University Physics I
PHYS –2425- 65310
Summer 2018
6/6/19 – 7/8/19

Professor:
Dr. Victor Weir
Email: vxw6480@dcccd.edu
Telephone number:
Office Number: W16
Credit Hours: 4
Office Hours: by appointment
Meeting Days & Time:

Online hybrid course (Lecture online, Lab in Class)

Lab days MTWR : 6:00pm- 8:30pm

Physics classroom and lab: W16

Division: SNAP, Ms. Eva Perez
Office Hours: 8:00AM-5:00PM
Office Phone: (214)860-8649
Office Location: H129

Summer Academic Semester, 2019

Summer I:
(Summer I includes classes meeting on the following Fridays -- June 7, 14, 21, and 28 as class days.)

May 27 (M) Memorial Day Holiday
June 6 (R) Classes Begin
June 10 (M) 4th Class Day
June 25 (T) Last Day to Withdraw
July 3 (W) Final Exams/Summer I Ends
July 4 (R)  Fourth of July Holiday
July 8 (M)  Last Day for faculty to submit grades electronically through eConnect to the Registrar's Office.

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**Course Description (Lecture)** The first semester of a calculus-based physics sequence for science, computer science, and engineering majors. Topics include classical mechanics, harmonic motion and thermodynamics with emphasis on problem solving. Laboratory experiments supporting the topics are required. (3 Lec., 3 Lab.)

**Course description (Lab.):**

**Course Pre-requisites:** MATH 2413 or concurrent enrollment in MATH 2413. DREA 0093 or English as a Second Language (ESOL) 0044 or have met the Texas Success Initiative (TSI) standard in Reading.

**Course Materials/Supplies Needed**

*Physics for Scientists and Engineers with Modern Physics Knight 4e*

Please buy MasteringPhysics with eText --

Randall D. Knight, *California Polytechnic State University-San Luis Obispo*

You are required to purchase the full access key to Mastering physics for the 4th edition of the textbook.

♥**Important Step:**
Enroll your name immediately after you have purchased the full access key in the following class on “MasteringPhysics.com” The course details are below

**University Physics I (Weir Summer 2019)**

Course ID is = MPWEIR6051631

**Core Objectives:**

**Critical Thinking Skills** - to include creative thinking, innovation, inquiry, and analysis, evaluation and synthesis of information
**Communication Skills** - to include effective development, interpretation and expression of ideas through written, oral and visual communication

**Empirical and Quantitative Skills** - to include the manipulation and analysis of numerical data or observable facts resulting in informed conclusions

**Teamwork** - to include the ability to consider different points of view and to work effectively with others to support a shared purpose or goal

Core objective assignments and measurements:

**Assignment and measurement for the core objectives:**

**Critical thinking:** Students will work on a project throughout the semester. They will keep a journal of the steps and procedures that they follow. They will use these journals to create a final report on their project. The AACU Critical Thinking VALUE Rubric will be used for the evaluation of the assignment.

**Empirical and quantitative skills:** Students will use physics concepts, mathematical equations, graphs, and calculations to create the assigned project. They will modify and troubleshoot their project in order to reach a presentable and workable product. The final reports will reflect the students' experiences of the course. The evaluation will be based on a modified version of the AACU Quantitative Literacy VALUE Rubric; modification of the rubric will reflect the nature of the assignment.

**Communication:** Students will use PowerPoint software to present their project to their classmates. Internet-based students will record their presentations and will post them on a designated media service. The AACU Written Communication Rubric and Visual Rubric will be used.

**Teamwork:** Students will work in groups throughout the semester. Each student will evaluate her or his own work by explaining how she or he contributed to team meetings, facilitated the contributions of team members, and performed work individually outside of team meetings. The AACU Teamwork VALUE Rubric will be adopted and modified for the evaluation

**Student Learning Outcomes (Lecture):**

**Upon successful completion of this course, students will:**

1. Determine the components of linear motion (displacement, velocity, and acceleration), and especially motion under conditions of constant acceleration.
2. Solve problems involving forces and work.
3. Apply Newton’s laws to physical problems.
4. Identify the different types of energy.
5. Solve problems using principles of conservation of energy.
6. Define the principles of impulse, momentum, and collisions.
7. Use principles of impulse and momentum to solve problems.
8. Determine the location of the center of mass and center of rotation for rigid bodies in motion.
9. Discuss rotational kinematics and dynamics and the relationship between linear and rotational motion.
10. Solve problems involving rotational and linear motion.
11. Define equilibrium, including the different types of equilibrium.
12. Discuss simple harmonic motion and its application to real-world problems.
13. Solve problems involving the First and Second Laws of Thermodynamics.

