2013

140-02 Technical Physics

Amy Bosch
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Technical Physics  
PHY 140-02  
TR 8:30-9:20  
LOG 105

Instructor: Amy Bosch  
Office: LND 106  
Phone: 513-745-4297  
E-Mail: boschaj@xavier.edu  
Office Hours: Monday 9-10, Tuesday 12-12:30, Wednesday 12-1; Thursday 9:30-10. I am not on campus on Fridays.

Student Learning Outcomes: As a core science course, a major goal of this course is to promote critical thinking. Students will evaluate the use of science and mathematics in society and everyday life in an informed manner. Students will explain the scientific method, including the difference between hypotheses, theories and laws. Students will utilize mathematical and logical reasoning and the language of mathematics with its own symbols, syntax, and semantics.

Text: The Physics of Everyday Phenomena 7th edition by Griffith. There will also be files posted to our Blackboard page for your use.

Course Content: This is an algebra based physics class for students in the Radiologic Technology Program. We will be studying linear and circular motion, Newton’s laws, energy, momentum, static equilibrium, gravitation, and fluid mechanics. A working knowledge of high school algebra is assumed.

Homework: Homework will be assigned in class. Solve the problems carefully, showing each step. You are encouraged to explore the homework as a group. However, you are required to write homework solutions in your own words. No credit will be given for homework which is turned in late more than one class period late.

Quizzes: Four quizzes will be given during the semester. The tentative dates are Thursday, September 5; Thursday, October 3; Thursday, October 31; and Tuesday, December 3.

Tests: Three tests will be given during the course of the semester. Tests must be taken when scheduled. A legitimate written excuse must be provided before any make-up test will be considered. There will be at most one make-up exam per student. A comprehensive final exam will be given during finals week. Tentative test schedule:

Test 1: Thursday, September 19
Test 2: Thursday, October 17
Test 3: Thursday, November 14
Final Exam: Tuesday, December 17, 8:30-10:20

Class Attendance: Attendance is expected for all classes.

Grading: Semester grades will be based on:

<table>
<thead>
<tr>
<th>Component</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Homework</td>
<td>5%</td>
</tr>
<tr>
<td>Quizzes (4)</td>
<td>5% each</td>
</tr>
<tr>
<td>Test with lowest score</td>
<td>10%</td>
</tr>
<tr>
<td>Remaining two tests</td>
<td>20% each</td>
</tr>
<tr>
<td>Final Exam</td>
<td>25%</td>
</tr>
</tbody>
</table>
Grades will be assigned on the following scale:

<table>
<thead>
<tr>
<th>Range</th>
<th>Grade</th>
</tr>
</thead>
<tbody>
<tr>
<td>93-100 A</td>
<td>90-92 A-</td>
</tr>
<tr>
<td>87-89 B+</td>
<td>83-86 B</td>
</tr>
</tbody>
</table>

**Courtesy:** Please leave your cell phones, i-Pods, etc. turned off during class.

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