

Syllabus for PHYS 101 (Sections 11-12)
Introductory Physics I – Fall 2020

Class Location / Times: TR, 9:25 AM (Synchronously Via Zoom)

Instructor Information: Dr. Mike Larsen

Phone: 843-327-2372

Instructor Email Address: LarsenML@cofc.edu

Office Location: RITA 317

Pre- and Co-requisites: A working knowledge of algebra and trigonometry (Prereq) and PHYS101L (Coreq)

Course Webpage: http://larsenml.people.cofc.edu/phys101_fall20.html

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

Office Hours: Mondays 12-1 PM, Tuesdays 8:30-9:30 AM, Wednesdays 8-9 AM, and Fridays 1-2 PM or by appointment. All office hours will be conducted via zoom; please contact me via email, text, or voice call to make further arrangements.

Course Text: The official recommended text is “College Physics” by Serway and Vuille (any recent edition will do).

Course Description

A general physics course intended for those students who plan to take only one physics sequence. 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.

Plan for Course

This course is listed as online only, with lectures given synchronously via zoom. This means that we will never meet in person for lecture (though your labs are currently scheduled to be hybrid with occasional in-person meetings). For those of you who have unstable/unreliable internet, and to accommodate anyone who is sick or needs to take care of someone else, recorded versions of class lectures will be made available for asynchronous viewing – but you are encouraged to attend and participate in the synchronous lectures. More details about our plan will be conveyed on the first day of class and on our course webpage.

Grading

Grades will be based on timely completion of assorted homework assignments (50%), mid-term exams (30% total – currently expected to be 3 exams at 10% each but may be 2 exams at 15% each), and a final exam (20%).

In an effort to be as flexible as possible, we will not plan to have any unscheduled assessments in this course. Your two lowest homework assignments will be dropped, but it is in your interest to leave that cushion in place as long as possible in case you or someone you would need to take care of becomes unavailable for a portion of the semester.

If you are unable to make an exam due to illness or other obligation, a make-up assessment will be arranged; in most scenarios, this is expected to be an oral exam conducted through zoom. Additionally, because this course is conducted entirely online where cheating on exams is difficult to trace, the instructor reserves the right to follow-up after any written exam with an oral zoom examination to determine whether the students' understanding is consistent with their submitted written work.

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

Attendance Policy

It is expected that you will attend class if possible. I will. You are responsible for any material missed in class, including announcements about homework/test date changes, etc. If unable to attend class, please view recorded lectures prior to next course meeting.

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 Objectives and 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.

Learning Objectives

This course endeavors to aid the motivated student in the following tasks:

- Learn about the mathematical relationships governing classical translational and rotational motion under constant forces and torques.
- Learn about the underlying mechanisms that induce changes in motions.
- Develop a set of tools to enable a meaningful, quantitative analysis of a scenario in which some common forces and torques are applied.
- Develop a complementary toolset that uses the ideas of work, energy, and momentum to investigate physical systems.
- Obtaining exposure to selected ideas in fluids, thermodynamics, and waves.
- Developing and refining quantitative problem solving skills.

Learning Outcomes

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

- Use kinematic equations to study translational and rotational motion
- Apply Newton's Laws for translational and rotational motion
- Demonstrate conservation laws related to energy and momentum
- Apply laws of physics to fluids
- Investigate fundamental laws and concepts of thermodynamics
- Demonstrate an understanding of the basic phenomena/concepts of waves and simple harmonic motion
- Develop critical thinking and problem solving skills
- Demonstrate the ability to relate physics concepts to other disciplines

Required General Education Learning Outcomes

Additional, in order to meet assessment requirements, all general education courses (like this one) are required to list the appropriate Learning Outcomes. Here they are for the Natural Sciences:

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

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://studentaffairs.cofc.edu/honor-system/studenthandbook/index.php>

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.

Continuity of Learning

Due to social distancing requirements, this class will include a variety of online and technology enhanced components to reinforce continuity of learning for all enrolled students. Before the drop/add deadline, students should decide whether the course plan on the syllabus matches their own circumstances.

Recording of Classes

Class sessions will be recorded via both voice and video recording. By attending and remaining in this class, the student consents to being recorded. Recorded class sessions are for instructional use only and may not be shared with anyone who is not enrolled in the class.

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 <http://counseling.cofc.edu/cct/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.

Fall 2020 General Syllabus Statement

The College of Charleston is committed to promoting the health and safety of our campus community. To that end, all faculty and students must abide by public health guidelines that include practicing social distancing in the classroom and elsewhere on campus, following signage indicating the entrance, exit, and traffic flow in and around campus buildings, wearing a mask or cloth face covering while in the presence of others, washing or sanitizing hands frequently, sanitizing individual and shared learning and work spaces, and staying home when sick. These practices are mandatory. Students will not be allowed to attend class without an appropriate face covering or when showing symptoms of illness.

Due to social distancing requirements, the number of students allowed in the classroom at one time is significantly reduced. As a result, most in-person courses will include a variety of online and technology enhanced components to ensure continuity of learning for each student throughout the semester. These strategies will vary by course section and students are advised to read each syllabus carefully. Faculty have planned each course to enable all students, whether they are in the classroom or working remotely, to be fully engaged in the learning experience. Before the drop/add deadline, students should decide whether the course plan on the syllabus matches their own circumstance. All faculty will use OAKS to facilitate student access to the course syllabus, course materials, and the gradebook. The College of Charleston's standard grading system is in effect.

There is a possibility that the semester will be disrupted by weather or the pandemic. Every course syllabus will include a plan for a change in modality to ensure the continuity of learning in the event in-person classes must be suspended. Regardless of the method of instruction, all courses will move online for one week after Thanksgiving. Final exams will be administered online. Therefore, 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.

The College anticipates that some members of the community will fall ill or test positive for the coronavirus, and then be required to quarantine thereby missing class, assignments, and assessments. Faculty are expected to provide reasonable accommodations as determined by the content, level, and expectations of their courses for students who become ill or indicate a need to isolate themselves. To the extent possible, arrangements will be made for students with COVID-19 related absences to continue in the class. Faculty are encouraged to make explicit in their syllabus what sorts of accommodations students can expect with respect to missed course meetings, assignments, and assessments. However, students should be aware that extended absences for any reason cannot be accommodated in every course. Missed assignments and assessments may result in poor or failing grades. If a student is absent from class for an extended period, a withdrawal (W) before the deadline should be strongly considered. In all cases, assigning course grades is the responsibility of the instructor consistent with the grading policy published on the syllabus.