UNIVERSITY PHYSICS I
Term: Summer 1 2020
Course: PHYS-2425-45701 (1275735)
Course Dates: 6/4/2020 - 7/1/2020

Instructor: Carol Kruckenberg
Email: CarolKruckenberg@dccc.edu
Phone: 972-325-6427
Office & Office Hours: By appointment

Census Date: June 8, 2020
Course Drop Date: June 24, 2020
Disclaimer: The instructor reserves the right to amend this syllabus as necessary.
Institutional Policies: Eastfield College Institutional Policies (www.eastfieldcollege.edu/syllabipolicies)

COURSE DESCRIPTION:
The first semester of calculus - based physics sequence for science, computer science, and engineering majors. The principles and applications of classical mechanics, including harmonic motion, physical systems and thermodynamics are studied with emphasis on problem solving. Performance of basic laboratory experiments supporting theoretical physics principles and applications of classical mechanics, including harmonic motion, physical systems and thermodynamics. Laboratory experiments supporting the topics are included. This is an online class. Both the lecture and the lab are online.

Prerequisite Required: MATH 2413. College level ready in Reading.

TIME & PLACE:
Online

TEXTBOOK & MATERIALS:
• University Physics with Modern Physics 15 edition by Young (hard copy optional), PLUS MasteringPhysics online access code ISBN: 9780135205914

STUDENT LEARNING OUTCOMES:
Upon successful completion of the course, the students will:
➢ Convert units by using conversion factors and unit analysis
➢ Distinguish between vector and scalar quantities
➢ Use the equations of motion with constant acceleration in one and two dimensions
➢ State Newton’s laws of motion and the law of universal gravitation
➢ Resolve vector diagrams on static and dynamical systems.
➢ Define and use the concepts of energy and momentum
➢ Use the equations of angular motion with constant angular acceleration.
➢ Define and use the concepts of pressure, density, and the ideal gas law.
➢ Define and use the concepts of density, pressure exerted by a fluid, and the buoyant force.
➢ Define and use the first and second laws of thermodynamics.

HOMEWORK

There will be homework every week. You will turn in the homework using the MasteringPhysics, an online homework system. A brief MasteringPhysics user guide is attached along with this syllabus and also posted on eCampus for reference. Each homework will usually be a combination of conceptual and quantitative problems relating to the material from the previous weeks in class. Over the course of the semester the homework will amount to 20% of the grade.

It is important to complete the homework to obtain a good understanding of the material covered (and to practice so you can do well on the exams). You are encouraged to work with others on the homework. However, you are discouraged from letting others do the work and then copying what they did, or you doing the work and letting others copy. The instructor has observed that for the most part successful students pay particular attention to the assigned homework and devote considerable effort to it. Feel free to visit the Instructor whenever you may need assistance with the homework.

VIRTUAL CLASSROOM

Virtual Classroom link on eCampus course page allows you to participate in course related discussions online, at any time of the day or night, with no need for the participants to be logged into the site at the same time. The discussion is recorded on the course site for all to review and respond at their convenience. Feel free to post your questions in this forum. Anyone in class can respond to the questions or create new threads. If you have any questions for the instructor, please also email at CarolKruckenberg@dcccd.edu and I will respond back with 24 hours during the working days (Monday through Friday).

Please post your short introduction, your name, your major and (optionally) anything else about yourself that you would like to share with the rest of the class, in the thread Introductions under Virtual Classroom by 5:00PM on Monday June 8th. This introduction will count towards your class attendance for financial aid purposes and is also worth 1% extra credit.

LAB

All the labs will be done online. Lab handouts will be posted on eCampus. Once you have completed the lab, you will submit your answers to the questions included in the lab handout via eCampus. Lab is worth 20% of the grade. If you have any difficulty completing any of the labs, please email the instructor for help. You will get a reply within 24 hours during the normal working days.

