

Laboratory Syllabus

PHYS 2057

Principles of Physics II Lab

General Information

Location

Regents 119

Professor Information

Patrick Johnson

Reies 507

pgj7@georgetown.edu

Description

The PHYS2057 laboratory topics complement the lecture content and include: reflection, refraction, interference, diffraction, optics, electrostatics, potential, circuits, magnetism, magnetic induction, electromagnetic waves, and emission spectra.

The concepts you learn in lecture are not simply abstract ideas: they constitute the framework that physicists use to represent how the real world actually works. This laboratory course gives you the opportunity to test out these concepts in experiments you construct. The hands on application of your understanding of physics in the laboratory will support your learning in the classroom.

To get the most out of this learning opportunity, you must commit yourself to being actively engaged in the laboratory session. This means thinking carefully about what you expect to observe, as well as what your results say about what actually happened. Be unafraid to express your thoughts in lively discussions—this is the sound of learning in action.

All lab content is posted online to Canvas (<http://canvas.georgetown.edu>). There is no textbook. You do not need any special supplies, except a pen or pencil (preferred) and calculator.

There are two laboratory sections. The enrollment is limited to 24 students per section. To accommodate as many students as possible, and in order to stay within this limit, we may ask you to change sections.

Session format

You are expected to arrive on time and come prepared for the lab session. The lab instructions are available on Canvas for you to review in advance.

An Instructor and/or a Teaching Assistant will lead your lab section. You will need to submit your lab report by the end of the lab session (at 12:45PM). If you need additional time, there will be no late penalty assessed in the first 24 hours after the due date.

We expect you to work collaboratively and share the responsibilities of the lab with your lab partners (two at most). However, the lab report is your own, so you do not have to agree with your lab partners on the answers to the questions asked in the report.

You are required to check in with your instructor or TA at several points during each lab before continuing on to the remainder of the lab activities. The purpose is to ensure that you have an adequate data set for subsequent analysis. By signing your check points, your instructor or TA is NOT indicating that your answers in your report are correct.

Grading

You will be graded based on the quality of your experimental work, whether you used acceptable scientific standards to report results, and the accuracy of your answers to the questions in the report. Failure to properly sign out may result in a deduction to your lab report grade.

Your report is due at the end of your lab session, unless otherwise stated by your Instructor. Late reports receive no more than half credit.

All regrade request are to be sent to Prof. Johnson (pgj7@georgetown.edu).

Unexcused missed labs receive 0 points.

Your final numerical grade for lab is the average of your equally weighted lab report grades.

Policies

Rescheduling labs

A request will be considered ONLY for the most extreme circumstances (e.g., severe illness, death in the family, legal obligation, religious holidays, etc), and must be made up at the first available opportunity within the same week if possible. In the event of a sudden illness, you must send an email to Prof. Johnson (pgj7@georgetown.edu) as soon as possible.

Failure to follow this policy will make the absence unexcused.

Collaborative work

You will be working collaboratively with other students in this course. You are encouraged to discuss your thoughts with your fellow students and with the instructors and TAs.

Please keep in mind, however, that you must turn in your own work. If two students turn in nearly identical solutions, neither will get credit. Copying someone else's work without understanding it is not only a violation of the Honor System (<http://honorcouncil.georgetown.edu>), but also a way to guarantee that you won't learn anything.

Sexual Misconduct

Georgetown University and its faculty and staff are committed to supporting survivors and those impacted by sexual misconduct, which includes sexual assault, sexual harassment, relationship violence, and stalking. Georgetown requires faculty members, unless otherwise designated as confidential, to report all disclosures of sexual misconduct to the University Title IX Coordinator or a Deputy Title IX Coordinator. If you disclose an incident of sexual misconduct to a professor or staff member in or outside of the classroom (with the exception of disclosures in papers), that faculty or staff member must report the incident to the Title IX Coordinator, or Deputy Title IX Coordinator. The coordinator will, in turn, reach out to the student to provide support, resources, and the option to meet. Please note that the student is not required to meet with the Title IX coordinator and no action will be taken without the student's awareness. More information about reporting options and resources can be found on the Sexual Misconduct Website: <https://sexualassault.georgetown.edu/resourcecenter>.

If you would prefer to speak to someone confidentially, Georgetown has a number of fully confidential professional resources that can provide support and assistance. These resources include:

- Health Education Services: Sexual Assault Response and Prevention: sarp@georgetown.edu
- Counseling and Psychiatric Services (CAPS): 202.687.6985

Additional resources are included below:

- Georgetown Self-Care Resource Guide: <https://studenthealth.georgetown.edu/health-promotion/self-care/>
- Georgetown Wellness Wheel: <https://studenthealth.georgetown.edu/hoya-wellness-wheel/>
- Georgetown Guide to Recognizing Students in Distress: <https://studentaffairs.georgetown.edu/studentoutreach/facultystaffresources/>

Pregnancy Modifications and Adjustments

Georgetown University is committed to creating an accessible and inclusive environment for pregnant students. At any point throughout their pregnancy students may request adjustments/modifications based on general pregnancy needs or accommodations based on a pregnancy-related complication or medical need. Students may also request accommodations following labor and delivery based on a complication or medical need.

To request pregnancy modifications, please complete the [SCS Pregnancy Modification Request Form](https://forms.gle/ZBfASxui7u13A8TU6): <https://forms.gle/ZBfASxui7u13A8TU6>

More information about pregnancy modifications can be found on the Title IX Georgetown University Website: <https://titleix.georgetown.edu/title-ix-pregnancy/student-pregnancy/>