Phys 151 Spring Semester 2022 Fundamentals of Physics Lab I

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**Office:** 243

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Contact Info:

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## Office Hours:

Zoom - https://swccd-edu.zoom.us/my/physicsmonster (see Canvas for password)

Mon 11:45 – 13:45 Thu 11:45 – 13:45

#### Online Lectures:

Due to the pandemic, the <u>first week of lectures</u> are online via Zoom held at the regular hours as on the school schedule. Your attendance is required and is recorded by Zoom when you log into a session. If you miss more than two weeks of lectures you could be dropped from the course.

You can get to the lectures using the Zoom ID **975 7613 0832** then type in the password posted on Canvas, or you can click on the direct links to lectures on Canvas (not the same links as office hours).

## Scanning apps:

You should use one of the apps below (or any other you prefer) to scan your work into a single pdf document before uploading onto Canvas. Do not upload multiple jpg images.

- CamScanner <u>https://camscanner.com</u>
- Microsoft Office Lens
- Dropbox
- Notes (built-in app on iPhone)

#### Important Dates:

Last day to add / drop without a W Feb 11 Last day to drop and receive a W Apr 29

Misc	Info:	

Final All chapters May 25 (Wed) 13:10 – 15:10

#### Textbooks:

Optional: Principles of Physics with WebAssign (5<sup>th</sup> edition), by Serway and Jewett, Published by Brooks/Cole

## Course Homepage:

- physicsmonster.org is where you will the online lecture notes.
- Canvas where you will get announcements, links to Zoom lectures.

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## Homework:

Home will consist of a mixture of lab reports, presentations on experiments and theoretical concepts, as well as written problems.

## Useful links:

- <u>https://swccd-edu.zoom.us/my/physicsmonster</u> (Office hours, not lectures see Canvas for password)
- physicsmonster.org (My SWC page)
- <u>http://phet.colorado.edu/</u> (Physics Education Technology)

## Corequisite: Phys 150, or equivalent.

## **Course Description:**

2 Units. Constitutes the lab component of PHYS 150 (Fundamentals of Physics I). Includes kinematics, dynamics, work and energy, momentum, fluids, waves, sound, simple harmonic motion, and thermodynamics. See course outline below.

## Course Objectives:

To prepare you to become a scientist and to get you one step closer to your degree. Passing this class indicates the ability to understand and apply the concepts in this course to various physics problems. Your performance will be measured based on the conceptual understanding as well as the ability to use mathematics to state and solve problems.

## Tentative Course Outline:

Motion Newton's laws Energy Momentum Rotation Oscillations Waves Fluid Thermodynamics

# Grading:

Your final course letter grade will be based on your overall score. Individual letter grades will not be formally assigned to exams. Letter grade will be determined approximately as follows:

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Note that the above scale is only an approximation and may be revised near the end of the semester.

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#### Evaluation:

The overall grade will be determined by your performance in the mid-term exam, final exam, quizzes and homework. They carry different weight in computing your overall grade, as summarized below:

Labs:80%Final Exam:20%

Final exam:

If you cannot make it to the final exam you will receive zero points unless you contact me <u>in</u> <u>advance</u> to arrange for a make up exam.

#### Tutoring:

Learning Assistance Services is now offering live, online tutoring via Canvas. Enrolling is easy and free. Click on the link below. This link will require you to log into your MySWC, and then take you to the enrollment site.

To enroll: <u>https://swccd.instructure.com/enroll/NKP9TP</u>

For more information, please to go https://www.swccd.edu/student-support/tutoring.

#### **Student Learning Outcomes:**

Students will analyze observations from different physical situations and recognize the underlying laws of physics that govern wide-ranging phenomena seen in nature.

Students will formulate and analyze physics problems mathematically by translating words into mathematical equations and find the quantitative solutions.

Students will be able to analyze data collected in experiments to investigate and draw possible contrasts with the predictions from the laws of physics.

Students will effectively communicate their ideas with the others by suggesting, assessing, and contrasting different approaches to the experiments.

#### **General Policy:**

For information regarding attendance, classroom policy, misconduct and tutorial services please refer to the syllabus addendum on the course website.

#### Disclaimer:

The content of this syllabus or course outline may change during the semester. It is your responsibility to keep track of the changes.