四川大學
SICHUAN UNIVERSITY

Physics Laboratory

Course Number:	PHY 102	**Term:**	Summer, 2021
Instructor:	TBA	**Email:**	
Contact Hours:	25	**Meeting Times:**	TBA
Credits:	1.0		

Course Description:

In this course, students will conduct hands-on laboratory experiments related to topics discussed during each week of the PHY 101 Physics Fundamentals course. The laboratories are chosen to coincide with topical coverage in the lectures as much as possible. Students will learn fundamentals of the scientific method, generation of hypotheses, experimental technique, making experimental observations, analyzing data and drawing conclusions for a wide range of physics experiments. Students will also participate in the oral presentation of scientific information for the development of skills in presenting scientific/technical information in an oral format.

Learning Objectives:

Upon successful completion of this course, students will be prepared to:

1. Identify relevant experimental apparatus
2. Use scientific methods of data collection and analysis
3. Illustrate and verify basic theoretical physics concepts through laboratory experiments
4. Draw conclusions from the results of laboratory experiment

Required Textbook and Course Materials:

Lab manual and text will be made available.

Language of Instruction:

This course is taught entirely in English, including lectures, homework, assignments and examinations. Teaching assistants will be fluent in both English and Mandarin.

Course Prerequisites:

Prerequisite of PHY 101 with a grade of C or better or Corequisite with PHY 101.

University Policies

Class Format

In Person. Course activities, discussions, assignments and resources will be made available at the start of and during the course.

Attendance, Participation and Deliverables

Courses are very intensive and in order to be successful, students need to attend every class. Attendance is required for all lectures and class activities. Class participation is expected from every student and form a significant portion of the final course grade.

All course deliverables (homework assignments and tests) are due on time as assigned. This course includes *no* make-ups, postponements or additional assignments, except for verified medical emergencies. If you miss an exam/assignment due to a non-sanctioned absence, your score on that exam/assignment will be zero.

Academic Dishonesty

All cases of academic dishonesty will be diligently pursued. Academic dishonesty includes representing the work of another as one's own work or cheating by any means. Academic dishonesty also includes aiding, abetting, concealing or attempting such activity. The penalty is automatic failure of the course and possible suspension from the university.

Grading Scale

Grading Scale (%)

97 - 100	A+	77 – 79	C+
93 - 96	A	73 – 76	C
90 - 92	A-	70 – 72	C-
87 - 89	B+	67 – 69	D+
83 - 86	B	63 – 66	D
80 - 82	B-	60 – 62	D-
		0 – 59	F

Professor- and Course-Specific Policies (*Tentative*)

Pre-Lab Reports:

Pre-Lab Reports will cover the main points and procedures for the Physics -Experiment labs that will be conducted during the course. Each assignment will consist of a series of questions to be answered after reading and reviewing the Lab Report document. Pre-lab reports are due at the beginning of each lab.

Laboratory Reports:

You will use your lab manual pages to complete the lab reports. Follow the procedure and fill

the appropriate tables, draw graphs, do calculations. Once you completed your lab report, print your name, your partner's name and the date. Tear off the associated pages from your manual and hand them to your instructor. The report will be graded by your instructor and returned back to you at the beginning of the following lab session. Please make sure you picked up your graded lab work every lab session. You should complete the Pre-Lab before coming to the lab and it is due at the beginning of the lab session. Please retain your graded lab reports at least until the final grade is posted. Make sure you ask for your graded lab report with your TA every lab session and keep it in a binder. In case of any grade disputes at the end of the semester, it will be student's responsibility to furnish the lab report to the TA or lab coordinator.

Grade Components:

Pre-Lab Reports	10%
Laboratory Reports	90%
Total	**100%**

Course Schedule (*Tentative*)

Module	Topics
1	Lab 1: Motion of Objects in One Dimension AND Composition and Resolution of Vectors
2	Lab 2: Newton's Laws of Motion AND Friction
3	Lab 3: Conservation of Energy during Simple Harmonic Motion AND Electrostatics and Electric Field
4	Lab 4: Electric Fields and Potentials AND Current and Voltage in a DC circuit: Ohm's Law
5	Lab 5: Current and Magnetism AND Faraday's Law of Electromagnetic Induction