unexpected Closings, students are expected to work on the course at home. Class notes and class assignments will be posted on Blackboard.

Office Hours:

I will be available in Bisdorf 352 from 11:00 AM TO 12:00 PM on Thursdays. I will also be available by appointment.

This is taken from the NOVA Student Handbook:
<http://www.nvcc.edu/students/handbook/conduct.htm>

Attendance/Student Participation -

Education is a cooperative endeavor between the student and the instructor. Instructors plan a variety of learning activities to help their students master the course content. Your contribution is to participate in these activities within the framework established in the class syllabus. Faculty will identify specific class attendance policies and other requirements of the class in the class syllabus that is distributed at the beginning of each term. Successful learning requires good communication between students and instructors; therefore, in most cases, regular classroom attendance, or regular participation in the case of a non-traditional course format, is essential. It is your responsibility to inform your instructor prior to an absence from class if this is requested by the instructor in the class syllabus. You are responsible for making up all course work missed during an absence. In the event of unexplained absences, especially if you miss the first three weeks of class, your instructor may withdraw you administratively from the course.

It must be clear that the rules in class (disability, cheating, grading, etc.) will not change.