

**Syllabus for PHYS 111L (Section 1)**  
**General Physics I Lab – Fall 2021**

**Class Location / Times:** T 4:00-7:00PM in RITA 373

**Instructor Information:** Dr. Mike Larsen

**Phone:** 843-327-2372

**Instructor Email Address:** LarsenML@cofc.edu

**Office Location:** RITA 317

**Corequisite:** PHYS111 or permission of the instructor

**Course Webpage:** [http://larsenml.people.cofc.edu/phys111L\\_fall21.html](http://larsenml.people.cofc.edu/phys111L_fall21.html)

(Please see course page for full description of course, rationale, and supplementary information).

**Office Hours:** Mondays 2-3 PM, Tuesdays 8:30-9:30 AM, and Thursdays 9:30-10:30 AM or by appointment. Office hours will be predominantly handled through zoom unless scheduled otherwise. You can schedule a one-on-one zoom meeting time during the specified office hours by going to <http://www.calendly.com/mikelarsen> If you desire an in-person meeting or would like to schedule a zoom meeting at a different time, please contact me through the course Slack or through email and I will try to come up with a mutually agreeable time and a place to meet.

**Official Catalog Course Description**

Introduction to principles of physics primarily for scientists and engineers. Subjects covered are mechanics (vectors, linear and rotational motion, equilibrium and gravitational fields); heat (mechanical and thermal properties of solids, liquids, and gases); and wave motion.

**Attendance Policy:** It is expected that you will attend class if you are healthy. I will. We are holding this class in person and plan to continue to do so unless (i) I'm told otherwise by my superiors because the university has decided to pivot, (ii) I have to quarantine or self-isolate, or (iii) a substantial portion of the students in the class have told me they have to quarantine or self-isolate.

In-person attendance for labs is vital for a beneficial student learning experience. *If you are healthy and not under mandatory quarantine/self-isolation protocols, you should be in lab!*

**Course Text:** We will be working out of a lab manual that you should be able to find in Oaks under the "Content" tab.

**Necessary Materials:** You must come to lab with the necessary materials in order to participate. This includes (i) wearing closed-toe shoes and masks, (ii) a digital or printed-out copy of the portion of the lab manual needed for the day's activities, (iii) writing utensil, (iv) your PHYS 111 Textbook, (v) a scientific calculator (will be needed for quizzes; the free ones we loan you are sufficient but likely inferior to what you might buy for yourself. Note that cell phone calculators will *not* be allowed during quizzes).

## **Plan for Course**

As of the moment I am writing this syllabus, the plan is for this course – and all other courses in the Physics and Astronomy department in Fall 2021 – to be fully face-to-face. That being said, we’re still in the midst of a global pandemic. Under 42% of state residents are currently fully vaccinated. Early indicators are that our student population has higher vaccination rates than this, but we’re nowhere close to universal vaccination – outbreaks are expected.

I hope (perhaps foolishly) that we can have something akin to a “normal” semester with minimal interruptions. However, I will keep the tools necessary to transition to on-line instruction ready in case we have to pivot. Keep plugged into the on-line resources relevant to this course (the course webpage, the course Oaks page, and the course slack) so that we will be able to switch modalities when or if we need to. If we *do* have to switch to an on-line modality, there will be a lot of things that change about the course – online labs are very different than in-person labs.

While we are face-to-face, please come to class (when able); I think we have all learned about the value of in-person instruction after over a year of zoom university. Weekly lab products, weekly lab quizzes, and weekly lab activities will all be taken/conducted live; if you are not here, you won’t be able to the week’s lab quiz and your participation in the week’s lab will be limited. Although I will attempt to come up with some means of accommodating those who need to quarantine or self-isolate through a synchronous zoom, the nature of lab makes recording the lectures impractical.

Just like in lecture, if you are unable to come to lab because of a need to self-isolate, quarantine, or because you feel unwell you need to either email me, send me a text, or send me a slack DM between 6AM and 9AM on the morning of the day you will be missing lab. If I have received such a message, I will send you a zoom link to hopefully allow you to participate in the introductory lecture/explanation and, after that, hopefully you can coordinate with your lab group-mates to participate in some manner for the weekly lab activity.

