2014

160-01 College Physics I

Gregory Braun

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College Physics I  
PHY 160– Fall 2014

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Please check with your instructor for their office hours! We’re here to help.

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 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. Homework problems, practice problems will be assigned via Mastering Physics (found via a link on Canvas). Syllabus, problem solutions, lecture notes, 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 our course Canvas webpage. Instructions to login have been sent out in a Canvas message and the instructions are linked to via the Canvas website. You are responsible for completing each assignment prior to the due date and no late homework will be accepted. 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.

Page 1 – The instructors reserve the right to alter the syllabus if required
Practice Problems: These problems will be assigned in MasteringPhysics® (found via Canvas) but not be graded. Solutions to the practice problems will be posted on your Canvas course webpage.

Online Responses: Canvas will be used for quizzes and online responses to questions/topics related to the course material. 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.

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. 19 (Chpts 2&3), Oct. 15 (Chpts 4&5), Nov. 12 (Chpts 6&7), Final (Cumulative & Chpts 8-10)

Mid-semester test dates are liable to change and this will be announced in class!

Final exam date:
9:00am Section: 8:00am-9:50am, Friday, December 19th 2014
10:00am Section: 10:00am-11:50am, Wednesday December 17th 2014
1:00pm section: 10:00am–11:50am, Friday, December 19th 2014
2:00pm section: 2:00pm–3:50pm, Wednesday, December 17th 2014

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.

<table>
<thead>
<tr>
<th>Grade</th>
<th>Percentage Range</th>
<th>Letter Grade</th>
</tr>
</thead>
<tbody>
<tr>
<td>87.0-89.9</td>
<td>B+</td>
<td>77.0-79.9</td>
</tr>
<tr>
<td>90.0-92.9</td>
<td>A-</td>
<td>80.0-82.9</td>
</tr>
<tr>
<td>93.0-100</td>
<td>A</td>
<td>83.0-86.9</td>
</tr>
<tr>
<td>67.0-69.9</td>
<td>D+</td>
<td>60.0-66.9</td>
</tr>
<tr>
<td>77.0-79.9</td>
<td>C+</td>
<td>70.0-72.9</td>
</tr>
<tr>
<td>0-59.9</td>
<td>F</td>
<td></td>
</tr>
</tbody>
</table>

Class Attendance, Communication, & Academic Misconduct: Attendance, though not taken, is mandatory. You are responsible for making sure that you receive the information presented in the lectures, pay attention during class 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/](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 program is taking place this semester for OPTIONAL study groups; these groups are very similar to the SI programs that you may know. The sessions will be led by two former PHYS160 students; Adam Price and Katie Copp. You will work through unique problems that are closely coupled to the course material. Once again, these are optional but we encourage you to attend.

We will announce the schedule for these sessions in the first two weeks of class. Please listen out for that information.

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. Try not to distract other students during class time or during exams.