

PHYS 407, General Physics 1, Fall 2022.

Instructor: Dr. Sergey Pershoguba
Email: sp1478@unh.edu
Lectures: 11:10 am - 12:00 pm on MWF in DeMeritt 112.
Textbook: *Physics for scientists and engineers*, R. Knight (4th Ed),
(available at UNH bookstore or [Amazon](#)).
Course schedule: available [here](#).
Office hours: TBD
Physics help center: TBD

Recitations:

	Instructor	When	Where
R01	Prof. Karl Slifer, karl.slifer@unh.edu	9:40 AM – 11:00 AM, Tue	DeMeritt 301
R02	Mr. Cameron Flynn, cameron.flynn@unh.edu	11:10 AM – 12:30 PM, Tue	DeMeritt 301
R03	Prof. James Connell, connell@guero.sr.unh.edu	9:40 AM – 11:00 AM, Tue	DeMeritt 311
R04	Prof. Dawn Meredith, dawn.meredith@unh.edu	11:10 AM – 12:30 PM, Tue	DeMeritt 311

Labs [First lab starts on Sep 6]:

	When	Where
L01	5:10 PM – 8:00 PM, Mon	DeMeritt 301
L02	6:10 PM – 9:00 PM, Tue	DeMeritt 301
L03	5:10 PM – 8:00 PM, Wed	DeMeritt 301
L04	6:10 PM – 9:00 PM, Thu	DeMeritt 301

Registration and Prerequisites

You must be registered for one section of recitations (PHYS 407 R01-R04) and one section of labs (PHYS 407 L01-L04).

You should have a basic understanding of algebra and trigonometry and be registered for Calculus I (MATH 425) (unless you have already taken and passed MATH 425 or its equivalent).

Expectations and goals

- This is a serious course intended for students who intend to enter science or engineering as a profession. To succeed in the course you must be motivated to learn the material. You will have to work approximately two hours outside of class for each hour spent in class.
- Come to class prepared to think and to use the ideas presented in the text. This course will be based on an active-learning approach, in which problem solving and applying what you learn are the means by which you develop your understanding, both in lecture and outside of lecture.
- Learn problem-solving skills – don't just hunt for equations in the text and then plug in numbers!
- You will want to come to every class, as in-class exercises will be a critical part of your learning in this course. Answering multiple-choice “concept questions” during class will also count towards your grade, as described below.
- You should read each chapter before it is covered in lecture.
- You will be expected to complete problem sets, lab assignments, and recitation-section group problems - see below for more details.
- Many of the problems that I assign will be specifically designed to help you build problem-solving skills (e.g., learning how to draw motion diagrams and free-body diagrams) and physical reasoning (explaining why things happen in words that capture the essential causal relationships). Work hard on these skills--- they will help you gain mastery of this subject.
- Review the algebra, geometry, and trigonometry in Appendix A of the textbook. You need to be comfortable with math at this level in order to learn the physics that we will cover in this class.
- Please be on time to lecture. If you are late, tiptoe in through the back door.
- If you absolutely, positively must leave early, tiptoe quietly out the back without disturbing your fellow students. If you do not have a compelling reason to leave early, then please stay until the end of the class to avoid disrupting the lecture.
- No conversations while I am presenting material. If you are distracting others students, you are lowering their course grades. If you are distracting me while I am lecturing, the lectures will suffer, and your fellow students will lose out.
- Ask questions, in lecture, recitation, labs, and office hours.
- Never laugh at another student's question.

Exams

There will be 3 midterm exams during the lecture time on 9/30, 10/28, 12/02 and a final. See the course schedule [here](#). Your lowest score for the midterm exams will be discarded. Please let me know if you are not able to make it to the exam well in advance.

Assignments

- 3 exams and a cumulative final exam
- Weekly labs
- Weekly recitations
- Weekly homework assignments, due Friday in class. Late homeworks – will not be graded.

Grading

50% Exams, 15% Labs, 15% Recitation, 20% Homework.

