

Course Syllabus

Section, Time, Meeting Location:	PHYS 1511-R08 Wednesday 10:30 - 12:30 AM
Professor:	Jan C. Bierowiec
Required Materials:	This lab manual, a lab notebook, and a calculator.
Recommended Materials:	A laptop (you can always use the laptops in the lab)

This lab is meant to act as both an extension and a supplement to the lectures for PHYS 1501, 1601, and 1701. Topics include kinematics in one and two dimensions, energy, momentum, and angular momentum.

Grade Policy: Lab reports: 70% Participation & Preparation: 10% Final: 20%

Participation & Preparation

Participation in lab seems obvious: you have to *do* the experiment to participate, but there's more to it than that. Each lab will have a "Pre-Lab" section with exercises or reading that must be completed before coming to lab. If you do not do these, then you will be behind in the lab itself which will harm your colleagues. Additionally, some experiments will involve collaboration among different groups, so everyone should stay on task while doing the work. **Note that there will be no pre-lab lecture, so if you arrive to lab without doing the pre-lab work, you will not be prepared for the lab!**

And most importantly, because science is inherently a collaborative process, you are expected to work together. This means with your groupmates but also with other groups. Science is never done in a vacuum!

Lab Reports

There will be no formal lab reports for the course, but rather you will have questions to answer while performing the labs that you will turn in. Most analysis will be designed to be performed during lab, where you will merely fill out boxes set aside in this manual for answers to various questions. There will be some analysis you might have to do at home, but much can be done during lab time.

Several labs have some more open-ended instructions. In these cases you will need to take good notes in your lab notebook (or on the laptop), and you may not be specifically guided in what you should measure or turn in. It will be **your responsibility** to do the lab correctly, but definitely ask if anything is unclear!

Lab Final

The lab final will be on the last day of classes, **Tuesday, December 9, 2025**, either from 4:30 – 5:30PM or from 5:30 – 6:30PM. Details on this will be given later, but let me know before the next lab period if you have a conflict!