# SYLLABUS Basic Physics for Science and Engineering 1 (0174)

Instructor:	Hanna Salman
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Office hours:	Wednesday 1:00 – 3:00 pm (or by appointment by email)

Lectures: Monday & Wednesday

6:00 – 7:40 pm

343 Alumni Hall

Teacher Assistant: Evan Harris Office: 108B old Engineering Hall e-mail: <u>evh18@pitt.edu</u> Office hours: 2:00 – 3:00 pm Monday and Wednesday

Teacher Assistant: Ryan LeFebre Office: 500 Allen Hall e-mail: <u>rwl23@pitt.edu</u> Office hours: 12:00 – 1:00 pm Tuesday and Thursday

## **Recitations:**

Class #	Time	Location	
11184	Monday 8:00 – 8:50 pm	343 Alumni Hall	Harris
17289	Wednesday 5:00 – 5:50 pm	343 Alumni Hall	Harris
22691	Wednesday 5:00 – 5:50 pm	11 Thaw Hall	LeFebre
11185	Wednesday 8:00 – 8:50 pm	343 Alumni Hall	LeFebre

# **COURSE DESCRIPTION**

This course is the first of an *intensive* two-term (8-credit) introductory physics course sequence.

The Topics that we will cover in this course are:

- 1) Kinematics
- 2) Classical (Newtonian) mechanics
- 3) Waves (definitions and basic phenomena)

## Tentative Schedule:

Week	Торіс
1	1-d motion with constant acceleration
2	Vectors
3	2 & 3 – d motion, forces
4	Newton's Laws
5	Friction & Drag
6	Work and Energy
7	Work and Potential Energy
8	Midterm review and Midterm
9	Center of Mass, Torque and Generalized Equilibrium
10	Conservation of Linear Momentum
11	Angular Motion and Inertia
12	Rolling and Angular momentum
13	Gravity and Simple Harmonic Motion
14	Waves I
15	Waves II

# **TEXT BOOK**

"Fundamentals of Physics", 11th edition Authors: Halliday, Resnick, and Walker

## HOMEWORK

Homework assignments will be done online using sapling learning. You will need to register and then you will have access to the weekly assignments. To use the website, follow the following instructions:

- Go to www.saplinglearning.com/login to log in or create an account.
- Under Enroll in a new course, you should see Courses at [Your College]. Click to expand this list and see courses arranged by subject. Click on a subject to see the terms that courses are available.
- Click on the term to expand the menu further (note that Semester 1 refers to the first course in a sequence and not necessarily the first term of the school year).
- Once the menus are fully expanded, you'll see a link to a specific course. If this is indeed the course you'd like to register for, click the link.
- Review the <u>system requirements</u> and confirm that Flash is updated and enabled in your browser.
- Need Help? The technical support team can be reached by phone, chat, or by email via the Student Support Community. To contact support please open a service request by filling out the webform:

https://macmillan.force.com/macmillanlearning/s/contactsupport.

The following link includes more detailed instructions on how to register for your course: <u>https://macmillan.force.com/macmillanlearning/s/article/Sapling-Learning-Registering-for-courses</u>.

Once you have registered and enrolled, you can log in at any time to complete or review your homework assignments. During sign up or throughout the term, if you have any technical problems or grading issues, send an email to support@saplinglearning.com explaining the issue. The Sapling Learning support team is almost always faster and better able to resolve issues than your instructor.

The homework will be graded automatically by the website. The solution of each assignment will be posted on the same website after the due date.

# EXAMS

There will be 1 written midterm on **October 16<sup>th</sup>** during class hours. The final will be scheduled later during the term.

## **FINAL GRADE**

Your final grade will be made of the following:	
Online assignments	30%
Recitation Quizzes	10%
Midterm (if higher than final)	20%
Final	40%

## STUDY ASSISTANCE:

Students who need additional help are **strongly encouraged** to see the lecturer or their recitation instructor during their regular office hours or make an individual appointment at a mutually convenient time.

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

## **Tutoring Services**

The ARC's peer tutoring services offer free tutoring to all students enrolled in Physics 174 &175. The center is open Monday through Friday from 9am to 4pm. Tutoring sessions are generally one hour long, and students are encouraged to make an appointment in advance. To schedule a one-on-one appointment, call 412-648-7920, or stop by the tutoring office at G-1 Gardner Steel Conference Center. Drop-in tutoring is also available on the ground floor of Hillman library. There is no limit to how many hours of drop-in tutoring you may use. For the drop-in tutoring schedule and more information about other services, please visit the ARC website.

# **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 (<u>http://www.provost.pitt.edu/info/acguidelinespdf.pdf</u>). 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 the Office of Disability Resources and Services (DRS), 216 William Pitt Union, (412) 648-7890 (<u>https://www.studentaffairs.pitt.edu/drs/about/</u>), 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.

## CODE OF CONDUCT

Communication is key to a productive learning environment, and we can maintain productive communication by exhibiting respect for one another. The success of the course for yourself and others depends on all of our commitment to behavior that demonstrates respect for differences, understanding towards others and a willingness to listen and learn. For these reasons, it is unacceptable to harass, discriminate against, or abuse anyone because of race, ethnicity, gender, disability, religious affiliation, sexual orientation, or age. If you witness or are subject to such harassment, please report it to the instructor or to the <u>Office of Diversity and Inclusion</u>.

# TITLE IX

Legal text: "No person in the United States shall, on the basis of sex, be excluded from participation in, be denied the benefits of, or be subjected to discrimination under any education program or activity receiving Federal financial assistance."

As a professor I am a mandatory reporter, and I am required to report violations of Title IX that I observe or am made aware of to the <u>Title IX office</u>. Title IX violations include, but are not limited to, sexual harassment, sexual violence and verbal or sexual abuse. Within the classroom, behavior in violation might appear as: suggestive jokes or innuendos, inappropriate touching, and unwanted sexual behavior or advances, but **my capacity and obligation to report does not end at the classroom**.

Note: Updates and additional notes will be posted on the courseweb.