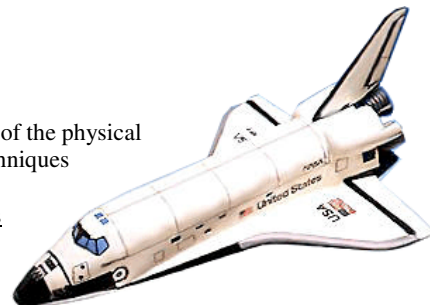


General Physics I

(Phys 113-01)

Fall 2023



What am I doing here? “Physics” is a description (not an explanation) of the behavior of the physical world around us. In this course you will learn some of the definitions, concepts, and techniques of physics. You will practice what you have learned by *solving physics problems* on homework assignments, quizzes, and exams. Seriously, the only way to learn physics is to do physics. At the end of this course, you should be able to apply the basic principles of classical mechanics (e.g., force, energy, and momentum) to solve a variety of problems (not just limited to the types we do in class).

What if I’m confused? Your textbook, *Physics* (any edition) by Cutnell & Johnson, provides many examples and hints for solving problems. The Physics Learning Center (ISC 233) may also be available for help when you are stuck. In addition, I will be happy to answer your questions (but not to do your homework for you) during the office hours listed above, or at any other mutually convenient time.

I want an ‘A’! I want you to get an ‘A’, too! Your grade in this course will be based on your homework grades, quizzes, and exams (including a comprehensive final).

Homework: You will submit your weekly homework using the CAPA system on the internet. CAPA homework is generally due **before 8 am** on the day indicated (see back). You may discuss the assignments with other students, **but you are responsible for doing your own work**.

Quizzes: Quizzes will be given every Thursday at 9:30am. These quizzes are open notebook, and will require you to *symbolically* copy a homework solution for a problem already due on that same day. I may drop your lowest quiz score when computing your final grade, depending on your circumstances and your choices.

Exams: You will take in-class exams using the CAPA system. You are required to bring a laptop to exams with a battery sufficiently charged to last the full 75 minutes. Exams will require you to answer conceptual questions and to solve problems which I will design. There are 4 exams, including the final. The exams are scheduled as follows.

Exam #1	Tuesday, September 26, 2023	Chapters 1, 2, 3, and 4a
Exam #2	Tuesday, October 24, 2023	Chapters 4, 5, and 6, 7
Exam #3	Tuesday, November 21, 2023	Chapters 7, 8, and 9
Exam #4	Tuesday, December 19, 2023 (3:30 pm – 6:00 pm)	Chapters 1 - 13

If, for some non-trivial reason, you are unable to take an exam at the scheduled time, I *may* allow you to take a make-up exam; however, you must contact me at least 1 week *prior* to the exam date. Rescheduling is *your* responsibility, not mine!

Grades: Final grades will be computed as follows:

CAPA Assignments	20% (total for all 14 assignments)
Quizzes	13% (total for all 13 quizzes)
Use of Office Hours	4% (at least 1 relevant visit in each of 2 calendar months)
Exams #1, 2, 3, and 4	63% total; the final (#4) is worth twice as much as the others

What is my responsibility? You are expected to own a physical (paper) text book. You must attend and participate in class (and arrive on time), study the relevant sections of your textbook, and complete all of your own homework assignments on time. You may not turn in homework problems that someone else has solved or use solutions you find online. At best you will not receive credit for the homework; at worst you will be charged with academic dishonesty.

This course moves along quickly and covers a lot of material; it is important that you keep up to date! In office hours, you should be prepared to use your computer’s snipping tool, and copy-and-paste in Discord (CTRL-C and CTRL-V) to quickly post images that are appropriately sized (i.e., not gazillion pixel images taken with your phone).

When will it all happen? Here is the schedule of events for this semester. Please note the due dates for homework and the dates for exams. The schedule is subject to revision as the course progresses, and any major changes will be announced in class.

