# Physics 0175

# **Basic Physics for Students of Science and Engineering 2**

Spring Term 2022 (2224) CRN 10937

**Lecturer:** Prof. Robert P. Devaty **Office Hours:** Tuesdays, Fridays, 2:30 – 3:30 pm

E-Mail: devaty@pitt.edu Zoom within Canvas: https://pitt.zoom.us/j/4981057777

Office: 211 Allen Hall Passcode 15217 (if needed)

**Recitation** 

**Instructors:** Victoria Bonidie **Office Hours:** Wednesdays, 9 – 10 am

Office: Allen Hall 500 Recitation Zoom passcode: gauss

E-Mail: <u>VEB19@pitt.edu</u> **Resource Room:** 

Wenjie Huang Office Hours: 12:00 – 1:00 pm

Office: Allen Hall 500 Desk 4 Zoom Room: https://pitt.zoom.us/j/91065417329

E-Mail: WEH68@pitt.edu Passcode: 620420 Resource Room:

**Undergraduate Teaching Assistant:** None

E-Mail: Office Hours:

Go to Canvas for up-to-date listings of office hours.

**Text:** Fundamentals of Physics (Extended Tenth Edition) by David Halliday, Robert Resnick

and Jearl Walker, Chapters 21-33, 35 – 36. It is important to do the assigned reading **before** the associated lecture. (Note: The print edition of the 11<sup>th</sup> Edition is identical to the 10<sup>th</sup> Edition. The on-line version of the 11<sup>th</sup> edition, which I have not seen, is quite different. Since I am not choosing homework problems from the book, any previous edition of Halliday, Resnick and Walker, or any other calculus-based introductory physics text you like will serve the purpose. They all cover the same material, more or

less in the same order.)

**Lectures:** The lectures are scheduled for 8:00 - 8:50 am on Mondays and Fridays and 8:00 - 9:50

am on Wednesdays in 343 Alumni Hall. The lectures will be given via Zoom (in Canvas) until January 27, according to the current University guidelines. The lectures will be delivered synchronously and recorded using Zoom and will be available asynchronously afterwards on Canvas. There will also be many short (about 5 minutes each) lecture videos available on Canvas, made by Dr. David Nero, which you are welcome to view if you wish. You should read the assigned sections in the textbook and/or view the lecture videos before lecture. There will be concept quizzes (reading quizzes) to try to identify which aspects of the material you understand and which should be emphasized during the lectures. Long uninterrupted lectures are known to not be very effective for learning, so I would like the lectures to be focused and relatively brief episodes in the midst of student activities such as group problem solving, "clicker questions" using Top Hat, etc. Lecture activities will count for credit to the extent that performance can be recorded with the

available software.

**Homework:** Homework will be assigned weekly using Achieve. It is your responsibility to do the

homework before your recitation section as preparation for the weekly quizzes. Understanding the concepts and applying them to solve problems are essential for successful performance on the quizzes and exams. To access Achieve, see the

instructions on Canvas.

### **Recitation:**

Your recitation section provides the opportunity to ask questions and discuss the material in a smaller group. You will also benefit from the alternative viewpoint of the recitation instructor. The intended format for the recitation is:

- Ouick review of recent material (5-10 minutes)
- Questions / discussion / problem solving (25-30 minutes). It is highly desirable that most of the recitation period be used for active learning. For example, the recitation instructor can break up the group into smaller groups to do work sheets or guided problems, or ask students to work out problems on the board.
- Weekly quiz (10-15 minutes)

Your recitation grade will be based on the quizzes. The recitation sections are:

M 9:00-9:50 am	11 Thaw (35)	Wenjie Huang
M 9:00-9:50 am	106 Allen (33)	Victoria Bonidie
F 9:00-9:50 am	11 Thaw (32)	Victoria Bonidie
F 11:00-11:50 am	105 Allen (27)	Victoria Bonidie

## Canvas Site:

There is a Canvas site associated with this course. It can be accessed through your my.pitt.edu account. This site will be used to make important announcements and to make materials available such as lecture recordings with slides, videos, quizzes, announcements, tutorials, etc. Homework will be handled using Achieve, independent of Canvas (not synced).

**Examinations:** There will be three 50-minute in-class examinations, given during regular lecture periods. The scheduled dates, all Wednesdays, are February 9. March 2, and April 6. There will be a final exam, but the date/time has not yet been set by the University.

# **Grading:**

Your letter grade will be based on the following percentages:

<ul> <li>In-class Exams</li> </ul>	40%
<ul> <li>Final Exam</li> </ul>	20%
<ul> <li>Homework (Achieve)</li> </ul>	10%
<ul> <li>Recitation Quizzes</li> </ul>	10%
<ul> <li>Reading Quizzes</li> </ul>	10%
• Top Hat Lecture Questions	10%

Roughly, A: 90 - 100%, B: 75 - 90%, C: 60 - 75%, etc., although some fine tuning is likely

# Help:

There are many resources available for help in addition to the regular office hours of the instructor and teaching assistant. These include:

- "Resource Room" (on line or in person): This "room" is staffed by graduate student teaching assistants for the introductory physics and astronomy courses. The hours will be posted on the departmental website. Click on "Resource Room" at the link http://www.physics.pitt.edu/resource-room.
- UTA Peer Tutors (We don't have one at this time.)
- Resources: https://www.studentaffairs.pitt.edu/drs/resources/ There are lots of links in the yellow rectangle at the top of the screen.
- If you wish to hire a private tutor, contact the Physics departmental office, 100 Allen Hall.