Student Learning Outcomes (Lab):
Upon successful completion of this course, students will:

1. Prepare laboratory reports that clearly communicate experimental information in a logical and scientific manner.
2. Conduct basic laboratory experiments involving classical mechanics.
3. Relate physical observations and measurements involving classical mechanics to theoretical principles.
4. Evaluate the accuracy of physical measurements and the potential sources of error in the measurements.
5. Design fundamental experiments involving principles of classical mechanics.
6. Identify appropriate sources of information for conducting laboratory experiments involving classical mechanics.

Course Outline:
Newton’s Laws
Conservation laws
Applications of Newtonian Mechanics
Thermodynamics (tentative)
The Waves models and Traveling Waves (tentative)

Evaluation Procedures:
1- Exams = 60 %
2- Labs = 20 %
3- Homework and class work assignments = 20% 
4- Extra Credit: 0-10 points – Extra curriculum activities

Grading Scale:
A=100- 90
B= 89 - 80
C= 79 - 70
D= 69 - 60
F= 59 - below

Instructor Attendance Policy:
Students are expected to attend all classes. Students have the responsibility to attend class and to consult with the instructor when an absence occurs. If for some reason you must
leave class early, you should inform the instructor prior to the start of class of your reason for leaving early.

Students must begin attendance in all classes of enrollment. No exceptions. Financial Aid will not be granted to students who have been certified as not attending, by the certification date. For this lecture course, your physical participation in class, on or before the certification date will allow you to receive credit for FA purposes. For certification dates, check with the division or FAO for further information. Students, who are not certified as beginning class, are responsible for any payments due as a result of non-certification, to include the dropping of courses.

Late Work Policy:
1-All the due dates will be posted on ecampus and Mastering Physics(MP).
2-You can make up one lab session without penalty. You may do the makeup lab during the last week of the semester. This is at Lab instructors discretion.
3- For HW assignments on MP you may be penalized 3% per late day.

Makeup Exam Policy:
There will be no late exam – In rare occasion you will be able to make up the exam only if you present the required and valid documentation.

Electronic Devices:
You will be able to use ipads and computer in the classroom and in the labs.
You are allowed to use your own electronic devices in the laboratory only for physics assignments.

Responsibility of College Learner:
As a student in this college course, it is your responsibility to have necessary course materials and to locate a computer with reliable internet access. Computer and internet issues/problems not associated with the eCampus and Mastering websites, technical issues or downtime will not be considered exceptions to the late work and makeup exam policies. It is also your responsibility to have the necessary course materials to complete the assignments. You will not receive extensions on assignments or tests due to financial issues, not receiving mastering physics by the start of class, or personal computer issues. Please plan ahead and do not wait until the last minute to complete assignments or tests.

Certification Procedures:
Students must begin attendance in all classes of enrollment. No exceptions. Financial Aid will not be granted to students who have been certified as not attending, by the certification date. For this lecture course, your physical participation in class, on or before the certification date will allow you to receive credit for FA purposes. For certification dates, check with the division or FAO for further information. Students, who are not certified as beginning class, are responsible for any payments due as a result of non-certification, to include the dropping of courses.
Electronic Devices:
You will be able to use ipads and computer in the labs.
You are allowed to use your own electronic devices in the physics area only for physics assignments.

The withdraw date for this class is __6/25/19__.

Academic Dishonesty:
Students that caught plagiarizing an assignment will be subject to an “F” in the course and possible expulsion from the college.

Academic honesty is expected, and integrity is valued in the Dallas County Community Colleges. Scholastic dishonesty is a violation of the Code of Student Conduct. Scholastic dishonesty includes, but is not limited to, cheating on a test, plagiarism, and collusion. As a college student, you are considered a responsible adult. Your enrollment indicates acceptance of the DCCCD Code of Student Conduct published in the DCCCD Catalog. More information is available at https://www1.dcccd.edu/catalog/ss/code.cfm.

Institution Policies: Please visit http://www.mountainviewcollege.edu/... for a complete list of institutional policies (Stop Before You Drop; Withdrawal Policy; Repeating a Course; Financial Aid; Academic Honesty; Americans with Disabilities Act Statement; Religious Holidays; and Campus Emergency Operation Plan and Contingency Plan.).

