Syllabus for HONS 158 Honors Physics II (Section I) – Spring 2016

Class Times/Location: MWF, 10:30 AM - 11:20 AM, Harbor Walk West Room 110

Instructor Information: Dr. Mike Larsen

Office Phone: 843-953-2128

Email address: LarsenML@cofc.edu

Office Hours: Monday 9:30-10:30 AM (HWWE 106/209); Tuesday 12:30-1:30 PM (JC Long 217); Friday 9:30-10:30 AM (HWWE 106/209). 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).

Office Location: JC Long 217. Since our classes are at the Harbor Walk facility, I am also holding some of my office hours in Harbor Walk West. See above for details.

Course Webpage: http://larsenml.people.cofc.edu/hons158_spr16.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 Extended 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 e-text 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 chapters 21-44, though there are a few chapters we might have to skip entirely. 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:

Monday, April 25th, from 8:00-11:00 AM

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: Wednesday, February 10th (4:40-7:40 PM)

Wednesday, March 16th (4:40-7:40 PM)

Wednesday, April 6th (4:40-7:40 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 and (potentially) quizzes (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.

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:

| | | | | | | | | | 60 - 69 |
|----|----|---|-------|----|----|----|----|---|---------|
| A- | 90 | В | 81-88 | C+ | 79 | C- | 70 | F | < 60 |

General Education Student Learning Outcomes

(These Student Learning Outcomes must be explicitly assessed in the second semester of this two semester sequence. Your assessment for these outcomes will be carried out in the lab affiliated with this course.)

- Students apply physical/natural principles to analyze and solve problems. This outcome will be assessed by writing a summary report of one of the labs during the spring session. It will count as 5% of the final lab grade.
- Students explain how science impacts society. This outcome will be assessed with an assignment requiring the student to relate a lab topic to their area of study. It will count as 5% of the final lab grade.

Student Learning Outcomes

At the end of this course, successful students will be able to use the techniques and principles of integral and differential calculus to:

- apply conservation laws to analyze the motion of charges in electric and magnetic fields.
- describe the nature of electromagnetic phenomena.
- apply elementary physical and geometrical optics principles.
- describe the nature of the universe on the atomic and nuclear scale.
- describe the postulates of special relativity and their fundamental consequences.
- develop critical thinking and problem solving skills.
- demonstrate the ability to relate Physics concepts to other disciplines.