## **Lab Groups:**

You will have assigned lab groups that may change periodically. It is your responsibility to exchange contact information with your partners, and this could be pretty important if one or more members of a lab group needs to participate remotely due to quarantine or self-isolation. Some lab reports may take the form of “group” lab reports, where an entire group has the option to submit a single report and all grades are shared (Not all labs will be graded this way, and if you prefer to turn in your own report rather than share the report for the group that is your prerogative.) Absence hurts not only yourself, but also your lab group members; please be considerate to your classmates and come to class when able.

## Lab Policies

We're in a global pandemic. Even in non-pandemic times, a good rule of thumb for life is to not have food or beverage in a science lab if you plan on staying healthy. I am aware that our lab meeting through an interval of time where many of us would normally be eating a meal, but that's a burden we'll all have to shoulder. Do not bring food or drink into the lab.

Open-toed shoes are also forbidden in lab. If you are wearing open-toed shoes (sandals, flip-flops, etc.) the instructor may be required to remove you from class.

There are also a number of safety concerns in any science lab. Your safety is always your instructor's top priority. It is expected that you will follow the instructor's verbal announcements regarding all classroom behavior, and follow the safety guidelines as set out at the beginning of the semester at all times. If necessary, your instructor may – at his discretion – require you to leave lab for the day (and forfeit all graded credit associated with the lab activities) in the interest of the safety of everyone in the room. No safety risks of any kind will be tolerated by the instructor.

## Grading

Your grade for lab will be based on three components. Expectations for each of these components will be handed out or discussed separately.

1. Prelab Activities (10%). The week before each lab (except, of course, the first week of lab) you will be given a handout with questions that can be answered by reading through the lab manual's content for the following week's lab. These questions are due *via upload to OAKS via PDF!* prior to the beginning of the following week's lab, and are designed to ensure that you come to lab already having a general idea of what you will be doing each week. No credit will be awarded for late pre-lab uploads.
2. Quiz Average (35%). Most weeks a quiz will be given based on the previous week's lab. You will have approximately 20-30 minutes to complete this quiz.
3. Lab Reports (55%). Depending on the lab, your lab report can take one of three different formats.
  - Formal Lab Reports (22% of final grade, 40% of the Lab Report portion of your grade). 3-5 times during the semester, your instructor will inform you that you are expected to complete a formal or semi-formal lab report. Some of these formal reports may be offered as a group report, at the instructor's discretion. General instructions for writing such a report can be found at [http://larsenml.people.cofc.edu/lab\\_guidelines.pdf](http://larsenml.people.cofc.edu/lab_guidelines.pdf) and the rubric used by your instructor to grade these reports can be found at [https://larsenml.people.cofc.edu/formal\\_template.pdf](https://larsenml.people.cofc.edu/formal_template.pdf).

- Shoot for your Grade (11% of final grade, 20% of Lab Report portion of your grade). 2-3 times during the semester, your instructor will ask each group to complete a task. Based on your success in completing this task and/or success in answering some questions your group will receive a holistic grade for the activity for the week without any written component.
- Informal Lab Reports / End of Lab Results and Analysis (22% of final grade, 40% of Lab Report portion of your grade). In the labs where you are not asked to compose a formal or semi-formal lab report and where you are not going through the “shoot for your grade” protocol, you will be asked to turn in data, analysis, computations, answers to questions, graphs, error-analysis, and/or brief summaries of lab activities to the instructor. These will be turned in before leaving lab for the day, and generally graded holistically for the group.

Note that your lowest quiz, formal lab report, shoot for your grade, informal lab report, and prelab score will be dropped from each student’s grade.

No makeup labs will be offered for any reason, and you cannot attend any other lab section in lieu of coming to our normally scheduled lab. Dropping the lowest quiz, formal lab report, shoot for your grade, informal lab report, and prelab score as stated above should allow even for those who must quarantine or self-isolate to succeed.

### Grading Scale

The grading scale applied to this class will be *no more stringent than*:

A	91-100	B-	80-81	D+	69-70
A-	90-91	C+	79-80	D	61-69
B+	89-90	C	71-79	D-	60-61
B	81-89	C-	70-71	F	<60

In practice, it is frequently the case the actual final grading scale applied to the course will be more generous than what is noted above.

The rest of this syllabus consists of statements that are required for assessment or the specific language used is mandated by CofC administration. I believe some of this information is very important, but I assume you get the same information in every syllabus so I have put the remaining content on its own portion of the syllabus to make it easier for you to distinguish between the items specific for this course and the items that appear on all syllabi.

