

General Physics I
PHYS 1115 -
Online Summer
Randolph College
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Textbook:

There are two options for the textbook:

- Halliday, Resnick, Walker, Jearl. *Fundamentals of Physics*, 9ed (ninth edition). There is an extended version, a regular version, and a version in two volumes. If you are taking both 1115 and 1116 then you need to get both volumes (or the regular version). You can find them cheaply on Amazon, especially used versions.
- University Physics. Free online ebook available at <https://openstax.org/details/books/university-physics-volume-1>

The topics are the same although the order may be slightly different.

Homework System:

We will be using ExpertTA for your homework assignments and exams. Students will need to register and pay the registration fee (typically about \$20 per summer 5-week session).

Course description:

This course is the first half of a calculus-based survey of basic physics. We will be covering mechanics—the basic study of how things move—including kinematics, forces, energy, and rotation. The level is aimed at beginning physics majors, engineers, and pre-meds. Because this is a shortened online class, we will be covering eleven chapters very rapidly, so be prepared to work hard and keep up with the material. Physics is really fun, so hopefully you will learn a lot and enjoy learning some of the material.

Class Components

Class Management: We will be using Moodle as the course management system. The bulk of the course material will be on Moodle. Hopefully you have already logged into Moodle if you are reading this. All of the material that you need to complete each day and each week will be in Moodle. Completing all of the activities counts toward your participation grade. Moodle has a progress bar that shows all of the assignments that you have completed and what you have left to do, and I recommend that you use it.

Homework: The only way to solve problems is to practice, so you will have homework assignments every day other than the day of the exams. All of your homework assignments will be completed in Expert TA. They will be listed in Moodle, but you do not need to upload

anything, just check the boxes when you are done. You may work together on your homework, but what you turn in must be your own work. Late assignments will be penalized 10% per day.

Exams: There will be three exams evenly spaced through the 5 weeks. They will also be completed on Expert TA, but there will be a set time to complete the exam. These must be completed on your own. You may use your notes, books, and other course material, but you may not work together or search for the answers online.

Office hours: We will be using a program called Zoom to do office hours. Here is the link to meet with me: <https://zoom.us/j/5879678631>. The times of office hours will vary from day to day and week to week. According to the student survey, evening office hours seem to be the most requested. The hours will be posted on Moodle in advance. There will be at least one hour per day and more on designated lab days. If you would like to meet with me at a specific time, please email me to make an appointment, and I would be happy to arrange a time to meet with you.

Course Policies

Grading: Your grade will be determined as follows:

Exams (3)	60%
Homework	20%
Participation	20%
Total	100%

A	93-100	C	73-76
A-	90-92	C-	70-72
B+	87-89	D+	67-69
B	83-86	D	63-66
B-	80-82	D-	60-62
C+	77-79	F	< 59

Disability Statement: If you have a disability, an illness, or injury that keeps you from learning to the best of your ability, there are services available that may be helpful. Students with disabilities needing accommodations in summer online classes at Randolph College may send any requests for accommodations and accompanying documentation to accessibility@randolphcollege.edu. Students enrolled at other colleges or universities may submit current letters of accommodation from their home school. Students who are not currently receiving accommodations and would like to inquire about receiving them in summer online classes at Randolph College can send any pertinent documentation or inquiries to the Coordinator of Disability Services at the email address listed above.

The Honor Code: All of your work is pledged work under the Randolph College Honor Code. While you may work together on homework assignments, what you turn in must be your own work. Exams must be your own work completed according to the guidelines in the syllabus and each exam. Please note that it is a violation of the honor code in this course to look at exams and homework assignments from other offerings of the course whether concurrent or past regardless of the instructor of the course. If you are not familiar with the Randolph College

Honor Code, you can obtain more information at <https://www.randolphcollege.edu/academics/honor-code/> . If you have specific questions or need to ask for clarification, please discuss it with me.

Course Schedule

The details of the schedule will be updated on Moodle as the semester progresses.

Week 1: Measurement, Units, 1-D Motion

Week 2: Vectors, 2D and 3D Motion

Week 3: Forces and Newton's Laws

Week 4: Work, Energy, and Energy Conservation

Week 5: Momentum, Rotation, and Torque