

General Physics 1 (PHYS 113)

[this version last updated 2020-07-22 --- please check Canvas for latest version!]

Course description: This course covers the principles of mechanics, heat, fluids, oscillations, waves and sound. Emphasis is on conceptual development and numerical problem solving.

Textbook: *College Physics* from OpenStax (<https://openstax.org/details/books/college-physics>) chapters 1 through 17. This is an open, free textbook, available at the address above. The web version or downloaded PDF version is preferred as it is updated most often.

Primary online system: Canvas

Special online homework system: Sapling Learning (<https://www.saplinglearning.com/>) This costs money, but costs less than a traditional textbook, and it handles physics problems well. Sign up through Canvas using the instructions found inside the Canvas course home page.

Course sections: Each week we will have two 50-minute lectures (except on Labor Day), one 50-minute recitation, and one 110-minute lab. There will be five exams during the semester and one comprehensive, mandatory final exam.

Course format: Due to the COVID-19 situation, this course will be “live online,” also known as “synchronous distance learning.” Each component of the course is scheduled at a specific time so that students have the chance to participate and ask questions in real time. Participation via Zoom at the scheduled times is *required* for lab and recitation sections. Lecture attendance is strongly encouraged, and points will be awarded for attendance and participation.

Schedule of topics: We will cover chapters 1-17 in order at an even pace through the semester.

Instructors and how to contact them:

Lecturer: Glenn Horton-Smith – please use Canvas Inbox to contact (it will be faster!)
Director of Labs: Brandi Lohman – bcl6677@phys.ksu.edu
Recitation and lab instructors: see your course schedule online.

For office hours of any instructor see <https://www.phys.ksu.edu/teaching>.

Grading scheme:

Lecture participation:.....	29 points;
Laboratory:	180 points *;
Recitation Work (best 14 out of 15):	140 points;
Online Homework Assignments:	150 points;
Midterm exams (best 4 of 5):	400 points;
Final exam (comprehensive and mandatory):	101 points;
Total:	1000 points.

* A passing grade in laboratory (>60% of the maximum points) is *required* to pass the course.

Final grade determination:

900 - 1000 points: A

800 - 899 points: B

700 - 799 points: C

600 - 699 points: D

Under 600 points **or failed lab**: F *

*** A passing grade in laboratory is required to pass the course.**

About lectures:

Lectures include demonstrations, presentation of concepts, blackboard solutions of some example problems, and live Q&A. The lectures will make more sense if you read the textbook sections before the lecture rather than after. See the [Lesson Order And Reading List](#) in Canvas for the reading schedule.

About labs:

The laboratory is a required and integral part of the course. ***A passing grade in laboratory is required to pass the course.*** You will not need to buy a lab notebook for this course; you will do everything digitally in class. See the lab manual for rules and grading procedures. Relevant sections from the lab manual are available in electronic form on K-State Online and on the lab computers.

Students retaking the course who have successfully completed the lab must contact Brandi Lohman prior to the first week of lab in order to get credit for previous lab work.

About recitations:

Solving problems systematically on a regular basis is an important part of success in physics. Qualitative understanding of concepts is also important. The recitation sections are designed to advance these learning goals.

The recitation sections are focused on learning to solve physics problems. In recitation you will work in with a small group to understand and solve a problem posed at the start of the class. You may ask the recitation instructors questions in real time throughout the recitation. Your solution must be submitted before the end of the class period.

You may of course retain your own solutions to recitation problems for study purposes, but neither problems nor solutions may be uploaded to sharing websites, nor may you share them with future students or anyone not taking this class. See also the copyright statement at the end of this syllabus.

The lowest recitation score will be dropped.

About homework:

Solving problems systematically on a regular basis is an important part of success in physics. Qualitative understanding of concepts is also important. The homework problems are designed to

further advance these goals, and also provide students and instructors early assessment of progress towards these goals.

Homework will be assigned online in Sapling Learning each week. You should study the textbook and work out the online homework on paper as best you can each week. It will be to your advantage to do this before recitation, ask any questions you have during recitation, and make corrections and submit your answers after recitation.

You may of course retain your own solutions to homework problems for study purposes, but neither problems nor solutions may be uploaded to sharing websites, nor may you share them with future students or anyone not taking this class. See also the copyright statement at the end of this syllabus.

No online homework scores will be dropped.

About exams:

Exams will be online this semester due to the COVID-19 situation. Exams must be done individually, on your own, without external aid. See also the sections below titled “About authorized vs unauthorized aid in academic work for this class,” “Statement Regarding [Academic Honesty](#),” and “Copyright” below.

Details of exam implementation are still being worked out as this syllabus is written. More details will be announced in Canvas, and this syllabus will be updated.

Exams may absolutely not be uploaded to homework-sharing websites, saved for future General Physics students, or copied in any way. See copyright statement at the end of this syllabus.

You may of course retain your own exam solutions for study purposes, but neither recitation problems nor solutions may be uploaded to homework-sharing websites, nor may you share them with future students or anyone not taking this class. See copyright statement at the end of this syllabus.

