



Course Syllabus

Course Name: Physics Laboratory I

Course Code: Vp141

Course Pre-requisites

Physics I (Vp140) or Honors Physics I (Vp160), concurrently

Textbook

Hugh D. YOUNG, Roger A. FREEDMAN, *University Physics* (14th edition)

Instructor

Mateusz KRZYZOSIAK (m.krzyzosiak@sjtu.edu.cn)

Office hours: Tuesday 14.00-15.30 (in F201), Thursday 10.00-11.30 (in F201), and by appointment

Office: room 439C (JI Building), Phone: 021-34206765 ext. 4393

Teaching Assistants/Laboratory Sessions Instructors

Lab no.	Name	Email	Office Hour (time & place)
1	Kuang Yue	sheryl@sjtu.edu.cn	TBD
2	Lin Yuechuan	linyuechuan@sjtu.edu.cn	TBD
3	Ma Ziqiao	martin_maziqiao@sjtu.edu.cn	TBD
4	Yao Yuan	yaoyuan_1999@sjtu.edu.cn	TBD
5	Ye Haojie	kiku_yehaojie@sjtu.edu.cn	TBD

Please check Canvas regularly for updates.

Grading Policy

Pre-lab Quiz: $5 \times 3\% = 15\%$

In-class Lab Work: $5 \times 7\% = 35\%$

Lab Report: $5 \times 10\% = 50\%$



Laboratory Sessions

There will be 5 laboratory sessions. Students are required to **read the lab manual and the corresponding sections of the textbook before the session**. Failing to attend a lab session results in the zero score for all items corresponding to the missed session.

Quiz

A short quiz will be given **at the beginning** of each lab session.

Data Sheet

Measurement data must be **recorded on a separate data sheet and shown to the instructor before leaving the laboratory**. The student's name, ID, date, and group number should be clearly indicated. The data sheet needs to be signed by the instructor and will not be accepted if the data is recorded with a pencil or modified with a **correction fluid/tape**. Students are **required to hand in the original data sheet along with the lab report**.

Lab report

The rules below apply to Exercises 2–5; lab report for Exercise 1 will be completed and submitted on-site during the laboratory session.

The students are required to write a lab report and submit it within a week after the laboratory session. Reports are due on Friday (one week after the session) at 3.30 p.m. Hardcopy of the lab report should be placed in the mailbox of the TA in charge of the exercise and the **corresponding electronic version** (in the pdf format), matching exactly the hardcopy, **needs to be submitted on-line in Canvas by this deadline**. You are **allowed to submit on-line only once**, so please make sure that the correct file is uploaded.

Please plan your time well, as late submissions will carry a penalty: 10% of the marks will be subtracted if the report is submitted after the deadline, but before Saturday 5.00 p.m.; there will be a 25% deduction for submissions after Saturday 5.00 p.m. but before Monday 11.30 a.m. No reports will be accepted after Monday 11.30 a.m.

Report submission is regarded to be complete if **both** the hardcopy (with the original data sheet) and the electronic version (identical with the hardcopy) are received on time. Otherwise late-submission penalties apply.

For exercises designed to be completed in groups of two, each student needs to submit his/her own report (please see the 'Honor Code' section below).



Honor Code

Oral discussion of the contents of laboratory exercises with other students is allowed and encouraged. It is not allowed to show any written work to other students. No electronic data is allowed to be shared (including raw measurement data and plots). In particular, the students are required to type the lab report, enter the raw data into the data analysis software, and plot all graphs by themselves. Use of fabricated, altered, and other students' data in the report is a violation of the Honor Code. The electronic version submitted on-line must match the hardcopy submitted to the mailbox.

Quiz papers and report forms provided by the instructor during the laboratory session must not be copied, photographed, or removed from the laboratory room. As changes to the contents of lab manuals are made every year, it is not allowed to use any previous editions of lab manuals.

If any references to academic textbooks or research journals are made, they should be properly identified with bibliographical data. No references to Wikipedia entries are allowed.

Any suspected violation of the Honor Code will be reported to the Honor Council immediately.

Course description and detailed teaching schedule

Physics laboratory Vp141 is aimed at providing students with hands-on experience in an introductory physics laboratory.

VP141

- (1) Collisions and Projectile Motion
- (2) Fluid viscosity
- (3) Simple harmonic motion: oscillations in mechanical systems
- (4) Measurement of the speed of sound
- (5) Damped and driven oscillations. Mechanical resonance

Laboratory sessions start from week 5 and will be preceded (the exact time and location will be announced on Canvas) by an introductory lecture explaining the structure of the course, report requirements, and including a lecture on measurement data analysis.