Syllabus
PH 107 – Elementary Physics 1 Fall 2026

Contact Info
Instructor: Diana Forbes
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Office: Holcomb Building 263 (HB263)
Office hours: M: 1:30 – 2:30 PM
W: 1:30 – 2:30 PM
F: 1:30 – 2:30 PM
or by appointment
Note: I will hold office hours in the Physics Lounge HB 256.

Meeting Times
Lectures: Mon, Wed, Fri 9:30 - 10:20 am in Levinson Family Hall 125
Recitation: Thursday 9:30 - 10:20 am in Levinson Family Hall 125
Consult Lab Syllabus for Lab meeting times.

Required Materials

- Class Textbook: College Physics: A Strategic Approach, 4th Edition by Randall Knight, Brian Jones, and Stuart Field. You can get a physical copy or an ebook.
- Class Lab Manual: RealTime Physics: Active Learning Laboratories, Module 1: Mechanics, 3rd Edition by David Sokoloff, Ronald Thornton, and Priscilla Laws. You must get a new paper copy since you will be filling it out during lab time.
- Scientific calculator, separate from your phone

Prerequite

- Mastery of algebra and trigonometry.

Credits

- 4.0 Semester Hours
- PH107 does not fulfill the Natural World requirements of the Core Curriculum.

Course Objectives

This course together with its continuation course, PH108, are a survey of the fundamental topics in classical physics – basically, the physics we knew before 1900. Understanding these basics is still fundamental for describing most everyday physical phenomena and is also essential for understanding modern physics. This semester, we will study macroscopic motion first through kinematics then through Newton's laws in one and two dimensions, conservation of momentum,

and conservation of energy. These methods will then be applied to extended bodies in rotational equilibrium. Development of problem-solving skills will be emphasized throughout. The lab will allow the student to experience the phenomena discussed in lecture and strengthen the abilities to quantify physical observations.

About the Course

The lecture portion of this course will be a mix of in-class activities and lecturing that require your participation. Therefore, reading the assigned material **before** coming to class is essential. You can find the assigned reading (to have done **by** class time) in your course calendar on Canvas. We will hold random reading quizzes during the semester that won't be for a grade, but they will be diagnostic to help you get a sense of how well you're keeping up with the content. In addition, there will be weekly participation activities described in class.

We will often have a chance to work on supplemental problems in class after the lecture. For these problems, please bring your laptop to class so that you may access them on Canvas and work on them.

Attendance/Participation

I expect you to attend class and lab with diligence. Participation (engaging in class activities, submitting assignments, asking questions) is 10% of the course grade. A consistent participation assignment will be due in Canvas every Friday by midnight. I will describe this activity during Lecture 1 and it will be available in Canvas. I will not take late submissions for this weekly assignment.

Please refer to the lab syllabus to learn about expectations and exceptions with regards to lab attendance.

Homework

Given the rising usage of AI, I will not require you to complete and submit homework, but I will release optional weekly homework problems through Canvas every Friday, with solutions available the following Friday. Diligent and honest students will reap rewards from performing well on exams and gaining mastery of the content. I encourage you to complete these problems without AI assistance, and bring questions to me as they come up.

Exams

There will be 3 exams given during class time in addition to the final. Consult the schedule for the dates. The final exam will be held in our lecture room, Levinson Family Hall 125, on Wednesday, December 16th, from 8 to 11 am. It will be comprehensive containing material from the entire course. **If you miss an exam without communicating ahead of time with me, you**

will get an automatic zero on it. Alternate exams can be arranged if you have an emergency or illness and if you plan with me ahead of time through email.

Final exam policy: “All final examinations must be given on the scheduled date and at the scheduled time… No official provision exists for arranging a special examination to accommodate a student with a heavy concentration of examinations on a single day… If a student is unable to take a final examination for reasons beyond the student’s control, the instructor should be informed immediately so appropriate arrangements can be made. If convinced that circumstances warrant it, an instructor may administer a make-up examination to a student who is unable to take the final examination on the scheduled date. No instructor, however, is authorized to administer a final examination before the scheduled date.”

Study Tables

A two-hour study table will be held each week throughout the semester in the Physics Lounge HB 256 (the time will be announced later). Students are encouraged to attend and ask questions about class material, book material, and problems.

Grading Distribution and Scale

Your final grade in the course will be distributed among the following components:

Supplemental Problems: 5%
Homework- 8%
Lab Reports- 13%
Lab Homework- 12%
Exams- 42%
Final Exam- 20%
Recitation (Bonus)- 2%

I will use the following absolute grading scale:

	A: >92	A-: 90-92
B+: 87-89	B: 83-86	B-: 80-83
C+: 77-79	C: 73-76	C-: 70-72
D+: 67-69	D: 63-66	D-: 60-62
	F: <60	

I will round your score to the nearest whole number. For example, if your final score is 89.4, that will be an 89 in the class. If your final score is 89.6, that will be a 90 in the class. **Final grades are not negotiable. Requests for grade adjustments at the end of the semester will be denied.**

Academic Integrity

All Butler University students have the responsibility to know and observe the University's policy on academic integrity. The policy is available in the Butler Student Handbook. All students are expected to uphold academic integrity in all course modalities. Students submitting online or in-person assignments should ensure the work is their own. Students taking online or in-person quizzes and exams should complete these assessments of learning under the conditions mandated by the instructor, submitting only responses that represent the student's original work. In all cases, the instructor's evaluation of a student's performance in a course should be based solely on the student's own efforts and understanding.

