

## **Welcome to Physics 4B Lab.**

Instructor: Sean Fraser

Email: [frasersean@fhda.edu](mailto:frasersean@fhda.edu)

Office hours: after lab, and also by appointment

The main purpose of this lab is to gain practical "hands-on" experience in electricity and magnetism. Some of the lab activities may be similar to lecture-style demonstrations, while others may delve into more detail than your Physics 4B lecture.

Usually a lab manual will be available for you to read in advance of the lab. Based on the lab activity, a short lab report will usually be assigned. Lab grades will be based on attendance and written lab reports. Depending on the lab activity, lab reports will either be typed directly into a Canvas text-box, or hand-written on paper followed by an upload to Canvas of a picture or scan of your work (it is also fine if you prefer an electronic pad to pen-and-paper).

The format for laboratory meetings are intended to be in the style of "learn-by-investigating." Due to the Zoom nature of the lab, your instructor will handle the equipment. However your attendance and participation is vital !!! It is your chance to interact in real-time and ask questions. Indeed, it is anticipated that some of the questions to be answered in the lab reports will be generated by the students and the instructor during the lab!!!

### **Some Important Dates:**

JANUARY 15 Last day to add classes

JANUARY 17 Last day to drop classes without a W

JANUARY 28 Last day to request "Pass/No Pass"

FEBRUARY 25 Last day to drop classes with a W

**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 electricity and magnetism.

\*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.