Textbooks

Required text: *Physics for scientists and engineers*, R. Knight (4th Ed), (available at UNH bookstore or [Amazon](#)). We will cover Chapters 1-12 and potentially parts of other chapters.

A number of these books are available for your use on 2 hour reserve in the Physics Library.

Supplemental (free) text: University Physics by Samuel J. Ling, Jeff Sanny, William Moebs available at <https://openstax.org/details/books/university-physics-volume-1>

Academic honesty

You are encouraged to work in groups and use a broad base of resources to complete homework assignments. Finding the answers and/or submitting work that is not your own will not help you learn and violates the UNH Academic Honesty policy. For exams, the work needs to be your own. This is how you demonstrate your learning, and it is also what makes up most of your grade for the course. Any form of cheating on an exam, no matter how minor, will not be tolerated. If you are found cheating you should expect to immediately fail the course.

COVID Protocols

Unfortunately, COVID is still a part of our community. It is your responsibility to pay attention to messaging from the University (RAVE and Canvas and Email) in the event that any COVID protocols change. You can always access current COVID protocols and requirements through the Health and Wellness Website: <https://www.unh.edu/health/health-alert-covid-19>

We all value the health and safety of our Wildcat Community and respect everyone's unique health and risk tolerance. You are welcome to wear a mask in this classroom if you choose. (or substitute your mask policy). It is your responsibility to obtain a mask before coming to class.

If you required to be in isolation or quarantine, the Dean of Students will send a letter to all of your instructors. See extended absense policies below for temporary academic resources to support your continued learning in this course if you must miss significant class time.

Durham only: A valid Wildcat Pass is required to be on campus and in this classroom. Your Wildcat Pass will be invalid if you are supposed to be in isolation or quarantine, or if you have not completed the arrival and baseline testing requirements.

Confidentiality and Mandatory Reporting of Sexual Violence or Harassment

The University of New Hampshire and its faculty are committed to assuring a safe and productive educational environment for all students and for the university as a whole. To this end, the university requires faculty members to report to the university's Title IX Coordinator (Laura Buchs, laura.buchs@unh.edu, 603-862-2930/1527 TTY) any incidents of sexual violence and harassment shared by students. If you wish to speak to a confidential support service provider who does not have this reporting responsibility because their discussions with clients are subject to legal privilege, you can contact SHARPP (Sexual Harassment & Rape Prevention Program) at (603) 862-7233/TTY (800) 735-2964. For more information about what happens when you report, how the university treats your information once a report is made to the Title IX Coordinator, your rights and reporting options at UNH (including anonymous reporting options) please visit [student reporting options](#) .

Help us improve our campus and community climate. If you have observed or experienced an incident of bias, discrimination or harassment, please report the incident by contacting the Civil Rights & Equity Office at UNH.civilrights@unh.edu or TEL # (603) 862-2930 voice/ (603) 862-1527 TTY / 7-1-1 Relay NH, or visit the CREO website. Anonymous reports may be submitted.

Assistance for Students

The University is committed to providing students with documented disabilities equal access to all university programs and facilities. If you think you have a disability requiring accommodations, you must register with Disability Services for Students (DSS). If you have received an accommodation letter for this class, please contact me immediately so we can discuss the necessary arrangements. Contact DSS at www.unh.edu/disabilityservices/clockwork, (603) 862-2607 or disability.office@unh.edu.

In addition, your academic success in this course is very important to me. If, during the semester, you find emotional or mental health issues are affecting that success, please contact the University's Counseling Center (3rd fl, Smith Hall; 603 862-2090/TTY: 7-1-1), which provides counseling appointments and other mental health services. If you choose to talk to me directly, please know that I am required to report a subset of mental and physical health concerns.

Finally, to insure a climate of learning for all, disruptive or inappropriate behavior (repeated outbursts, disrespect for the ideas of others, etc.) may result in exclusion (removal) from this class. As a reminder, cell phone/pda, etc. use, including text messaging, is not permitted in this class by Faculty Senate rule.

Notice

This syllabus is subject to change. The course website (MyCourses) will be kept up to date with any changes.