Artificial Intelligence

Do not use A.I. (artificial intelligence) for anything in this class. AI usage is hurting peoples' education by outsourcing your thinking, reinforcing problematic ideas, and teaching you fake concepts through AI hallucinations. This class is meant to teach you to think critically and for yourself. Additionally, AI use is bad for the environment, and I do not want my students to contribute to that.

Work that is completed with AI assistance and then submitted as your own will receive a 0 score and will be disciplined according to University policies for plagiarism.

Accommodations for Documented Disabilities

It is the policy and practice of Butler University to provide reasonable accommodations for students with properly documented disabilities. Registration with Student Disability Services (SDS) and subsequent notification of faculty from SDS is required. If you are eligible to receive an accommodation and would like to request it for this course, please contact SDS. Be advised

that a two-week advance notice is recommended to ensure enough time for reasonable accommodations to be made. Otherwise, it is not guaranteed that the accommodation can be provided on a timely basis.

Students interested in learning more about registration with Student Disability Services or who have, or think they may have, a disability (psychiatric, attentional, learning, vision, hearing, physical, medical, etc.) are invited to contact Student Disability Services for a confidential discussion by filling out an SDS Interest form through the SDS accommodation portal. Students can access the portal on the SDS website by clicking "Interested in Registering for Accommodations?" in the menu on the left side of the page. SDS is located in Jordan Hall, Room 136; 317-940-9308; sds@butler.edu.

Please also send me a detailed email that outlines what your in-class needs are, and how you'd like me to assist you as your instructor.

Accommodations for Religious Observance

The Accommodation for Religious Observance policy, provided below, outlines the steps to take if you seek an accommodation for your religious practice or observance. Students can receive academic accommodations for religious observance if academic requirements create a conflict with required religious observance. It is the student's responsibility to be in communication with their professors at least two weeks prior to the need for the accommodation.

> "Butler University respects all students' right to religious observance and will reasonably accommodate students' religious practice with regard to class attendance, examinations, and assignments when requests are made in a timely manner. Butler University recommends that each class should have a syllabus that provides a schedule of activities for the class. It is the student's responsibility to inform instructors of course conflicts resulting from religious observations at least two weeks in advance of the observance so that accommodations can be made. Requests must be made in writing, and the student should include a proposed alternative due date, examination date, or make-up outline. The professor should review the request and if the student's proposed suggestion is acceptable, should notify the student of the agreement. Any solution that is mutually agreeable to both student and faculty member is acceptable. If accommodations cannot be agreed upon, the instructor and students should seek the advice of the associate dean in the appropriate college. No adverse or prejudicial effects will result to students because they have made use of these provisions."

Butler's Compass Center, located in the Blue House on Sunset Ave., is dedicated to supporting the religious, spiritual, and secular communities of all students, faculty, and staff. If you have

questions or would like support on using this policy, please contact the Compass Center Director, Aziel Nunez, at anunez2@butler.edu.

Mental Health and Well-Being Resources

We're here to help. As you nourish your mind with new skills and ideas, remember college is also a time to form good habits around your health and well-being. Our goal at Butler is to provide you with tools to make informed choices, as well as resources to stay healthy – mentally and physically. For a list of well-being resources, go to: https://www.butler.edu/well-being/mental-health/

Reporting Inequity, Discrimination, or Harassment

Butler University is committed to fostering safe and productive living, learning, and working environments free from discrimination and harassment. Faculty members are expected to report any incident of sexual misconduct, discrimination, and/or harassment that students may report to them. These incidents should be reported to the Office of Institutional Equity. The Office of Institutional Equity is responsible for promoting and ensuring fair and equal treatment for all individuals within the university community. Its primary role is to address issues related to discrimination, harassment, and unequal treatment based on protected characteristics such as race, color, sex, gender identity, sexual orientation, national origin, disability, religion, or age. After the office receives a report, the director will then reach out to the reporting student for further discussion. If you would like to speak with someone confidentially who will not be required to report what you share, there are several resources available, including the Office of Student Advocacy, Counseling and Consultation Services, and ordained clergy providing pastoral care in the Compass Center. Information about these and other resources can be found on the Office of Institutional Equity and Addressing Incidents of Bias websites. If you have questions or would like support regarding this policy, please contact the Office of Institutional Equity at OIE@butler.edu.