## Required Learning Outcomes Statements

In order to meet assessment requirements, it is necessary to include course objectives and learning outcomes for every course. Here they are for this course.

**General Education Student Learning Outcomes** The General Education Student Learning Outcomes below will be directly assessed in the second course of the introductory sequence.

- Students apply physical/natural principles to analyze and solve problems
- Students explain how science impacts society

**Student Learning Outcomes** The student learning outcomes will be directly assessed for each student throughout the course via prelabs, quizzes, and lab reports.

At the end of this course, successful students will be able to:

- Perform measurements of kinematics, dynamics, fluids, and wave phenomena
- Perform objective observations of physical phenomena
- Draw conclusions based on observations and data
- Analyze quantitative information using sketches, graphs, and tables
- Enhance their error analysis and interpretation skills
- Enhance their scientific writing skills
- Enhance teamwork and communication skills
- Learn lab safety

## Required Syllabus Statements

The university requires us to include some standard (so-called “boilerplate”) text into all syllabi. Since you presumably see the same text in all of your classes, I have grouped these statements together.

### **Honor Code and Academic Integrity**

Lying, cheating, attempted cheating, and plagiarism are violations of our Honor Code that, when suspected, are investigated. Each incident will be examined to determine the degree of deception involved.

Incidents where the instructor determines the student’s actions are related more to misunderstanding and confusion will be handled by the instructor. The instructor designs an intervention or assigns a grade reduction to help prevent the student from repeating the error. The response is recorded on a form and signed both by the instructor and the student. It is forwarded to the Office of the Dean of Students and placed in the student’s file.

Cases of suspected academic dishonesty will be reported directly by the instructor and/or others having knowledge of the incident to the Dean of Students. A student found responsible by the Honor Board for academic dishonesty will receive a XXF in the course, indicating failure of the course due to academic dishonesty. This status indicator will appear on the student’s transcript for two years after which the student may petition for the XX to be expunged. The F is permanent.

Students can find the complete Honor Code and all related processes in the *Student Handbook* at <http://deanofstudents.cofc.edu/honor-system/studenthandbook/>

### **Students with Disabilities**

The College will make reasonable accommodations for persons with documented disabilities. Students should apply at the Center for Disability Services/SNAP located on the first floor of the Lightsey Center, Suite 104. Students approved for accommodations are responsible for notifying your professor as soon as possible and subsequently contacting your professor again at least one week before any specific accommodation is needed.

### **Oaks**

OAKS, including Gradebook, will be used for this course throughout the semester to provide the syllabus and class materials and grades for each assignment, which will be regularly posted.

### **Inclement Weather, Pandemic, or Substantial Interruption of Instruction**

If in-person classes are suspended, faculty will announce to their students a detailed plan for a change in modality to ensure the continuity of learning. All students must have access to a computer equipped with a web camera, microphone, and internet access. Resources are available to provide students with these essential tools.

### **Mental and Physical Wellbeing**

At the college, we take every students' mental and physical wellbeing seriously. If you find yourself experiencing physical illnesses, please reach out to student health services (843-953-5520). And if you find yourself experiencing any mental health challenges (for example, anxiety, depression, stressful life events, sleep deprivation, and/or loneliness/homesickness) please consider contacting either the Counseling Center (professional counselors at <http://counseling.cofc.edu> or 843-953-5640 3rd Robert Scott Small Building) or the Students 4 Support (certified volunteers through texting "4support" to 839863, visit <https://counseling.cofc.edu/s4s/index.php>, or meet with them in person 3rd Floor Stern Center). These services are there for you to help you cope with difficulties you may be experiencing and to maintain optimal physical and mental health.

### **Food and Housing Resources**

Many CofC students report experiencing food and housing insecurity. If you are facing challenges in securing food (such as not being able to afford groceries or get sufficient food to eat every day) and housing (such as lacking a safe and stable place to live), please contact the Dean of Students for support (<http://studentaffairs.cofc.edu/about/salt.php>). Also, you can go to <http://studentaffairs.cofc.edu/student-food-housing-insecurity/index.php> to learn about food and housing assistance that is available to you. In addition, there are several resources on and off campus to help. You can visit the Cougar Pantry in the Stern Center (2nd floor), a student-run food pantry that provides dry-goods and hygiene products at no charge to any student in need. Please also consider reaching out to Professor Larsen if you are comfortable in doing so.