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Syllabus for PHYS 111
General Physics I (Sections 1-2) – Fall 2016

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Class Times/Location: MWF, 8:30 AM - 9:20 AM, Harbor Walk West Room 110

Instructor Information: Dr. Mike Larsen

Office Phone: 843-953-2128

Office Hours: Mondays, Wednesdays, and Fridays from 7:15-8:30 AM (in Harbor Walk West First Floor; likely in room 110 as I prepare for our class); Mondays and Wednesdays from 10 AM - 11 AM (in JC Long room 217). Additional times are available by appointment; stop by anytime – but realize that at other times I'm not certain to be in my office or available.

Office Location: JC Long room 217

Email address: LarsenML@cofc.edu (please use sparingly; I'd rather talk to you in person before or after class if you have a question or a concern).

Pre- or Co-requisite: MATH 120 or equivalent or instructor permission

Course Webpage: http://larsenml.people.cofc.edu/phys111_fall16.html
(Please see course page for full description of course, rationale, and supplementary information).

Textbook: Serway, R.A. and J.W. Jewett (2012). *Principles of Physics: A Calculus-Based Text* (5th Ed.)
Note: There are many different ways to buy this text and others like it. I will try to make what you do and do not need clear in class. We will not be using any of the on-line homework/web-assign in my section of the course. This semester, we will be covering most of the first 18 chapters of the text.

Final Exam Time Period: Monday, December 12th, 2016. 8-11 AM.

Tentative Midterm Test Dates: (Subject to Change):
Friday, September 30th
Friday, October 21st
Friday, December 2nd

Attendance Policy

It is expected that you will attend class. I will. However, attendance is not a part of your course grade. You are responsible for mastering the material presented, turning in homework assignments, completing exams, and adjusting your tentative schedule as the semester progresses, and most of these things can only be done if you are attending class. That being said, you are adults and will be treated as such – if you are ready to deal with the consequences of missing a class (which may include missing important announcements, completing and/or turning in work that drastically impacts your grade, or being exposed to testable material), then attending or not is ultimately your prerogative.

It is extremely difficult to do well if you miss class. It is highly recommended that you attend every class if you possibly can.

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. This means you may need to buy a calculator not on your cell phone for use in exams (or be stuck using one of the cheap ones that our department can loan you). If your professor sees a phone out (or hears one ring) during an exam, it will be assumed that you were using it to cheat.

Honor Code / Code of Conduct / Academic Integrity Statement

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.

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 midterm exams (20% each) (combines for 60% of the class grade)

- Performance on regularly assigned homework (25%)

- Performance on the comprehensive final examination (15%) (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. (This means approach Dr. Larsen weeks ahead of time, not days or hours. The expected exam dates are available to you right now – the first day of classes. A previously scheduled conflict should not occur as a surprise.)

Homework will be assigned approximately weekly. Please ensure that your solutions are complete, legible, and logically coherent. You may work with your classmates on homework (except HW1), but – if you do – make sure (i) you *clearly* indicate on your work who else you worked with. Do this on every problem you collaborated on, and (ii) make sure the work is ultimately your own. I am very tolerant (and even encourage) collaborative work on homework, but I get rather irritated if it becomes obvious that everyone just copied the same answer without thinking it through for themselves. By all means, work with other students to develop an approach to the problem – but turn in your own final solution with the steps explained and developed in your own way!!! (Incidentally, it is not required to type your homework, but – if you do – it is appreciated. Illegible work may be returned for reduced or no credit).

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 15% 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.

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 The General Education Student Learning Outcomes above 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 homework and exams.

At the end of this course, successful students will be able to use the techniques of integral and differential calculus 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 concepts to other disciplines