

2013

160-01-02-03-04 College Physics I

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College Physics I

PHY 160– Fall 2013

Instructors:

Dr. Justin J. Link
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Office: LND 108
Phone: 745-2854
Hours: MW 9:15-10:15AM,
T 10-11 & by appt.

Dr. Jonathan Morris
morrisd3@xavier.edu
Office: LND 107
Phone: 745-3633
Hours: TR 10-11, W 1:30-2:30
& by appt.

Course Description: This is an algebra based introductory physics class for students primarily in health professional studies. Topics such as linear and circular motion, Newton's Laws, energy, momentum, conservation laws, static equilibrium, gravitation, and fluid mechanics will be covered. This course fulfills 3 of the 9 core science elective credit hours required in the university core and is a pre-requisite of PHYS 162. Students are expected to have a solid working knowledge of fundamental algebra.

Course Objectives: After completing this course, students should:

- Have a conceptual understanding of linear and circular motion, Newton's Laws, energy, momentum, conservation laws, static equilibrium, gravitation and fluid mechanics in a manner that fosters critical thinking and problem solving skills.
- Be able to apply the ideas discussed in the course to solve qualitative and quantitative problems.
- Have a greater appreciation for the rigor, meticulousness, and applications of the discussed scientific material.
- Experience the satisfaction of realizing that physics is everywhere in our daily lives.

Text: Physics: Principles with Applications, 7th Edition by Giancoli and a companion resource can be found on MasteringPhysics[®]. Homework problems, practice problems, problem solutions, lecture notes, equation sheets, syllabi, and other appropriate materials will be available on our course webpage in Canvas: <http://canvas.xavier.edu>

Homework: We will be using online homework supplied by MasteringPhysics[®]. You can access the site through your course webpage or www.masteringphysics.com. Instructions to login are found on your course webpage and the course ID is PHYS160F13. You are responsible for completing each assignment on the due date by 8am and no late homework will be accepted, however, extra credit will be made available. Homework solutions to the end of chapter problems will be posted on your course webpage. You are encouraged to explore the homework in a group setting but each student is responsible for their own assignment. You are strongly encouraged to work out and show all steps for each problem on a separate sheet of paper and keep it so that you have it to study with for tests.

The instructor reserves the right to alter this syllabus if circumstances dictate

Online solutions may become available and you may be tempted to use them to assist you in your homework, however, I highly suggest for you not to do so. I have seen students use them and they do not struggle on homework and therefore struggle for the first time on a test. This method is setting yourself up for failure from the start! So, please do not use the online solutions when you complete your homework, it will not get you very far in your knowledge of physics.

Practice Problems: These problems will be assigned in MasteringPhysics[®] but not collected for credit. Solutions to the end of chapter problems will be posted on your Canvas course webpage.

Online Responses: MasteringPhysics[®] will be used for online responses to questions/topics covered in assigned readings. The responses will be every weekend and are due at 2 AM on the first day of the week. Typically, they will be posted Friday but you will always have at least 30 hours to post a response. An email will be sent informing you of the posted response. Responses will be graded for completion and 13 out of 15 must be completed to obtain full credit.

Tests and Final Exam Policy:

Tests and the final exam (comprehensive) will cover material, problems and concepts presented in lectures, assigned for homework, online responses and practice problems.

Under conditions of hardship, a student who misses an exam or fails to turn in homework must submit a full written and signed explanation for their absence (including appropriate documentation) in a timely fashion. Failure to make prompt notification will lead to an unexcused absence regardless of the validity of the excuse. If the absence from an exam is excused, the student will be allowed to use the grade on the final exam to substitute for the missing grade. If a homework is not turned in due to an excused reason, it will not be used to factor the final homework value.

If you cannot turn in a homework or take an exam due to a conflict with a University sponsored event that you are required to attend, you must notify me prior to the event so that suitable arrangements can be made.

Tentative test dates and material: Sept. 20 (Chpts 2&3), Oct. 16 (Chpts 4&5),
Nov. 13 (Chpts 6&7), Final (Cumulative & Chpts 8-10)

Final exam date:

9:00 Section: 8:00-9:50, Wednesday, December 18th
10:00 Section: 10:00-11:50, Monday December 16th
11:00 section: 10:00 – 11:50, Wednesday, December 18th
12:00 section: 12:00 – 1:50, Monday, December 16th

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Grading: Semester grades will be based on:

Homework	10%
Online Responses	5%
Tests	60% (20% each)
Final exam	25%

The homework value is based on the percentage of total possible homework points that you receive. The exam values are based on your score, but may be adjusted using a curve. Your total grade for the course is weighted as listed above and follows the grading scale below.

	87.0-89.9 B+	77.0-79.9 C+	67.0-69.9 D+
93.0-100 A	83.0-86.9 B	73.0-76.9 C	60.0-66.9 D
90.0-92.9 A-	80.0-82.9 B-	70.0-72.9 C-	0-59.9 F

Class Attendance, Communication, & Academic Misconduct: Attendance, though not taken, is mandatory. You are responsible for the information presented in the lectures and for any assignments made during the class time. If you are late to class or absent, you are responsible for obtaining any pertinent information that was given during class. All email correspondence **must** be from your Xavier University account. No grades will be discussed via email. Academic misconduct will not be tolerated and disciplinary action will be pursued according to the student handbook.

Any student who feels s/he may need an accommodation based on the impact of a documented disability should contact the Learning Assistance Center at 513-745-3280 on the Fifth Floor of the Conaton Learning Commons, Room 514, to coordinate reasonable accommodations. Further information can be found at <http://www.xavier.edu/lac/>

Additional Material: Supplemental material will be supplied for your learning assistance on your Canvas course webpage.

Optional Physics Study Groups: A pilot program is taking place this semester for OPTIONAL study groups. They will be led by former PHYS 160 students and will be closely coupled to the course material. Once again, these are optional but we encourage you to attend if possible. The study groups are as followed, if you cannot make the offered time for your section, feel free to attend another selected time.

<u>Section</u>	<u>Day</u>	<u>Time</u>	<u>Location</u>	<u>Leader</u>
PHYS 160-01	Tuesday	5:30-6:30PM	TBA	Kyle Grim
PHYS 160-02	Thursday	5:00-6:00PM	TBA	Kyle Grim
PHYS 160-03	Wednesday	5:00-6:00PM	TBA	Michael Petraný
PHYS 160-04	Thursday	8:00-9:00PM	TBA	Michael Petraný

Courtesy: Please leave your cell phones and ipods turned off during class. Please try not to leave the room during class unless it is a real emergency.

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