

# Physics 2212 – IPLS flavor

# Teams

Lab teams will be composed of 3-4 randomly chosen people.

Team composition is fixed for the semester.

We hope you will like each other. Whether you do or don't, you must treat each other politely and respectfully. This is good practice for your future work life.

Roles within the team rotate from lab to lab:

## Journalist

Takes notes of everything that happens during the experiment. Writes the “Journal” section of the lab report.

## Data Interpreter

Tabulates and displays data, operates the computer. Writes the “Data and Interpretation” section of the lab report.

## Critic

Performs outside research (if required), and thinks critically about the structure of the experiment. Writes the “Evaluation” section of the lab report.

## Checker

Checks all sections of the lab report for legibility and consistency. Acts as a project manager for the lab. In a group of three, the role of checker is shared by all group members.

# Lab report

The lab report contains three sections:

## Journal

This corresponds roughly to Materials and Methods in a scientific paper. A description of what you did, detailed enough that a third party could reconstruct (or replicate) your experiments.

## Data and Interpretation

Your findings, displayed in an easy-to-understand form, with the important features explicitly described and explained.

## Evaluation

Deeper reflection on what your results mean. Do they make sense? Are they consistent with other things you know? How could the lab have been improved?

# Grading

**Quizzes** will be graded and reported separately from labs.

Total quiz score will be scaled to a maximum of 5 of the 20 lab points.

Each **lab report** will be graded according to a rubric

## Completeness (1-3)

Are all the parts of the lab completed? Have you answered any specific questions we asked of you?  
Omitting something would negatively affect this score.

## Clarity (1-5)

Can we understand what you did and what you observed?  
Poor writing and poor visual presentation would negatively affect this score.

## Persuasiveness (1-5)

Have you convinced us?  
Mistakes in the physics, under-explaining, or over-hyping would negatively affect this.

## Inspiration (1-3)

An opportunity for us to give you credit for tackling a difficult question rather than taking it easy.

Total lab report scores will be scaled to 12 / 20 lab points.

## Pre-lab readiness assessments

We will frequently quiz you (lightly) on pre-lab reading or lab concepts. These readiness assessments will be administered through WebAssign and will count for 3 / 20 lab points.