The course will cover approximately chapter 1 to 15 of the text, with additional topics selected from other chapters added when convenient

Week 1 Lec Videos, 1, 2 &3
Week 2 Lec Videos, 4, 5 &6, Exam 1
Week 3 Lec Videos, 7, 8 &9, Exam 2
Week 4 Lec Videos, 10, 11 &12, Exam 3
Week 5 Lec Videos, 13, 14 &15 (Final TBD)
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<tr>
<th>Institutional Policies</th>
<th>Mountain View College Syllabi Information</th>
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<tr>
<td><strong>Stop Before You Drop</strong></td>
<td>For students who enrolled in college level courses for the first time in the Fall of 2007, Texas Education Code 51.907 limits the number of courses a student may drop. You may drop no more than 6 courses during your entire undergraduate career, unless the drop qualifies as an exception. Your campus counseling/advising center will give you more information on the allowable exceptions. Remember that once you have accumulated 6 non-exempt drops, you cannot drop any other courses with a “W.” Therefore, please exercise caution when dropping courses in any Texas Public Institution of higher learning, including all seven of the Dallas County Community Colleges. For more information, you may access: <a href="https://econnect.dcccd.edu/eConnect/droppingfacts.html">https://econnect.dcccd.edu/eConnect/droppingfacts.html</a></td>
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<td><strong>Withdraw Policy</strong></td>
<td>If you are unable to complete this course, it is your responsibility to withdraw formally. The withdrawal request must be received in the Registrar’s Office by the official drop date for this course (see Course Drop Date mentioned earlier in this syllabus). Failure to do so will result in your receiving a performance grade, usually an “F.” If you drop a class or withdraw from the college before the official drop/withdrawal deadline, you will receive a “W” (Withdraw) in each class dropped.</td>
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<td><strong>Repeating a Course</strong></td>
<td>Effective for Fall Semester 2005, the Dallas County Community Colleges will charge additional tuition to students registering the third or subsequent time for a course. This class may not be repeated for the third or subsequent time without paying the additional tuition. Third attempts include courses taken at any of the Dallas County Community Colleges since the Fall 2002 semester. More information is available at: <a href="http://www.dcccd.edu/pc/cost/3rdcrseattmpt/Pages/default.aspx">http://www.dcccd.edu/pc/cost/3rdcrseattmpt/Pages/default.aspx</a></td>
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<td><strong>Financial Aid</strong></td>
<td>Financial Aid will not be granted to students who have been certified as not attending by the certification date. In lecture classes, students must attend class prior to the certification date. Online students should follow the certification procedures as noted within the class syllabus. For certification dates, check with the division or FAO for further information. Students, who are not certified as beginning class, are responsible for any payments due as a result of non-certification, to include the dropping of courses. Students who are receiving any form of financial aid should check with the Financial Aid Office prior to withdrawing from classes. Withdrawals may affect your eligibility to receive further aid and could cause you to be in a position of repayment for the current semester. Students who fail to attend or participate after the drop date are also subject to this policy. If you are receiving financial aid grants or loans, you must begin attendance in all classes. Do not drop or stop attending any class without consulting the Financial Aid Office. Changes in your enrollment level and failing grades may require that you repay financial aid funds.</td>
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<td><strong>Academic Dishonesty</strong></td>
<td>Mountain View College and the Office of Special Services are committed to upholding the laws and the spirit of Section 504 of the Rehabilitation Act of 1973 and the Americans with Disabilities Act (ADA) signed in 1990.</td>
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<td>Religious Holidays</td>
<td>Absences for observance of a religious holy day are excused. A student whose absence is excused to observe a religious holy day is allowed to take a make-up examination or complete an assignment within a reasonable time after the absence.</td>
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| Campus Emergency Operation Plan and Contingency Plan. | Mountain View College has developed policies and procedures for dealing with emergencies that may occur on campus. A synopsis of emergency procedures can be found at: [http://www.mountainviewcollege.edu/business/police/Pages/emergencyprocedureenglish.aspx](http://www.mountainviewcollege.edu/business/police/Pages/emergencyprocedureenglish.aspx).  

**Contingency Plan:** Mountain View College has developed an Instructional Contingency Plan for Temporary College Closing for On-Campus Courses. Please discuss this contingency plan with your instructor. For distance learning courses, your instructor will use email to contact students in the event of extended technology downtime. To assure work in the class continues, it is important for all students to have an accurate email address recorded in both eCampus and eConnect. |
| Disclaimer Reserving Right to Change Syllabus | The instructor reserves the right to amend a syllabus as necessary. |