

# DE ANZA COLEGE – PHYSICS 4B LAB – FALL 2024

## SYLLABUS

### Administrative

<b>Instructor</b>	Mehmet Artun
<b>Email</b>	artunmehmet@fhda.edu
<b>Homepage</b>	<a href="https://www.deanza.edu/faculty/artunmehmet/">https://www.deanza.edu/faculty/artunmehmet/</a>
<b>Office</b>	S31
<b>Lab Hours</b>	W 7:55 → 10:45 PM (Room S17 - Sec 48)
<b>Final Exam Date</b>	4 December 2024 (Last lab meet is the lab exam)
<b>Text</b>	Physics for Scientists and Engineers (Vol. 1), 9th Edition, By Serway/Jewett
<b>Required</b>	Casio FX-300MS, TI – 30XIIS, TI-30Xa, or equivalent
<b>Prerequisites</b>	Physics 4A or the equivalent

### Objectives

**Practical Application:** Gain firsthand experience with electrical and magnetic phenomena through hands-on experimentation.

**Theoretical Reinforcement:** Strengthen understanding of electrical and magnetic concepts by applying them in laboratory settings.

**Measurement Mastery:** Develop proficiency in making accurate measurements and evaluating experimental uncertainties.

**Data Analysis:** Learn to analyse data effectively using graphical, statistical, and computational methods.

**Scientific Communication:** Master writing clear and comprehensive scientific lab reports.

**Collaborative Learning:** Work effectively with lab partners to achieve experimental goals and foster teamwork skills.

### Class Attendance:

Prompt attendance is mandatory. You are expected to be present at the start of every class for the remainder of the quarter. Missing two or more labs will result in automatic withdrawal from both the lab and lecture components. If you choose to discontinue attendance, it is your responsibility to officially withdraw from the course to avoid a failing grade. Roll call will be taken at the beginning of each class. Absences will be recorded if you are not present when

your name is called. Please note that students can only attend the lab session they are officially assigned to.

## Lab Preparation

All lab experiments are available online at the class homepage <https://www.deanza.edu/faculty/artunmehmet/>. There, you'll also find the lab schedule for the quarter. To maximise your lab experience, download and read the upcoming week's experiment before your lab session. This will prepare you to participate fully and complete the lab more efficiently.

## Lab Reports

- Prepare your lab reports online using Microsoft Word or Google Docs
- Upload your lab report to Canvas
- For mathematical equations use the Equation Editor or get used to the LaTeX editor which can be added to Google Chrome.
- For calculations, use Microsoft Excel or Google Sheets to enter any experimentally measured data, label them using **Named Ranges** and create repeatable calculations rather than doing calculations by hand with a calculator.
- Follow the Lab Report Format handout for writing your reports.
- Include your lab partners' names in the top right corner of each report.
- Lab reports are due on the Monday following the class.

## Grading

- Only 3 lab reports will be graded. Each lab will be worth 20 points.
- Lab reports will be worth 50% of the final Lab grade.
- Lab final will be worth 50% of the final Lab grade. It will be a comprehensive final based on all the experiments performed during the quarter.
- There are no make-up labs. If you miss a lab you get a ZERO. You cannot attend another lab session to make up the lab.
- At the end of the quarter, I will replace your lowest lab report grade with the average of the highest and lowest lab report grade. You must submit all lab reports to replace the lowest score with the average.