

Course, section, and term: Elementary Physics for Non-Science Majors (PHY1020.01, Spring 2023)

Instructor: Professor Erika G. Kisvarsanyi

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Office Hours: In office: M 10:30am-1:30pm; T 12:15pm-1:45pm; W 12:30pm – 1:30pm, 4pm – 5pm; Th 9:45am – 10:45am, 12:15pm-2:15pm; F 10:00am – 10:30am. In LRC: Thursday 2:15pm – 4:15pm

Text (required): *Conceptual Physics, 13th edition*, Hewitt, 2021 (ISBN: **9780135746264**)

Meeting Times: TH 11am – 12:15pm in Room 2-121

Course Description: This course provides a basic introduction to several traditional topics of classical physics. These include mechanics (the study of motion), heat, material properties, molecular and atomic structure, electricity and magnetism, wave motion (including light and sound), and optics. This course fulfills the general education science core requirement. GUARANTEED TRANSFER TO IN-STATE INSTITUTION OFFERING SAME COURSE. **Prerequisite:** One year of high school algebra or equivalent.

Minimum Technical Requirements

Students enrolled in this course must be able to:

- Access the internet
- Use all required features of Canvas
- Run HTML5 within a web browser for lab simulations
- Send, receive, and be able to work with Word or pdf document attachments by e-mail

Grading:

The Scale: A (90%-100%); B+ (87%-89.9%); B (80%-86.9%); C+ (77%-79.9%); C (70%-76.9%); D (60%-69.9%); F (Below 60%). This is the standard college-wide grading scale.

The Details:

There will be 5 tests taken during class covering multiple chapters each during the semester, but your low score on these tests will be dropped. Lab activities consist of selected simulations that will be done outside of class-time and which are available for free at [PhET: Free online physics, chemistry, biology, earth science and math simulations \(colorado.edu\)](https://phet.colorado.edu/). Two low scores will be dropped. There will be group work done during class-time that will also contribute to your grade. This course will also have a final exam given during finals week that cannot be dropped but will consist only of material completed after the last regular chapters test. ***There will be no make-ups for tests, lab activities or group work, and the grading scale is set in stone.*** For example, if you miss Test 2 for any reason, that will count as your low score and be the test score that is dropped. If you miss the due date/time for a lab activity, it will just be a drop. If you end up with a 79.9 at the end of the semester, I will not round up your grade to an 80%. (In extreme and rare cases, such as a major unexpected medical or legal emergency, making up SOME missed work, for example a second missed test, MAY be allowed with a valid, excused absence provided there is legitimate medical or legal documentation of the event. However, it is your responsibility to speak with me about the situation in a timely fashion. Waiting until weeks after a critical absence is unacceptable).

The Breakdown:

- 60% - 4 best of 5 in-class Chapter tests worth 15% each
- 15% - Group work (you must be in class to earn these)
- 10% - Lab activities done outside of class time using Phet simulations (two low scores dropped)
- 15% - Final in-class exam administered during finals week

Important note about ALL tests (including the final exam):

ONE (1, UNO, UN, EINS, EGY, ОДИН) HANDWRITTEN (YOUR handwriting), 8 ½ x 11 sheet of paper with notes, etc., may be used on all tests.

Dates of Interest:

Last day to drop a class and get a refund – Friday, January 13

MLK, Jr Birthday. No classes – Monday, January 16

College Planning Day. No day classes – Tuesday, February 14

Last day to withdraw with a ‘W’ – Friday, March 31

Spring Break. No classes - Monday, March 13 – Sunday, March 19

Last day of class for PHY1020 – Thursday, April 27

Final Exam for PHY1020 – Tuesday, May 2

Please turn off or silence your cell phones and any other electronic devices that could be disruptive to the class.

Attendance: The student is responsible for ALL information/material/assignments covered in class. Attendance is required for all tests/group work and NO make-up tests or group work will be given, however, some low scores are dropped (see above). Attendance, punctuality and class participation are all expected at the college level. Chronic lateness or early exits will also be considered as absences. If attendance, or lack thereof, becomes an issue, the student may be dropped from the course.

Instructional Objectives: Upon completion of this course, the following behaviors by the learner will indicate mastery of the knowledge and skills specified in the instruction:

1. To recognize and explain basic concepts of physics found in the topics covered
2. To demonstrate a basic vocabulary of physics including terms, units and notation
3. To interpret and solve basic algebra-based physics problems
4. To indicate knowledge of how a scientist conducts science and how the sciences are interrelated

College Policies

Academic Integrity – In order to preserve academic excellence and integrity, the College expects you to know, understand, and comply with the Code of Student Conduct, which prohibits academic dishonesty in any form, including, but not limited to, cheating and plagiarism. Cheating can be defined as: receiving or giving unauthorized assistance on a quiz, test, exam, paper, or project or unauthorized use of materials to complete such; collaborating with another person(s) without authorization on a quiz, test, exam, paper, or project; taking a quiz, test, or exam for someone else or allowing someone else to do the same for you. The grades you earn must be based upon your own work and must accurately reflect your own knowledge and skills. Cheating and/or plagiarism will not be tolerated and may result in an “FF” for the course as well as disciplinary action under the Code of Student Conduct. A student will be referred to an Academic Integrity Seminar. There will be a charge for this two-hour seminar, and attendance is required (see Student Handbook). Failure to attend the Academic Seminar may result in the assignment of a final course grade of “FF,” denoting course failure due to a violation of the college’s Academic Integrity policy.

