

Hello Everyone!

Welcome to spring quarter and to the General Introductory Physics class (PHYS 2C, CRN:41944, section:01Z, MTWR 1:30 PM to 2:20 PM) and LAB (T 2:30 PM to 5:20 PM).

The prerequisite course for our class is PHYS 2B

I would cover most part of the following chapters 11, 12, 13, 14, 15, 25, 27, 28 and 29 of a college level Physics book. The free online version is here: <https://openstax.org/details/college-physics>

The course outline is here:

<https://www.deanza.edu/catalog/courses/outline.html?cid=PHYS2C>

The main topics in the course outline are here:

- A.** Analyze the properties of fluids.
- B.** Investigate the field of optics.
- C.** Explore thermal physics.
- D.** Assess special relativity.
- E.** Appraise quantum theory.
- F.** Analyze data in the laboratory using graphical, statistical, and computer based techniques.

I am a condensed matter experimental physicist, and I would like to use hands-on experiments and team work to facilitate learning. I hope it will be a fun physics class and lab for you.

The main topics that we work in the virtual lab that mentioned in the course outline are here:

- A.** Density, the buoyant force, and Archimede's Principle.
- B.** Geometric Optics
- C.** Wave Optics (single slit diffraction)
- D.** Wave Optics (double slit interference)
- E.** Microwave Optics (single slit)
- F.** Microwave Optics with Bragg diffraction
- G.** Atomic spectra
- H.** The E/M experiment.

Physics simulation link:

[PhET: Free online physics, chemistry, biology, earth science and math simulations \(colorado.edu\) \(Links to an external site.\)](#)

Email me (Shirin Jamali) for any question or set up an appointment for meeting (jamalishirin@fhda.edu)

Office hours: Monday and Thursday from 2:30 to 3:00pm

Academic integrity:

https://www.deanza.edu/policies/academic_integrity.html (Links to an external site.) (Links to an external site.)

Class Structure:

Design and perform experiments to find out the rules that governs the experiment.

You will design and perform your own experiments using guidance from books. Discussion with your peers and me will make this task easy and fun.

Your notes may contain videos, pictures, text, and voices to explain the experiment.

You may use other materials with reference in your note to explain the concepts of the rules you are referring in your experiment.

It would be the best to write your questions as it arises in your notes.

Your notes contain few problems that are related to the concept and your experiment with your answers. You will present your work at the end of each chapter.

At the end of this class, you will have a book with your name that contains all your notes.

Assignments/ Exam for each topic:

- 1- Class participation- Activity
- 2- Note taking of main concepts
- 3- Problem solving
- 4- Presentation (oral exam)
- 5- Lab report

All the assignments are in discussion sections, and you will discuss all parts with your classmates

Important dates:

Final Exam Time

Tuesday from 1:45 PM to 3:45 PM

<https://www.deanza.edu/calendar/final-exams.html>

Grading:

Assignment/Exam parts for each topic plus final exam question and the lab section for each topic would be the percentage grade for your final grade.

A+: for extraordinary achievement A: 93% - 100% A-: 90-92%

B+: 88-89% B: 83-87% B-: 80-82%

C+: 78-79% C: 73-77% C-: 70-72%

D: 60-69% F: < 60%

Last Day to Add the class 04/16/ 2022

[How to drop the class](#)

Last Day to Drop w/o W 04/17/ 2022

Last Day to Drops with W 05/27/2022

[Calendar \(Dates and Deadlines by Quarter\)](#)

[How to Reach Services This Spring](#)

[Guide to Spring Quarter](#)

[Discover Your Village!](#)

Student Learning Outcome(s):

*Critically examine new, previously un-encountered problems, analyzing and evaluating their constituent parts, to construct and explain a logical solution utilizing, and based upon, the fundamental laws of optics, thermodynamics, fluids, and modern physics.

*In order to test lab skills students are expected to gain confidence in taking precise and accurate scientific measurements, with their uncertainties, and then with calculations from them, analyze their meaning as relative, in an experimental context, to the verification and support of physics theories.