

Syllabus for PHYS 0111

Introduction to Physics 2

Fall 2017

Course Information

CRN 10532
Location Alumni Hall 343
Lecture Monday, Wednesday and Friday 1:00 – 1:50pm
Text *Physics, Custom Edition* by Cutnell & Johnson



Instructor Russell J. Clark, Ph.D.
Phone 412-624-9204
email ruc2@pitt.edu
Office OEH 404
Office hours Monday: 7:00am – 8:00pm
Tuesday: 2:00pm – 4:00pm
Wednesday: 3:00pm – 4:00pm
Thursday: 3:00pm – 4:00pm
Friday: 7:00am – 8:00am
Other times by appointment: <http://tinyurl.com/Russell-Clark-Appointments>

Course Description and Objectives

This course is the second half of a two semester, algebra based introductory physics course. The first half is Physics 0110, *Introduction to Physics 1*. You should have successfully completed Physics 0110 or its equivalent with a C or better before enrolling in this course. The goal of the course is to learn physics and to develop the skills of critical thinking and problem solving. In particular, you will learn to apply the principles of

- Thermodynamics (chapters 14-15)
- Electricity (chapters 18-19)
- Electronics (chapters 19-20)
- Magnetism (chapter 21)
- Electromagnetic induction (chapter 22)
- Light and electromagnetic waves (chapter 24)
- Optics (chapters 25-27)
- Modern Physics (chapters 29-32, time permitting)

Attendance is mandatory in both the lectures and the recitations.

Text and Materials

The textbook for this course is *Physics, Custom Edition* by Cutnell and Johnson. Used versions of this textbook, including older or non-custom editions are fine. In addition, you will need a scientific calculator with trigonometric, logarithmic and exponential functions.

Important Dates:

Month	Date	Day	
September	4	Monday	Labor Day, no class or recitation
October	2	Monday	Exam 1
October	9	Monday	Fall Break, no class or recitation
October	10	Tuesday	Monday classes and recitations meet on Tuesday
October	18	Wednesday	Meet in Scaife Hall, Auditorium 6
October	20	Friday	Meet in Scaife Hall, Auditorium 6
November	6	Monday	Exam 2
November	22	Wednesday	Thanksgiving Break, no class or recitation
November	24	Friday	Thanksgiving Break, no class or recitation
December	8	Friday	Last day of classes
December	11	Monday	Final Exam (4:00-5:50pm)

Course Grades

Your grade in this course will be based on questions asked in the lecture, the homework assignments, recitation quizzes and exams. These grades will be weighted according to the table below.

Lecture Questions	10%
Recitation Quizzes	10%
Homework	20%
Exam 1	20%
Exam 2	20%
Final Exam	20%

Lecture Questions: The lecture hall is equipped with hand-held radio transmitters, called clickers, used by the students to answer multiple choice questions. At the beginning of the semester you will be assigned a number that corresponds to a particular clicker and you will use that same clicker throughout the semester. The clickers will be stored in bins on carts at the front of the room so that you may pick up your clicker as you enter the hall and then place it back there as you leave. **Do not take your clicker out of the classroom!** The clickers in the lecture hall will not work with other SPS systems on campus.

Please observe the following rules for the clickers:

1. Memorize your clicker number and where it is located on the cart.
2. Pick up your clicker as you enter the classroom.
3. If your clicker is missing, check nearby bins as it may have been misplaced. If you still cannot find it then record this on the clicker sheet.
4. **Do not pick up a clicker that is not assigned to you or use more than one clicker (such as when a friend is absent).**
5. Answer the multiple choice questions by pushing the appropriate key on your clicker.
6. Record any sort of technical issue with your clicker (such as a dead battery, error light, etc.) on the clicker sheet at the end of class.
7. **Place the clicker back in the proper bin at the end of lecture.**

During the lectures the instructor may pose multiple choice questions. You will be given some time to think about each question and discuss it with your neighbors. During this time the SRS receiver will pick up all of the responses and tally the results. The questions are intended to motivate discussion with your

PHYS 0111 Introduction to Physics 2, Fall 2017

peers and to provide the instructor with feed-back on how well you understand the material. You will receive full credit (100%) for each correct answer, 80% for each incorrect answer, and 0% for no response.

Exams: There are two exams during the semester and a final exam (see the schedule for the dates). Each exam, including the final, is worth 20% of the course grade.

Homework: Problem solving skills are important to learning and understanding physics and so homework is an important part of this course. This course will employ the LON-CAPA online homework system:

<http://homework.phyast.pitt.edu/>

Even though your username for this system is the same as your Pitt email account, LON-CAPA is independent of the university computer system. Therefore your initial password will be your PeopleSoft number which is available through my.pitt.edu. If you have used LON-CAPA in a previous course, then your password is the same as it was before. If you have any trouble logging into the system then click "Forgot Password?" on the login screen and follow the instructions there. Please contact Dr. Clark or your TA if you have any questions about using the system.

Each problem in LON-CAPA is generated uniquely for each student in the course. Therefore the problems assigned to you will be similar, but not identical, to problems assigned to other students. Each problem has a discussion board and you are encouraged to use this feature to ask questions and offer insights to other students. The discussion boards will be monitored by Dr. Clark and the TA. **You MAY NOT post solutions to the problems on the discussion board! Posting a solution to a problem will be considered an academic integrity violation and will result in disciplinary action.**

A homework set will be assigned immediately after each lecture and it will be due the following week. No assignments will be due on the day of an exam.

If you have any questions about the homework problems then contact your TA or Dr. Clark. You may also find help in the Physics Help Room (Thaw 312) and at the ARC - Academic Resource Center (GSCC G-1).

Getting Help

The Department of Physics and Astronomy provides free assistance for all students. The **Physics Help Room** is staffed with TAs who can answer homework related questions, explain basic concepts and help you with the math. This is a free service and you are encouraged to use it. The Physics Help Room is located in Thaw 312 (<http://www.physicsandastronomy.pitt.edu/resource-room>).

Peer assistance is available from undergraduate teaching assistants (UTAs) in the UTA Help Room for this course (<http://www.physicsandastronomy.pitt.edu/uta-help-room-304-oe>).

In addition, tutoring may be available through the Academic Resource Center (<http://www.asundergrad.pitt.edu/arc>).

Courseweb

The University of Pittsburgh provides an online portal for classes called Courseweb. Here you will find relevant course material such as a copy of the syllabus, sample exams, etc. You may also view your grades online through this site.

<http://courseweb.pitt.edu>

Grade Change Policy

Grade cutoffs are chosen to be as fair as possible but ultimately the line has to be drawn somewhere and it has to be drawn straight. Extra credit opportunities will not be offered to individual students. Once your final grade for the semester has been submitted to the Registrar it will not be changed unless there is a verifiable error in the grade book, such as a missing grade or a grade that was entered incorrectly. You can check all of your course grades at any time on Courseweb (<http://courseweb.pitt.edu>).

Academic Integrity

All students are expected to adhere to the standards of academic honesty. Any student engaged in cheating, plagiarism, or other acts of academic dishonesty would be subject to disciplinary action. 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 (<http://www.provost.pitt.edu/info/acguidelinespdf.pdf>). This may include, but is not limited to the confiscation of the examination of any individual suspected of violating the University Policy.

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, 216 William Pitt Union, (412) 648-7890/(412) 383-7355 (ITY), as early as possible in the term, DRS will verify your disability and determine reasonable accommodations for this course.

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.