Access Services for Students with Disabilities – If you have a disability, serious medical condition, a learning or psychological disorder and want to request accommodations, it is your responsibility to register with the Office of Access Services and to provide verifiable documentation to Access Services as soon as possible. If eligible, Access Services will provide you with a notification of approved accommodations to give to your instructors at the beginning of the semester. Faculty will comply with the accommodations approved by Access Services. For information visit the Access Services webpage at <http://www.cf.edu/departments/sa/ss/>, contact access@cf.edu or call 352-854-2322, ext. 1580 for an appointment.

Withdrawal – If you want to withdraw from this class, you must fill out the necessary forms and have them signed by the appropriate parties. If you just stop coming to class after the posted drop date, you may receive the grade of F. The college reserves the right to evaluate individual cases of non-attendance.

Students should be alerted to the fact that

- (1) withdrawals do not count in the CF GPA, but may not be viewed favorably at the university level or for financial aid
- (2) a withdrawal counts as an attempt under the forgiveness/withdrawal policy and the course repeat policy
- (3) there are increased costs to take the course on the third attempt
- (4) there may be a reason a withdrawal request may be denied.

Please see the College’s withdrawal procedures.

CF STUDENT ASSISTANCE PROGRAM- The CF Student Assistance Program (SAP) is a confidential resource for assisting students who may have personal problems which could affect their school, work, or home lives. SAP provides early intervention and professional assessment and counseling to best meet the needs of the student. Services are free to all active CF students. The SAP is managed by BAY CARE LIFE MANAGEMENT, a health management organization. A student may call a toll-free helpline during regular business hours Monday through Friday from 8:30AM-5:00PM. For crisis situations after hours, on weekends, or holidays a student may call the same number and the therapist on duty will be paged and will promptly respond to the call. For services a student may call the following toll-free number: 1-800-878-5470

Homework assignments for the course will be posted in CANVAS, under 'Files'

Physics cannot be learned by only listening to a lecture or watching someone else work problems. Physics is best learned by doing it – applying the principles covered in class to solve problems and gain understanding about how the world works. Keep in mind that although homework does not get formally graded, and is not part of the overall course grade, it is THE way to test the development of your understanding of the concepts you are learning about during class and how they apply to understanding and analyzing the natural world.

Disclaimer: The tentative schedule for the course follows. Due to unforeseen circumstances, it may be necessary for the course schedule to change. I will always strive to be fair and timely about any changes

PHY1020 Section 01 Schedule

| Tuesday | Thursday |
|---|---|
| 1/10 Course overview/Chapter 1 | 1/12 Chapter 2 |
| 1/17 Chapter 2/3 | 1/19 Chapter 3/4 |
| 1/24 Chapter 4 <i>Phet Lab Activity Due by midnight: Moving Man</i> | 1/26 Chapter 5 |
| 1/31 Chapter 5, Begin Review Chapters 1-5 | 2/2 Review Questions and Test 1 (Ch. 1-5) |
| 2/7 Chapter 6 | 2/9 Chapter 7 <i>Phet Lab Activity Due by midnight: Collisions</i> |
| 2/14 College Planning Day, no class | 2/16 Chapter 8 |
| 2/21 Chapter 8/9 | 2/23 Chapter 10 <i>Lab Activity Due by midnight: Energy Conservation</i> |
| 2/28 Review Questions and Test 2 (Ch. 6-10) | 3/2 Chapter 11/12 |
| 3/7 Chapter 12/13 | 3/9 Chapter 13/14 |
| 3/14 Chapter 14 <i>Lab Activity Due by midnight 3/15: Fluids</i> | 3/16 Review Questions and Test 3 (Ch. 11-14) |
| 3/21 Chapter 15 | 3/23 Chapter 16/17 |
| 3/28 Chapter 17/19 | 3/30 Chapter 19 <i>Lab Activity Due by midnight 4/3: Wave on String</i> |
| 4/4 Review Questions and Test 4 (Ch. 15-17, 19) | 4/6 Chapter 22/23 |
| 4/11 Chapter 23/24 <i>Lab Activity Due by midnight 4/14: Ohm's Law</i> | 4/13 Chapter 24 |
| 4/18 Chapter 26 <i>Lab Activity Due by midnight 4/19: Earth's Magnetic Field (note: this is NOT a Phet simulation)</i> | 4/20 Review Questions and Test 5 (Ch. 22-24, 26) |
| 4/25 Chapter 32/33 | 4/27 Chapter 33. Last day of class. |
| 5/2 Final Test Chapters 32/33, 11am – 12:15pm | |