COLLEGE PHYSICS I – FALL 2018 SYLLABUS

(Syllabus is subject to change; last edited 08/27/18)

TEXTBOOK: ***PHYSICS FOR SCIENTISTS AND ENGINEERS WITH MODERN PHYSICS***
by Serway and Jewett (10th edition)
WebAssign is required for this course. Information about options for purchasing the textbook and WebAssign access are included at the end of the syllabus.

CLASS TIME MWF 9:05 am – 10:00 am; Braunstein 300

TEACHING TEAM

Instructor	**Dr. Alexandru Maries**
Office	437 Geo/Phys
Telephone	513-556-0547
Office hours	Tu/Th 3:30 – 5:00 pm, and by appointment
email	mariesau@ucmail.uc.edu
Teaching Assistant	**TBD**
Office hours	
email	
Learning Assistant	**Sara Carl**
Office hours	TBD
email	carlse@mail.uc.edu

LABORATORY The laboratory course is a separate course with its own procedures, grading policy, etc. Note that lab is its own 1 credit course and doesn't impact your lecture grade.

RECITATIONS **Recitations will start during the second week of classes.** All recitation classes will use worksheets posted on Blackboard in the "Recitation" folder/tab on the left side in the Blackboard Meta Course. Students must print these sheets and bring to recitation each week. Attending recitation and completing the homework count towards the grade for this course.

EXAMS: This course will have three one-hour examinations and a final exam given during finals' week. The three one-hour exams will be given on: **Friday, September 28; Friday, October 26, and Friday, November 16, from 5:00-6:00 PM. Note the exam times are different from regular class time! All exams will take place in Braunstein 300 (regular class room).** The time and place for the final exam will be announced later in the semester. The exams will consist of problems and questions similar to the homework problems, examples from the text, recitation exercises, and problems and questions discussed in class.

MAKE-UP POLICY: If you have to miss an exam for a serious medical reason or you are a student athlete who is representing the university in a collegiate competition on the date of the exam, you will be permitted to take a make-up exam. If you miss an exam for any other valid reason (only with the approval of your lecture Professor who must be notified no later than a week before the midterm) the missing midterm grade will be replaced by your percentage grade on the final exam.

CLICKERS / CLASS PARTICIPATION / QUIZZES Each class, you will answer multiple choice questions using personal response devices called clickers (from Turning Point). You will be given 80% for answering the questions and 100% if you answer them correctly (if you forget your clicker in a particular day, you will get 80% for the questions on that day, but must let me know before the end of class). You will often work in groups on physics problems, which will sometimes be graded. Individual quizzes will also be given at different times during the semester. All of these will comprise your overall class participation which will count towards your lecture grade for the course. **YOU DO NOT NEED TO REGISTER YOUR CLICKER, just google "Turning point clicker" and buy the cheapest one you can find. It does not need to have a screen, just multiple choices 1/A, 2/B, … 9/E.**

HOMEWORK PROBLEMS

Students will be required to complete homework assignments from **Enhanced WebAssign,** a web-based homework system. Check the WebAssign website for the scheduled assignments. Students will also be required to submit **written solutions** of all their homework problems to their recitation TAs. The homework score will be 10 points for completing the online homework and 5 points for submitting written solutions.

COURSE NETWORKING

This course will use a social platform called Course Networking. This is similar to facebook – you create an account (for free) post a profile picture, post links, comment, like etc. After you create an account, look up the course "College Physics 1" and join it. In order to join it, you will need a pin, which is 4522. In this course page, I will post instructional videos **that you are required to view before each class.** I will also tell you what sections of the textbook you should read before each class. You are strongly encouraged to post questions, especially related to the content of the videos, or of the reading and respond to each other's questions. I and the TA/LA will monitor the course site and learn what common concepts are difficult to grasp from the videos which will help inform what I do in every class.
Your participation in the course networking platform will be tracked via "anar" seeds. You will get these by posting and answering questions, posting comments, liking etc. The seeds will be used to give you an additional 2% bonus in the class (based on how many seeds you get).

CONDUCT

Computers, tablets and cell phones are not allowed in the class. The only exception is if you are using them to take **handwritten** notes.
The University Rules, including the Student Code of Conduct, and other documented policies of the department, college, and university related to academic integrity will be enforced. Any violation of these regulations, including acts of plagiarism or cheating, will be dealt with on an individual basis according to the severity of the misconduct. See Academic Misconduct on the UC page.

WITHDRAWAL

The last day to withdraw and receive a grade of **"W"** with the instructor's signature is **November 16th.** See Fall 2016 Dates and Deadlines Calendar.

GRADING

The course grading will be determined using the following weights
Prelecture assignments: 50 points
Class participation: 200 points
Three hour exams: 100 points each
Final exam: 200 points
Recitation attendance: 50 points
Recitation homework: 100 points
WebAssign homework: 150 points (100 for completing online homework, 50 for written solutions
Total course: 1050 points
(The bonus obtained via the anar seeds will be added on top of everything else, so you can potentially obtain 1071 points, or 102% in the course).

Grade Distribution: Letter grades for the course will be assigned using the following guidelines:

100% - 90%:	**A**	90% - 75%:	**B**	75% - 60%:	**C**
60% - 50%:	**D**	<50%:	**F**		

These guidelines could be lowered depending on the class averages, but will never be raised. Note that these guidelines do not include grades like A-, B+ etc., but it is understood that those grades will be awarded. This implies that, for example, an overall course performance of 88% may be awarded a B+, while another of 78% may be awarded an B-.

HELPFUL ADVICE

0) COMPLETE ALL weekly reading assignments and/or watch the videos BEFORE EVERY CLASS.