Getting individual help:

Any student wanting individual help is urged to contact their recitation or lecture instructor during office hours, or at other times by appointment. In addition, some physics graduate students work as paid tutors. A list of contacts will be posted when available.

You can also find information and links to help for physics courses at <http://www.phys.ksu.edu/teaching.html>.

About authorized vs unauthorized aid in academic work for this class:

In this course, you are permitted to work with other students on homework problems, but you may not directly copy answers from any source. You must work the problems for yourself. Exams and quizzes must be completed individually using only the materials allowed by the exam/quiz instructions. Policies for laboratory work and write-ups are given in the lab manual. If you have

any questions about what constitutes authorized and unauthorized aid, contact the instructor immediately.

Conditions Requiring Special Accommodations:

If you have any condition which will require academic accommodations, please notify the instructor and contact the Student Access Center office. For more information, see the “*Statement Regarding Students with Disabilities*” below.

All Course Syllabi Must Include the Following Statements [please read them]

Statement Regarding Academic Honesty

Kansas State University has an Honor and Integrity System based on personal integrity, which is presumed to be sufficient assurance that, in academic matters, one's work is performed honestly and without unauthorized assistance. Undergraduate and graduate students, by registration, acknowledge the jurisdiction of the Honor and Integrity System. The policies and procedures of the Honor and Integrity System apply to all full and part-time students enrolled in undergraduate and graduate courses on-campus, off-campus, and via distance learning. A component vital to the Honor and Integrity System is the inclusion of the Honor Pledge which applies to all assignments, examinations, or other course work undertaken by students. The Honor Pledge is implied, whether or not it is stated: "On my honor, as a student, I have neither given nor received unauthorized aid on this academic work." A grade of XF can result from a breach of academic honesty. The F indicates failure in the course; the X indicates the reason is an Honor Pledge violation.

Statement Regarding Students with Disabilities

Students with disabilities who need classroom accommodations, access to technology, or information about emergency building/campus evacuation processes should contact the Student Access Center and/or their instructor. Services are available to students with a wide range of disabilities including, but not limited to, physical disabilities, medical conditions, learning disabilities, attention deficit disorder, depression, and anxiety. If you are a student enrolled in campus/online courses through the Manhattan or Olathe campuses, contact the Student Access Center at accesscenter@k-state.edu, 785-532-6441; for K-State Polytechnic campus, contact Julie Rowe, Diversity, Inclusion and Access Coordinator, at jarowe@ksu.edu or call 785-826-2971.

Statement Defining Expectations for Classroom Conduct

All student activities in the University, including this course, are governed by the Student Judicial Conduct Code as outlined in the Student Governing Association By Laws, Article V, Section 3, [paragraph A], number 2. Students who engage in behavior that disrupts the learning environment may be asked to leave the class.

[Note: Everything in Article V, Section 3, paragraph A, numbers 1-21 is also disallowed!]

Statement Regarding Wearing of Face Coverings

To protect the health and safety of the K-State community, students, faculty, staff and visitors must wear face coverings over their mouths and noses while on K-State campuses in all hallways, public spaces, classrooms and other common areas of campus buildings, and when in offices or other work spaces or outdoor settings when 6-foot social distancing cannot be maintained. In addition, all students, faculty, and staff are required to take the [COVID-19 and Face Mask Safety training](#). Employees who need reasonable accommodations and assistance related to required face coverings may contact the ADA coordinator at charlott@k-state.edu, and students needing accommodations may contact the Student Access Center at accesscenter@k-state.edu.

In classrooms, faculty have the right to deny a student entry into the room if the student is not wearing a face covering. Students not wearing a face covering will be reminded to do so and offered a clean face covering, if one is available. If the student does not comply, the faculty member will ask the student to leave the space, and if available, join the class remotely. As a last resort, campus police will be called. The faculty members will complete the [Code of Conduct form](#) and the Office of Student Life will look further into the issue and take the non-compliance with the request to leave into consideration of further accountability measures.

At no point should the professor or other students put themselves into an unsafe situation while attempting to enforce the face-covering policy. Manhattan campus police: 785-532-6412

Safe Zone Statement

I am part of the SafeZone community network of trained K-State faculty/staff/students who are available to listen and support you. As a SafeZone Ally, I can help you connect with resources on campus to address problems you face that interfere with your academic success, particularly issues of sexual violence, hateful acts, or concerns faced by individuals due to sexual orientation/gender identity. My goal is to help you be successful and to maintain a safe and equitable campus.

Copyright

This syllabus, lectures, and other original course materials copyright 2020 by Glenn Horton-Smith. Selling notes to or being paid for taking notes by any person or commercial firm is prohibited without the express written permission of the professor teaching the course.

In addition, students in this class are not authorized to provide class notes or other class-related materials to any other person or entity, other than sharing them *directly* with another student taking this class for purposes of studying, without prior written permission from the professor teaching this course.

In particular, putting it plainly, do not give my course materials to Chegg, StudySoup, Study Blue, Koofers, Course Hero, or any similar or dissimilar website, company, or anyone not taking this class this semester, or any other “entity” of any kind, no matter what they say they will or will not do with the material: those entities are not students taking this class. Unauthorized note distribution is also prohibited by SGA ByLaw V.3.A.21.