

**Syllabus for PHYS 157
Honors Physics I (Section I) – Fall 2015**

Class Times/Location: MWF, 11:30 AM - 12:20 PM, Harbor Walk West Room 111

Instructor Information: Dr. Mike Larsen

Office Phone: 843-953-2128

Email address: LarsenML@cofc.edu

Office Hours: Monday 7-8 AM, Tuesday 10:30-11:30 AM, Wednesday 8-9 AM, or by appointment. (I'm here a lot, and usually am willing to drop anything I'm working on to help you out. If you need help outside of "official office hours", try to find me [my office door has a Dr. Larsen finder that can sometimes be helpful]; most often I'll happily drop what I'm doing to help you).

Weekly Problem Solving Help Session: Thursdays, 3:45-5:15 PM. (Location TBD)

Office Location: JC Long 217 (I also am sometimes in a lab or the student room during office hours – check JC Long 218, 220, or 221 if I don't seem to be where you expect.)

Course Webpage: http://larsenml.people.cofc.edu/hons157_fall15.html

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

Textbook: Walker, J., D. Halliday, and R. Resnick (2014). *Fundamentals of Physics* (10th Ed.) Wiley.

Note: There are many different options associated with this textbook. There's an "extended edition", there's a "standard edition" that can be split into two volumes, there's a "loose-leaf" edition, and there's even an etext of the extended edition. All of these editions can take on a wide variety of different total costs. Here's what you need to know. In this semester, we'll be covering part or all of the first 16 chapters of the text. Next semester, if you take the class and I still teach it, we will work up to chapter 36 or so. You will not need the extended edition, but – if it is cheaper – go ahead and get it. If you plan to take both semesters of the course, it is likely cheaper to buy the book once than to buy each volume each semester.

You will *not* need to get access to WileyPlus or any other on-line homework or resource system.

If you have any other questions associated with the textbook, please feel free to ask.

Honor Code / Code of Conduct

It is expected that you will adhere to the university's honor code and student code of conduct, as can be found in your student handbook.

Attendance Policy

It is expected that you will attend class. I will. You are responsible for any material missed in class, including announcements about homework/test date changes, etc.

Classroom Policies

Please treat your classmates and professor with the respect due to them as fellow adults and human beings. Your professor always reserves the right to dismiss you from the room.

Please do not text message, browse the internet, check email, or engage in other non-class-related communications during class.

Cell phones – Few things irritate your professor as much as having his lecture interrupted by a cell phone ring. It totally makes him lose his train of thought. Please be considerate and turn it on vibrate during lectures. Also, all cell phones must be turned off (NOT JUST TO VIBRATE) during all exams.

Final Exam Time Period:

Friday, December 11th, from 12:00-3:00 PM

Tentative Midterm Test Dates:

In order to give you enough time to complete the midterm exams without being rushed, we will conduct your midterm exams during your weekly lab session. You will be given 3 hours to complete each exam, even though they are written in such a way that they can be completed in about an hour and a half.

Dates of these exams are somewhat subject to change, but we currently anticipate your midterm exam dates to be: Tuesday, September 29th (4:30-7:30 PM)

Tuesday, November 3rd (4:30-7:30 PM)

Tuesday, December 1st (4:30-7:30 PM)

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.

Grading Grades will be based on three components:

- Performance on exams (17.5% each) (combines for 52.5% of the class grade)
- Performance on regularly assigned homework (30%)
- Performance on the comprehensive final examination (17.5%) (can count for up to 35%; see below).

Your instructor makes every effort to return homework and exams as soon as possible after receiving them. Because of this, you will often receive homework back the class after it was due and you may often go through some of the problems in class. Since it would be unfair to accept work from students who had the advantage of hearing the correct answers in class, late work will be docked 50% if turned in between the original due date and the next class, and will not be accepted for credit more than one class after it was originally due. Your lowest homework grade will be dropped.

*There will be no makeup exams for any reason. If you have a conflict with a scheduled exam, you may work with your professor to try to schedule to take the exam **before** the scheduled exam time (but not after). If you have a known conflict – due to a sporting event, religious observance, interview, or other important event – it is your responsibility to use office hours to discuss options with the instructor *well in advance of the exam date* to try to work out a mutually acceptable solution.*

Following policy, the final exam is required. There is a little extra wrinkle regarding the final, however; the (comprehensive) final will count for at least 17.5% of your grade, but may count for up to 35%. I will allow you to replace your lowest exam score with your final exam grade, if your final exam grade is better than your lowest exam score. Because you have the ability to drop this lowest exam score, *no makeups for missed exams will be given!!!* The “0” score you record on the missed exam will be replaced by your final exam score. That does mean, however, that your “safety net” is gone; if you do poorly on one of the other exams, unfortunately you will not be able to erase that score.

Since this is an honors course – and we would like to encourage you to make links between different disciplines and engage with the content in a meaningful way – there is an opportunity to replace some of your homework grades with an individual project. Information about this project, its expectations, and the way it would impact your grade will be distributed under separate cover.

Grading Scale The formal numerical scale might move around a little bit depending on the class' performance, but the final grading scale will be *no more stringent* than:

A	≥ 91	B+	89	B-	80	C	71-78	D	60 - 69
A-	90	B	81-88	C+	79	C-	70	F	<60

General Education Student Learning Outcomes

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

Student Learning Outcomes

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

- Apply kinematic equations to simple one-dimensional and two-dimensional problems.
- Summarize Newton's Laws of motion, and apply them to problem solving associated with a Physical system.
- Utilize the notions of work, kinetic energy, and potential energy to analyze a system and engage in quantitative problem solving.
- Describe and use the conceptual ideas of linear and angular momentum.