1) Take notes while watching the instructional videos/reading so that you have something to use in class during the clicker questions and problems.

2) Find at least one "partner" in the class with whom you can meet regularly each week to discuss materials from the lectures and the homework.

3) Take the homework assignment seriously. Do not try to do the whole assignment the night before it is due.

4) Attend your professor's and TAs' office hours as much as you can. The point of the office hours is NOT to help you when you are lost, but to ensure that you are understanding the material to the level that you need. You should NOT wait until you are lost to come to office hours.

STUDY RESOURCES

In addition to the instructor and TA office hours, the following are additional resources that you are strongly encouraged to use.

MASS Center

The MASS (Math and Science Support) Center offers tutoring for physics courses (in addition to math and others). You can drop by anytime there is a tutor available. A schedule is available online (this will soon be updated for the fall term).

Physics Learning Center

Located in 302/303 Geo-Phys, the physics learning center is staffed by graduate students and undergraduate TAs every day from 9 am to 4 pm. You can drop in any time without an appointment and ask any questions related to the physics that you are learning (including homework questions). A schedule may be found on the physics department website under Academic Resources -> Physics Learning Center. (The schedule has not yet been updated for the fall, but will be soon).

Learning Assistance Center (LAC)

Located in French Hall West, Suite 2441, the LAC offers one-on-one tutoring for this course. You can schedule an appointment to improve your understanding of the course content as well as develop effective study strategies. To schedule an appointment or learn more about what the LAC has to offer, visit: http://www.uc.edu/aess/lac.html

TENTATIVE SCHEDULE		
Monday	**Wednesday**	**Friday**
8/27 Intro, pre-test, writing assignment	**8/29** Ch. 1 Physics and measurement	**8/31** Ch. 2 Motion in One Dimension
9/3 **NO CLASS – LABOR DAY**	**9/5** Ch. 2 Motion in One Dimension	**9/7** Ch. 3 Vectors
9/10 Ch. 3 Vectors	**9/12** Ch. 4 Motion in Two Dimensions	**9/14** Ch. 4 Motion in Two Dimensions
9/17 Ch. 4 Motion in Two Dimensions	**9/19** Ch. 5 The Laws of Motion	**9/21** Ch. 5 The Laws of Motion
9/24 Ch. 5 The Laws of Motion	**9/26** Ch. 5 The Laws of Motion	**9/28 – Exam 1** Ch. 6 Circular Motion
10/1 Ch. 6 Circular Motion	**10/3** Ch. 7 Energy of a System	**10/5** Ch. 7 Energy of a System
10/8 Ch. 8 Conservation of Energy	**10/10** Ch. 8 Conservation of Energy	**10/12** **NO CLASS – Reading Day**
10/15 Ch. 8 Conservation of Energy	**10/17** Ch. 9 Momentum and Collisions	**10/19** Ch. 9 Momentum and Collisions
10/22 Ch. 9 Momentum and Collisions	**10/24** Ch. 10 Rotation of Rigid Body	**10/26 – Exam 2** Ch. 10 Rotation of Rigid Body
10/29 Ch. 11 Angular Momentum	**10/31** Ch. 11 Angular Momentum	**11/2** Ch. 12 Static Equilibrium & Elasticity
11/5 Ch. 12 Static Equilibrium & Elasticity	**11/7** Ch. 12 Static Equilibrium & Elasticity	**11/9** Ch. 14 Fluid Mechanics
11/12 **NO CLASS – VETERANS DAY**	**11/14** Ch. 14 Fluid Mechanics	**11/16 – Exam 3** Ch. 19 Temperature
11/19 Ch. 20 First Law of Thermo	**11/21** Ch. 20 First Law of Thermo	**11/23** **NO CLASS – Thanksgiving**
11/26 Ch. 20 First Law of Thermo	**11/28** Ch. 21 Kinetic Theory of Gases	**11/30** Ch. 21 Kinetic Theory of Gases
12/3 Ch. 22 Heat Engines, Entropy and 2nd Law of Thermo	**12/5** Ch. 22 Heat Engines, Entropy and 2nd Law of Thermo	**12/7** Ch. 22 Heat Engines, Entropy and 2nd Law of Thermo

Options for purchasing the textbook and WebAssign access.

Starting this fall, Cengage offers the option of "Cengage unlimited" which gives you access to ALL courses which use a Cengage product. If you are taking Calculus this fall (which uses Cengage), purchasing Cengage unlimited will give you access to **both** Physics and Calculus. You can purchase this by following the link to WebAssign from blackboard, and then following the instructions in the "WebAssign student quick start guide" posted under "Syllabus and WebAssign info" on blackboard. Note that everything below can also be purchased at the UC bookstore.

Important note: WebAssign access also gives you access to an electronic copy of the textbook!

1. One term access to Cengage Unlimited (ISBN 9780357016237) **(cost $119.99)**: Use this if you are planning to take PHYS2001 and PHYS2002. It does not matter when you take PHYS2002. If you are taking Calculus, this will give you access to that as well You do NOT need to purchase two term access to take the PHYS2001-PHYS2002 sequence!
2. Two term access to Cengage Unlimited (ISBN 9780357700013): **(cost $179.99)** Use this if you are taking PHYS2001 and PHYS2002 (does not matter when), and Calculus (or another course from the Cengage Unlimited list posted on blackboard) in the spring.
3. For a physical copy of the textbook you can:
    a. Rent one from Cengage for $7.99 plus shipping.
    b. Get a loose leaf cover from Cengage **(cost around $46).**
4. You also have an option to only purchase a standalone WebAssign access (i.e., not unlimited), but this is only cost-effective if you only take PHYS2001. You would only need a one term access, which costs $100.