

# PHYS 2101 Laboratory Syllabus

Fall 2023

---

**This course is an asynchronous online course (there are no in-class activities and no lab meeting time).**

Please be advised that PHYS 2101L lab sections are 1-credit-hour online **laboratory** courses. The co-requisite for this course is PHYS 2101 **lecture** course.

One of the labs in this course will require you to take a video of you performing the experiment, upload it to YouTube or another similar platform and send us a link. Your video will be used for grading purposes only and will not be shared anywhere else. If you are not comfortable with this, please email me immediately. **If I do not get the email within the first week of class from you regarding recording a video of the experiment, I will assume you are fine with it.**

**Instructor:** Dr. Umesh Silwal

**Office:** Burson 136

**Phone:** (704) 687-7470

**Email:** [usilwal@uncc.edu](mailto:usilwal@uncc.edu)

**Virtual Office Hour:** Wednesday 2:00 to 3:00 pm ET via Zoom (link available in Canvas)

Please put your **course and section number in the subject line** of your emails while emailing me.

***Note:*** *I am teaching multiple courses and sections and hence I will only be able to address your email properly if I know which course and lab section you belong to.*

## **COURSE MATERIAL REQUIRED:**

- Calculator (Scientific)
- A thin binder to keep your lab reports, homework, and quizzes
- A Desktop/Laptop/Tablet which has the ability to install/run Java and Flash players.
- Ruler, Protractor, and strings (For Lab 10)

## **COURSE INFORMATION:**

Physics 2101L laboratory is a course in experimental physics, which must be taken concurrently with the lecture course, PHYS 2101. The laboratories are chosen to coincide with topical coverage in the lecture as much as possible.

The labs are all posted on the lab course webpage in Canvas. Thus, no lab manual is required. **Also, there is no final exam.**

## COURSE OBJECTIVES:

By the end of the semester, student should be able to

- conduct organized scientific investigations,
- report observations and results clearly and completely,
- draw conclusions from the results based on their understanding of the relevant physics, and
- explore introductory physics concepts via computer simulation experiments and exercises.

## LABORATORY ACTIVITIES

- 10 online simulation exercises

You are supposed to do your lab on your own. Copying laboratory report from another student violates academic integrity. Your lab report should reflect your data and analysis and should not be the same as another student's data and analysis. There will be a penalty for both students if the lab grader detects two similar reports. Refer to the "Academic Integrity" section of the syllabus for detail.

## COURSE GRADING:

**Each lab will be worth 10 % of the overall grade.**

Individual Lab grade breakup will be as follows:

Pre-Lab Quiz -----	10 points
Lab Report -----	80 points
Post-Lab Quiz -----	10 points
<b>Total-----</b>	<b>100 points per lab</b>

(Grade assignment:  $\geq 90\%$ : A, 80-89.9: B, 70-79.9: C, 60-69.9: D,  $< 60\%$ : F)

*The instructor reserves the right to change the syllabus or the modality of the lab anytime.*

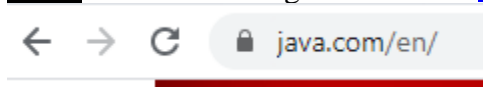
## Simulation Activities & Exercises

For each week's lab, you will have 5 things to do in the following order:

- (i) Read the General Instructions. There will be videos that you need to watch and take notes. Also, download the "Online Material" (lab), read the theory section, and take notes.
- (ii) Complete the pre-lab quiz. The questions in this pre-lab will be from videos and the theory section of the lab manual you read in (i).
- (iii) Download and complete the lab.
- (iv) Upload your completed lab in PDF format to Canvas. ***Do not email us!***
- (v) Complete the post-lab quiz. Post-lab quiz will have questions from the videos you watched, the theory section of the lab you read, and the lab portion you did in part (iii).

Your device requires **Java** in order to run these simulations.

