General Physics 1 (PHYS 113)
[this version last updated 2021-08-05 --- 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: Achieve (https://achieve.macmillanlearning.com/start) by Macmillan Learning 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 by five exams during the semester and one comprehensive, mandatory final exam.

Course format: This course is taught “in person.” 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 in lab and recitation sections at scheduled times is required.

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.

① Note: In the event that the University orders classroom social distancing or an overall change to online instruction, this course will still be taught “live,” and participation via Zoom at the scheduled times may be required for lab and recitation sections. The instructor does not have the authority to change to online instruction under current University policy. However, temporary student quarantine or isolation situations may be accommodated on a case by case basis.
Grading scheme:

Laboratory (best 12 out of 13): 240 points;
Recitation Work (best 14 out of 15): 140 points;
Online Homework Assignments: 150 points;
Midterm exams (best 4 of 5): 380 points;
Final exam (comprehensive and mandatory): 90 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 Achieve 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 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.

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 the 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 else in Article V, Section 3, paragraph A, is also disallowed.]

Statement on Mutual Respect and Inclusion in K-State Teaching and Learning Spaces

[This is new for fall 2021!]

At K-State, faculty and staff are committed to creating and maintaining an inclusive and supportive learning environment for students from diverse backgrounds and perspectives. K-State courses, labs, and other virtual and physical learning spaces promote equitable opportunity to learn, participate, contribute, and succeed, regardless of age, race, color, ethnicity, nationality, genetic information, ancestry, disability, socioeconomic status, military or veteran status, immigration status, Indigenous identity, gender identity, gender expression, sexuality, religion, culture, as well as other social identities.

Faculty and staff are committed to promoting equity and believe the success of an inclusive learning environment relies on the participation, support, and understanding of all students. Students are encouraged to share their views and lived experiences as they relate to the course or their course experience, while recognizing they are doing so in a learning environment in which all are expected to engage with respect to honor the rights, safety, and dignity of others in keeping with the K-State Principles of Community https://www.k-state.edu/about/values/community/.

If you feel uncomfortable because of comments or behavior encountered in this class, you may bring it to the attention of your instructor, advisors, and/or mentors. If you have questions about how to proceed with a confidential process to resolve concerns, please contact the Student Ombudsperson Office. Violations of the student code of conduct can be reported here https://www.k-state.edu/sga/judicial/student-code-of-conduct.html. If you experience bias or discrimination, it can be reported here https://www.k-state.edu/report/discrimination/.

Statement Regarding Wearing of Face Masks [updated for fall 2021]

All students are expected to comply with K-State’s face mask policy. As of August 2, 2021, everyone must wear face masks over their mouths and noses in all indoor spaces on university property, including while attending in-person classes. This policy is subject to change at the university’s discretion. For additional information and the latest on K-State’s face covering policy, see https://www.k-state.edu/covid-19/guidance/health/face-covering.html.

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 By-Law article V section 3 A-20.