## **Academic Integrity**

*Include repercussions for failure to adhere to policy.* 

Students in this course will be expected to comply with the University of Pittsburgh's Policy on Academic Integrity. Any student suspected of violating this obligation for any reason during the semester will be required to participate in the procedural process, initiated at the instructor level, as outlined in the University Guidelines on Academic Integrity. This may include, but is not limited to, the confiscation of the examination of any individual suspected of violating University Policy. Furthermore, no student may bring any unauthorized materials to an exam, including dictionaries and programmable calculators.

To learn more about Academic Integrity, visit the Academic Integrity Guide for an overview of the topic. For hands-on practice, complete the Understanding and Avoiding Plagiarism tutorial.

# **Disability Services**

If you have a disability for which you are or may be requesting an accommodation, you are encouraged to contact both your instructor and Disability Resources and Services (DRS), 140 William Pitt Union, (412) 648-7890, drsrecep@pitt.edu, (412) 228-5347 for P3 ASL users, as early as possible in the term. DRS will verify your disability and determine reasonable accommodations for this course.

# **Health and Safety Statement**

In the midst of this pandemic, it is extremely important that you abide by public health regulations and University of Pittsburgh health standards and guidelines. While in class, at a minimum this means that you must wear a face covering and comply with physical distancing requirements; other requirements may be added by the University during the semester. These rules have been developed to protect the health and safety of all community members. Failure to comply with these requirements will result in you not being permitted to attend class in person and could result in a Student Conduct violation. For the most up-to-date information and guidance, please visit coronavirus.pitt.edu and check your Pitt email for updates before each class.

### **Diversity and Inclusion**

The University of Pittsburgh does not tolerate any form of discrimination, harassment, or retaliation based on disability, race, color, religion, national origin, ancestry, genetic information, marital status, familial status, sex, age, sexual orientation, veteran status or gender identity or other factors as stated in the University's Title IX policy. The University is committed to taking prompt action to end a hostile environment that interferes with the University's mission. For more information about policies, procedures, and practices, see: <a href="http://diversity.pitt.edu/affirmative-action/policies-procedures-and-practices">http://diversity.pitt.edu/affirmative-action/policies-procedures-and-practices</a>. ask that everyone in the class strive to help ensure that other members of this class can learn in a supportive and respectful environment. If there are instances of the aforementioned issues, please contact the Title IX Coordinator, by calling 412-648-7860, or e-mailing titleixcoordinator@pitt.edu. Reports can also be filed online: <a href="https://www.diversity.pitt.edu/make-report/report-form">https://www.diversity.pitt.edu/make-report/report-form</a>. You may also choose to report this to a faculty/staff member; they are required to communicate this to the University's Office of Diversity and Inclusion. If you wish to maintain complete confidentiality, you may also contact the University Counseling Center (412-648-7930).

### **Copyright Notice**

These materials may be protected by copyright. United States copyright law, 17 USC section 101, et seq., in addition to University policy and procedures, prohibit unauthorized duplication or retransmission of course materials. See Library of Congress Copyright Office and the University Copyright Policy.

## **Statement on Classroom Recording**

To ensure the free and open discussion of ideas, students may not record classroom lectures, discussion and/or activities without the advance written permission of the instructor, and any such recording properly approved in advance can be used solely for the student's own private use.

### **Take Care of Yourself**

Do your best to maintain a healthy lifestyle this semester by eating well, exercising, avoiding drugs and alcohol, getting enough sleep, and taking time to relax. Despite what you might hear, using your time to take care of yourself will actually help you achieve your academic goals more than spending too much time studying. All of us benefit from support and guidance during times of struggle. There are many helpful resources available at Pitt. An important part of the college experience is learning how to ask for help. Take the time to learn about all that's available and take advantage of it. Ask for support sooner rather than later – this always helps. If you or anyone you know experiences any academic stress, difficult life events, or difficult feelings like anxiety or depression, we strongly encourage you to seek support. Consider reaching out to a friend, faculty or family member you trust for assistance connecting to the support that can help.

The University Counseling Center is here for you: call 412-648-7930 and visit their website.

If you or someone you know is feeling suicidal, call someone immediately, day or night:

University Counseling Center (UCC): 412 648-7930

University Counseling Center Mental Health Crisis Response: 412-648-7930 x1

Resolve Crisis Network: 888-796-8226 (888-7-YOU-CAN)

If the situation is life threatening, call the Police:

On-campus: Pitt Police: 412-268-2121

Off-campus: 911