**Java:** To install Java go to this link: <https://www.java.com/en/>



Refer to the “Running/Troubleshooting Simulation” page of the Canvas if your simulation is not working properly.

### PHYS 2101L-Lab Schedule (Online Lab Section)

Dates/Week of	Labs	Due dates
Aug 21 <sup>st</sup>	No Lab	-
Aug 28 <sup>th</sup>	No Lab Syllabus Quiz	Sept 4
Sept 4 <sup>th</sup>	Lab 1	Sept 11
Sept 11 <sup>th</sup>	Lab 2	Sept 18
Sept 18 <sup>th</sup>	Lab 3	Sept 25
Sept 25 <sup>th</sup>	Lab 4	Oct 2
Oct 2 <sup>nd</sup>	Lab 5	Oct 9
Oct 9 <sup>th</sup>	Lab 6	Oct 16
Oct 16 <sup>th</sup>	Lab 7	Oct 30
Oct 23 <sup>rd</sup>	No Lab	-
Oct 30 <sup>th</sup>	Lab 8	Nov 6
Nov 6 <sup>th</sup>	Lab 9	Nov 13
Nov 13 <sup>th</sup>	Lab 10	Nov 20
Nov 20 <sup>th</sup>	No Lab	-
Nov 27 <sup>th</sup>	No Lab	-
Dec 4 <sup>th</sup>	No Lab	-
Dec 11 <sup>th</sup>	No Lab	-

Labs are strictly due by 11:59 PM of the specified date. **All late submissions will automatically get a grade of zero.** If you were unable to submit the lab on time due to reasons approved by the university, please email me and cc it to your TA **with proof** of your absence.

### Academic Integrity:

Students have the responsibility to know and observe the requirements of *The UNCC Code of Student Academic Integrity* (See the *UNCC Catalog*). This code forbids cheating, fabrication or falsification of information, multiple submissions of academic work, plagiarism, abuse of academic materials, and complicity in academic dishonesty.

Any special requirements or permission regarding academic integrity will be stated by the instructor and are binding on the students. Academic evaluations in this course include a judgment that the student’s work is free from academic dishonesty of any type, and grades in this course therefore should be and will be adversely affected by academic dishonesty. Students who violate the code can be expelled from UNCC. **The normal penalty for a first offense is zero credit on the work involving dishonesty and a further substantial**

**reduction of the course grade.** In almost all cases the course grade is reduced to F. Copies of the code can be obtained from the Dean of Students Office. Standards of academic integrity will be enforced in this course. Students are expected to report cases of academic dishonesty to the course instructor.

### **TITLE IX Reporting Obligations**

UNC Charlotte is committed to providing an environment free of all forms of discrimination and sexual harassment, including sexual assault, domestic violence, dating violence, and stalking. If you (or someone you know) has experienced or experiences any of these incidents, know that you are not alone. UNC Charlotte has staff members trained to support you in navigating campus life, accessing health and counseling services, providing academic and housing accommodations, helping with civil protective orders, and more.

Please be aware that all UNC Charlotte employees, including faculty members, are expected to relay any information or reports of sexual misconduct they receive to the Title IX Coordinator. This means that if you tell me about a situation involving sexual harassment, sexual assault, dating violence, domestic violence, or stalking, I am expected to [report the information to the Title IX Coordinator](#). Although I am expected to report the situation, you will still have options about how your case will be handled, including whether or not you wish to pursue a formal complaint. Our goal is to make sure you are aware of the range of options available to you and have access to the resources you need.

If you wish to speak to someone confidentially, you can contact the following on-campus resources, who are not required to report the incident to the Title IX Coordinator: (1) University Counseling Center ([counselingcenter.uncc.edu](http://counselingcenter.uncc.edu), 7-0311); or (2) Student Health Center ([studenthealth.uncc.edu](http://studenthealth.uncc.edu), 7-7400). Additional information about your options is also available at [titleix.uncc.edu](http://titleix.uncc.edu) under the “Students” tab.