Tuesday, August 29, 2023 Reading assignment: sections 1.1 - 1.5, Appendices A and B	Thursday, August 31, 2023 Reading assignment: sections 1.6 - 1.8; 2.1 - 2.3 Appendix E
Tuesday, September 5, 2023 Reading assignment: sections 2.4 - 2.7 Appendix C	Thursday, September 7, 2023 Reading assignment: sections 3.1 - 3.3 Assignment #1 Due (8:00am)
Tuesday, September 12, 2023 Reading assignment: sections 4.1 - 4.5	Thursday, September 14, 2023 Reading assignment: sections 4.6 - 4.10 Assignment #2 Due (8:00am)
Tuesday, September 19, 2023 Reading assignment: section 4.11	Thursday, September 21, 2023 Reading assignment: section 4.12 Assignment #3 Due (8:00am)
Tuesday, September 26, 2023 Exam #1 (Chapters 1 – 4a) Exam covers Assignments 1 through 3	Thursday, September 28, 2023 Reading assignment: sections 5.1 - 5.2 Assignment #4 Due (8:00am)
Tuesday, October 3, 2023 Reading assignment: sections 5.3 - 5.4	Thursday, October 5, 2023 Reading assignment: sections 6.1 - 6.3 Assignment #5 Due (8:00am)
Tuesday, October 10, 2023 Fall Break: no scheduled class	Thursday, October 12, 2023 Reading assignment: sections 6.4 - 6.7 Assignment #6 Due (8:00am)
Thursday, October 17, 2023 Reading assignment: sections 7.1 – 7.2	Thursday, October 19, 2023 Reading assignment: sections 7.3 - 7.5 Assignment #7 Due (8:00am)
Tuesday, October 24, 2023 Exam #2 (Chapters 4b – 7) Exam covers Assignments 4 through 7	Thursday, October 26, 2023 Reading assignment: sections 8.1 - 8.3 Assignment #8 Due (8:00am)
Tuesday, October 31, 2023 Reading assignment: sections 8.4 - 8.6	Thursday, November 2, 2023 Reading assignment: sections 9.1 - 9.2 Assignment #9 Due (8:00am)
Tuesday, November 7, 2023 Reading assignment: sections 9.3 - 9.4	Thursday, November 9, 2023 Reading assignment: sections 9.5 - 9.6 Assignment #10 Due (8:00am)
Tuesday, November 14, 2023 Reading assignment: sections 10.1 - 10.3	Thursday, November 16, 2023 Reading assignment: sections 10.4 - 10.6 Assignment #11 Due (8:00am)
Tuesday, November 21, 2023 Exam #3 (Chapters 7b – 9) Exam covers Assignments 8 through 11	Thursday, November 23, 2023 Thanksgiving Break: no scheduled class
Tuesday, November 28, 2023 Reading assignment: sections 11.1 - 11.6	Thursday, November 30, 2023 Reading assignment: sections 11.7 - 11.10 Assignment #12 Due (8:00am)
Tuesday, December 5, 2023 Reading assignment: sections 12.1 - 12.4, 12.6 - 12.8	Thursday, December 7, 2023 Reading assignment: sections 13.1 - 13.4 Assignment #13 Due (8:00am)
Thursday, December 14, 2023 Assignment #14 Due (8:00 am)	Tuesday, December 19, 2023 Exam #4 (Chapters 1 – 13) Exam covers Assignments 1 through 14 3:30 pm – 6:00 pm

SUNY Geneseo
Department of Physics and Astronomy
Class: TR 9:30 -10:45 am; Newton 204
Web: www.geneseo.edu/~pogo

Dr. Pogo
Online Office Hours: Online Office Hours: MW 8:30 - 10:20; MW 1:30 - 2:20
Online Office Hours Link: <https://discord.gg/GjkWREU>
E-mail: pogo@geneseo.edu

Learning Outcomes

This course satisfies SUNY General Education Requirements (GER) in Natural Science. Students will demonstrate an understanding of the methods scientists use to explore natural phenomena, including observation, hypothesis development, measurement and data collection, experimentation, evaluation of evidence, and employment of mathematical analysis; and students will demonstrate application of scientific data, concepts, and models in one of the natural (or physical) sciences.

At the end of this course, students will:

- Be able to use basic 1D and 2D kinematics (including the effects of gravity) to describe and predict the behavior of ideal objects.
- Be able to use free-body diagrams (force analysis) to describe and predict the behavior of ideal objects.
- Be able to use the principles of energy conservation to describe and predict the behavior of ideal objects.
- Be able to use the principles of momentum conservation to describe and predict the behavior of ideal objects.

Also, the college provides information at the following URL relating to a variety of topics:

<https://wiki.geneseo.edu/display/PROVOST/Syllabus+Resources+Related+to+Student+Success>