LAB GRADE: This course satisfies the core curriculum requirement for scientific discovery and sustainability. A minimum lab average of 60 is required in order to pass the course. If your lab average is below 60, regardless of your course average, your course grade will be changed to be equal to your lab average.
COURSE SCHEDULE: See eCampus for suggested weekly schedule of course topics, labs and exams.

LATE WORK POLICY: If you are not able to finish homework on time due to some emergency/illness, contact the instructor as soon as you can, and the instructor may give you extra time to complete the homework. Late homework within 48 hours of the due date will be penalized up to 30%. Late homework will not be accepted after 48 hours. Final grade is FINAL, no work may be handed in after the final exam.

EXAMS: There will be three exams. All exams will be counted. Exams will be available only from 12AM to 11:59PM on the date the calendar shows. The exams will be on Mastering Physics.

Note: Make-up exams are not given except when a College acceptable excuse (i.e. illness warranting a physician’s care, death in the immediate family, religious absences, and sanctioned college athlete’s events) is supplied with documentation prior to the exam. Final grade is FINAL, no work may be handed in for additional credit after the final exam.

Code of Conduct: Any behavior which is disruptive to the classroom will not be tolerated and will result in being asked to leave the classroom.

GRADING

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<tr>
<th>Course Component</th>
<th>% Value</th>
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<tbody>
<tr>
<td>Lab</td>
<td>20%</td>
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<tr>
<td>Homework</td>
<td>20%</td>
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<tr>
<td>Midterm Exam I</td>
<td>20%</td>
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<tr>
<td>Midterm Exam II</td>
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<tr>
<td>Final Exam</td>
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<tr>
<td>Total</td>
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GRADING SCALE

A: 90 – 100    B: 80 – 90    C: 70 – 80    D: 60 – 70

A grade of F will be assigned to anyone who has below a 60% OR to anyone caught cheating in this course.

Having trouble? Your professor should be your first line of defense when you are having trouble. Other resources include:

- your classmates (form a study group!)
- the Tutoring Center.

ACADEMIC INTEGRITY AND PLAGIARISM

Scholastic dishonesty, also known as academic dishonesty or misconduct, is the defined by the DCCCD Student Code of Conduct as acting in an unethical, dishonest manner. It includes, but is not limited to: cheating; plagiarism; falsifying or fabricating information; misrepresentation; facilitating scholastic dishonesty; and collusion.

Potential Consequences: DCCCD takes acts of scholastic dishonesty very seriously. Students who commit these offenses could: fail the assignment; fail the course; and/or be suspended or expelled from the college.
MasteringPhysics User Guide

First, make sure you have these 3 things...

Email: You'll get some important emails from your instructor at this address.

Course ID: The Course ID is: SUIKRUCKENBERG

Access code or credit card: An access code card may be packaged with your new book or may be sold by itself at your bookstore. Otherwise, you can buy instant access with a credit card or PayPal account during registration.

Next, get registered and join your course!

2. Under Register Now, select Student.
3. Confirm you have the information needed, then select OK! Register now.
4. Enter your instructor’s Course ID (for this course it is: SUIKRUCKENBERG), and choose Continue.
5. Enter your existing Pearson account username and password and select Sign in. You have an account if you have ever used a Pearson MyLab & Mastering product, such as MyMathLab, MyITLab, MySpanishLab, or MasteringChemistry.
   ➢ If you don’t have an account, select Create and complete the required fields.
6. Select an access option.
   ➢ Enter the access code that came with your textbook or was purchased separately from the bookstore.
   ➢ Buy access using a credit card or PayPal account.
7. From the “You’re Done!” page, select Go to My Courses.
8. Select Yes and enter your Course ID to join your course. Click Continue.
9. If asked, enter your Student ID according to the instructions provided and click Continue.
That’s it! You should see the Course Home page for the course.

To sign in later:

1. Go to www.masteringphysics.com and select Sign In.
2. Enter your Pearson account username and password from registration, and select Sign In.

If you forgot your username or password, select Forgot your username or password?