College Physics II
PHYS 162 – Spring 2014

Instructors:
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Office: LND 107
Phone: 745-3633
Hours: M 1:30-3PM, W: 3:30-5PM

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Phone: 745-2854
Hours: TBA

Course Description: This is an algebra based introductory physics class for students in health professional studies. Topics include waves, sound, electricity, magnetism, and light. This course fulfills 3 of the 9 core science elective credit hours required in the university core and is a continuation of PHYS 160. The pre-requisites for this class are a minimum of a D grade for PHYS160 or an equivalent course. 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 waves, sound, electricity, magnetism, light, and nuclear physics 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 blackboard course page or www.masteringphysics.com. Instructions to login are found on your course webpage and the course ID is PHYS162S14. 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 blackboard. 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 on a separate sheet of paper which will assist you in studying 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, we highly suggest for you not to do so. We 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 blackboard. You should begin your homework by looking at the practice problems and the problems in the book BEFORE you begin your homework. These problems may assist you in completing your homework more efficiently.

**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 question. 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 take a make-up exam or to use the grade on the final exam to substitute for the missing grade. The make-up exam will be given during the last week of the semester and can substitute for any missed exam. The make-up exam will be comprehensive and will cover material through the third exam. Alternatively, you may choose to substitute the grade on the final for the missed exam. 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.

**Final exam date:**
- 9:00 Section: 8:00-9:50, Friday, May 9th
- 10:00 Section: 10:00-11:50, Wednesday, May 7th
- 11:00 Section: 10:00 – 11:50, Friday, May 9th
- 12:00 Section: 12:00 – 1:50, Wednesday, May 7th

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**Tentative test dates:** Feb. 3 (Chpts 11, 12), Feb. 28 (Chpts 16, 17, 18),
April 7 (Chpts 19, 20, 21), Final (Cumulative & Chpts 22, 23, 24, 25, 30)

**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</th>
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<tbody>
<tr>
<td>A</td>
<td>93.0-100</td>
</tr>
<tr>
<td>A-</td>
<td>90.0-92.9</td>
</tr>
<tr>
<td>B</td>
<td>87.0-89.9</td>
</tr>
<tr>
<td>B-</td>
<td>80.0-82.9</td>
</tr>
<tr>
<td>C</td>
<td>77.0-79.9</td>
</tr>
<tr>
<td>C-</td>
<td>70.0-72.9</td>
</tr>
<tr>
<td>D</td>
<td>67.0-69.9</td>
</tr>
<tr>
<td>D-</td>
<td>60.0-66.9</td>
</tr>
<tr>
<td>F</td>
<td>0-59.9</td>
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**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/](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:** The OPTIONAL study groups will continue this semester. They will be led by former PHYS 162 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.

<table>
<thead>
<tr>
<th>Day</th>
<th>Time</th>
<th>Location</th>
<th>Leader</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tuesday</td>
<td>7:00-8:00PM</td>
<td>TBA</td>
<td>Kyle Grim</td>
</tr>
<tr>
<td>Wednesday</td>
<td>7:00-8:00PM</td>
<td>TBA</td>
<td>Michael Petrany</td>
</tr>
<tr>
<td>Thursday</td>
<td>6:00-7:00PM</td>
<td>TBA</td>
<td>Michael Petrany</td>
</tr>
<tr>
<td>Thursday</td>
<td>7:00-8:00PM</td>
<td>TBA</td>
<td>Kyle Grim</td>
</tr>
</tbody>
</table>

Please check your emails for messages from Michael and/or Kyle.

**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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