College Physics I

Professor: Wilfred Hok Kong LEE, Ph.D.

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Contact Info:
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Office Hours:

Mon	11:45 – 1:15
Wed	11:45 – 1:15
Thu	11:45 – 12:45

Important Dates:

Last Day to Add	Feb 10
Last day to drop without a W	Feb 10
Last day to drop and receive a W	Apr 27

Misc Info:

WebAssign class key:		**swccd 2941 9318**
Midterm	Ch 1-6	Apr 3 (Wed, may change)
Final	Ch 1-8, 10-13, 15	May 20 (Mon) 8:10 – 10:10

Textbooks:
Required: *Principles of Physics with WebAssign (5th edition), by Serway and Jewett, Published By Brooks/Cole*

Course Homepage:
The main course website will be http:/dept.swccd.edu/hlee, where you will find the syllabus, lecture notes, and tutorial videos and homework solutions.

Homework (WebAssign):
For homework we will be using the WebAssign program online http://www.webassign.net/. You have up to 4 attempts per question. Your work will be graded automatically and posted online. Detail for how to log onto WebAssign is in a separate handout. Class key for this semester is listed above, you will need this when you log in for the first time.

As of Jan 2018, the cost for the WebAssign + eBook access code is about $125 for multi-term "Life of Edition" (LOE) access. The access code is good for any courses that use the same edition of the textbook. For single term access (not LOE) it is $100. The price may vary from year to year.

Other Useful sites:
http://dept.swccd.edu/hlee (My SWC page)
http://www.webassign.net/ (WebAssign – Homework)
http://phet.colorado.edu/ (Physics Education Technology)

Prerequisite: MATH 121 or equivalent

Course Description:

3 Units. First of a three-semester, calculus-based sequence intended mainly for majors in the life sciences. Covers Newtonian mechanics and waves, basically Ch 1 -13, 15 of the textbook. See course outline below.

Course Objectives:

To prepare you to become a scientist and to get you one step closer to your degree. Passing this class indicates the ability to understand and apply the concepts in this course to various physics problems. Your performance will be measured based on the conceptual understanding as well as the ability to use mathematics to state and solve problems.

Tentative Course Outline:

Ch 1	Vectors
Ch 2	Motion in One Dimension
Ch 3	Motion in Two Dimensions
Ch 4	Newton's Laws of Motion
Ch 5	Application of Newton's Laws
Ch 6	Energy and Energy Transfer
Ch 7	Potential Energy
Ch 8	Momentum and Collisions
Ch 10	Rotational Motion
Ch 11	Gravity
Ch 12	Oscillatory Motion
Ch 13	Mechanical Waves
Ch 15	Fluid Mechanics

Grading:

Your final course letter grade will be based on your overall score. Individual letter grades will not be formally assigned to exams. Letter grade will be determined approximately as follows:

100 – 85%	A
84 – 75%	B
74 – 60%	C
59 – 50%	D
49 – 0%	F

Note that the above scale is only an approximation and may be revised near the end of the semester.

Evaluation:

The overall grade will be determined by your performance in the mid-term exam, final exam, quizzes and homework. They carry different weight in computing your overall grade, as summarized below:

Homework:	10%
Quizzes:	20%
Mid-term Exam:	30%
Final Exam:	40%

Homework:
Some of the homework problems will become questions on the exams. You will not know which homework questions will show up on an exam until you take the exam, so you must do all homework questions to properly prepare for the exams. Late homework will receive zero points. Being too busy is not an acceptable excuse for handing in homework late.

Quizzes:
There will be a quiz every two to three chapters. The exact time will be announced in advance. If you cannot make it to class you will receive zero points unless you contact me *in advance* to arrange for a make up quiz.

Mid-term and final exam:
Mid-term will cover roughly the materials from the first half of the course, while the final exam will cover the entire semester. Many of the exam questions will be from the homework problems, but I may include a few questions from elsewhere. If you cannot make it to the exams you will receive zero points unless you contact me *in advance* to arrange for a make up exam.

Student Learning Outcomes:

Students will analyze observations from different physical situations and recognize the underlying laws of physics that govern wide-ranging phenomena seen in nature.

Students will formulate and analyze physics problems mathematically by translating words into mathematical equations and find the quantitative solutions.

General Policy:

For information regarding attendance, classroom policy, misconduct and tutorial services please refer to the syllabus addendum on the course website.

Disclaimer:

The content of this syllabus or course outline may change during the semester. It is your responsibility to keep track of the changes.

College Physics meets standard scope and sequence requirements for a two-semester introductory algebra-based physics course. The text is grounded in real-world examples to help students grasp fundamental physics concepts. It requires knowledge of algebra and some trigonometry, but not calculus. College Physics includes learning objectives, concept questions, links to labs and simulations, and ample practice opportunities for traditional physics application problems. College Physics Answers offers screencast video solutions to end of chapter problems in the textbooks published by OpenStax titled "College Physics" and "College Physics for AP Courses". These textbooks are available for free by following the links below. Both the PDF and printed versions of these textbooks contain the same problems. The only difference is College Physics. 2 April Â·. Rings around the Moon are caused when moonlight passes through thin clouds of ice crystals high in Earth's atmosphere. As moonlight passes through the ice crystals, it is bent in a way similar to light passing through a lens. The shape of the ice crystals causes the moonlight to be focused into a ring. College Physics. 31 March Â·. Physics students now a days ðŸ¤ #StayHome_PlayGames ðŸ˜‚. College Physics. 30 March Â·. That's how #Corona_Virus spread around the globe from #1Feb to #24March. College Physics includes all the major topics for an introductory non-calculus-based classical physics course. There are also seven chapters covering topics in modern physics. read more. Reviewed by Chuck Crabtree, Director of STEM, Physics Instructor, Northshore Technical Community College (NTCC) on 4/22/19. Comprehensiveness rating: 5 see less. College Physics includes all the major topics for an introductory non-calculus-based classical physics course. Book Description: College Physics is organized such that topics are introduced conceptually with a steady progression to precise definitions and analytical applications. The analytical aspect (problem solving) is tied back to the conceptual before moving on to another topic. Each introductory chapter, for example, opens with an engaging photograph relevant to the subject of the chapter and interesting applications that are easy for most students to visualize.