College Physics I

PHYS - 2010 001

Course Description

For pre-professional, non-science, non-engineering majors. Newtons laws of motion, gravity, work and energy, solid body motion, fluid motion, vibrations and waves, and thermal physics. It is recommended that students take PHYS 2015 in the same semester as this course.

Prereq: MATH 1050

Semesters: All

Course Student Learning Outcomes

- Recognize and understand the following physics principles in their everyday lives: Newton's laws of motion, Gravity, Work and energy, Solid body motion, Fluid motion, Vibration and waves, Thermal physics.
- Think critically and solve physics problems.
- Gain a solid scientific foundation that will enable them to succeed in their professional programs.

Course Prerequisites

Prerequisite: MATH 1050

Recommended Corequisite: PHYS 2015

Engagement Plan

Our main communication mode will be the Canvas email inbox but don't hesitate to use the phone (801-918-3023) when necessary.

The communication mode of you come to class and then do the assignments in canvas and that's it you will probably have serious trouble. If you find yourself stuck get help from me. The cycle of student to instructor to student is essential for success.

Keys for Success (how to succeed in the course)

Physics takes time. Your instructor will have information about ways to study and answer questions and word problems that will help with the time problem and improve your grade. Pay attention to them!

Learning physics will likely require thinking and studying differently. Common sense is often a poor guide.

Your main mode of study should not be memorization. That said, you may have difficulty in releasing the memorization security blanket. That can take real courage.

Take good notes.

Ask questions relentlessly. You've paid for the right to do that so use it!

Mistakes are the friends that no one wants. Pay attention to yours People who pay attention to their mistakes get better at what they are doing.

Don't give up. Physics can be hard but it is not impossible. Persistence is highly underrated in Physics. Be stubborn.

Maintain a positive attitude. Be kind to yourself instead of being too critical! Most people who get a test score that is lower than they want are way too harsh on themselves.

Required Text or Materials

Title: College Physics: A Strategic Approach by Knight et al, 4th edition

ISBN: ISBN 13: 978-0-134-60903-4

Authors: Randall Knight, et al.

Publisher: Pearson

Publication Date: The ebook is available to you at no extra cost in the Mastering Physics

Module **Edition:** 4th

For more information on textbook accessibility, contact Accessibility & Disability Services at ads@slcc.edu.

Additional Materials

The determination to persevere through setbacks, be kind to yourself and \boldsymbol{ASK}

QUESTIONS.

Brief Description of Assignments/Exams

There will be 4 tests worth 100 points each..

Test 1: Chapters 1-4

Test 2: Chapters 5-8

Test 3: Chapters 9-12

Test 4: Chapters 13-16

There will be 16 chapter homeworks online (1 for each chapter each worth 10 points).

These chapter homeworks will be done in the Mastering Physics (MP) homework software associated with the online textbook and are available in the Mastering Physics module.

There will be some in class work and homework other than chapter homeworks and opportunities for extra credit.

Special Equations Test (SET):

At the end of the semester there will be a Special Equations Test. This test is optional. It consists of multiple choice questions about nothing but equations. This sounds like a

test from hell you never want to touch ever. In actuality it is a Physics Test that cannot hurt your grade and can improve it substantially and that's a rare critter.

Here's the deal: If your score on the Special Equations Test exceeds your lowest score on any of tests 1-3 I replace that test score with your SET score! If your SET score is lower than your lowest test score on tests 1-3 I do nothing.

There is absolutely no way to hurt your grade with the Special Equations Test!

Why do this? We do this because using elementary arithmetic

to learn from equations is a very easy and fast way to learn physics. you don't need to be afraid of equations.

I will teach you to do this equation analysis in class and with questions on the tests. You won't need to memorize equations as I give them to you and tell you what the equation variables are on the test itself

Assignment Schedule

Due Date	Assignment Name	Assignment Type	Points
	GROUP STUDY/HOMEWORK WITH ME	Discussion	0
	Introduce Yourself	Discussion	0
	Introduce Yourself	Discussion	0
9/4/25	Chapter 1 HW	Assignment	10
9/4/25	Introduction to MasteringPhysics	Assignment	5
9/4/25	Physics Primer	Assignment	10
9/7/25	<u>Chapter 2 HW</u>	Assignment	10
9/16/25	Chapter 3 HW	Assignment	10

Due Date	Assignment Name	Assignment Type	Points
9/16/25	<u>Chapter 4 HW</u>	Assignment	10
10/2/25	<u>Chapter 5 HW</u>	Assignment	10
10/2/25	Chapter 6 HW	Assignment	7.9
10/14/25	<u>Chapter 7 HW</u>	Assignment	10
10/14/25	Chapter 8 HW	Assignment	10
11/4/25	Chapter 10 HW	Assignment	10
11/4/25	Chapter 9 HW	Assignment	10
11/18/25	Chapter 11 HW	Assignment	9.4
11/18/25	<u>Chapter 12 HW</u>	Assignment	10
12/9/25	<u>Chapter 13 HW</u>	Assignment	10
12/9/25	<u>Chapter 14 HW</u>	Assignment	10
12/18/25	<u>Chapter 15 HW</u>	Assignment	10
12/18/25	<u>Chapter 16 HW</u>	Assignment	10

Grading Scale

A 93-100%	B+ 87-89%	C+ 77-79%	D+ 67-69%	E <59%
A- 90-92%	B 83-86%	C 73-76%	D 63-66%	
	B- 80-82%	C- 70-72%	D- 60-62%	

Academic Integrity

Cheating can result in an E for the semester and/or expulsion from class.

Institutional Policies

As members of our academic community, we would like to invite you to review the Institutional Syllabus which covers important policies and procedures. This document contains important links for students on the code of student rights and responsibilities, academic integrity, and grading policies, Title IX and other important acknowledgements. By familiarizing yourself with this information, you can help us create a safe and respectful environment for everyone.

For more information, navigate to the Institutional Policies tab on the <u>Institutional Syllabus</u> page.

Learning Support and Tutoring Services

We are pleased to offer a range of tutoring and learning support services to help you achieve your academic goals. Whether you need assistance with a specific subject or want to improve your study skills, you have many options for tutoring or other support.

To learn more about the services we offer and how to access them, visit the <u>Institutional Syllabus</u> page under the Tutoring and Learning Support tab. We encourage you to take advantage of these resources to help you succeed in your studies. If you have any questions or would like to schedule a tutoring session, please don't hesitate to reach out to us. We are here to support you in any way we can.

Advising and Counseling Support Services

At our institution, we are committed to supporting your academic and personal growth. That's why we offer a range of advising and counseling services to help you navigate the challenges of college life. To learn more about the resources available to you and how to access them, visit the <u>Institutional Syllabus</u> page under the Advising and Counseling Support Services tab. Our advising team and the support centers across campus are here to support you in achieving your goals and overcoming any obstacles you may face.

Student Academic Calendar

As students you should be aware of all important dates in the semester, such as the day that courses begin and end, as well as the drop date and the last day to withdraw. To learn more about those dates, navigate to the Student Academic Calendar below:

SLCC Student Academic Calendar