Physics for Science and Engineering II
Physics 202
Winter 2008 Syllabus

Instructor
- Frank Skorina
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Course Description
This course is the second in a three part series that introduces basic physics concepts. This course will use mathematics to model physical behaviors so algebra and trigonometry will be used heavily. Knowledge of calculus is required.

Specifically, this course will cover gravity, rotation, oscillations, fluids, thermodynamics, and waves. This course lays the foundation for engineering courses in dynamics, mechanics of materials, fluid mechanics, thermodynamics, heat transfer, and wave mechanics.

Class Schedule
- Mondays, Room 225, 12:30 pm – 1:20 pm
- Tuesdays, Room 225, 12:30 pm – 1:20 pm
- Wednesdays, Room 241, 12:30 pm – 1:20 pm
- Thursdays, Room 225, 12:30 pm – 2:20 pm (labs)
- Fridays, Room 225, 12:30 pm – 1:20 pm
- No class on Monday, January 21 (Martin L. King Day)
- No class on Monday, February 18 (Presidents' Day)
- No class on Wednesday, March 5 (Advising Day)
- Last class is on Tuesday, March 18
- Final exam is on Friday, March 21, Room 225, 12:30 pm – 2:20 pm

Materials
- Physics for Scientists and Engineers, First Edition by Randall D. Knight
- Mastering Physics on-line homework system
- Scientific calculator

Accommodations
If you have a disability and need accommodations, please see the instructor after class or contact Claudia Angus, Coordinator of Disability Support Services at 527-4262.
Grading
- Homework, 15%
- Labs, 20%
- Exams, 65%
- Grade Table where \( x \) is the percent of points earned:

<table>
<thead>
<tr>
<th>Grade</th>
<th>( x ) range</th>
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<tbody>
<tr>
<td>A</td>
<td>( \infty \geq x \geq 93 )</td>
</tr>
<tr>
<td>A-</td>
<td>( 93 &gt; x \geq 90 )</td>
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<tr>
<td>B</td>
<td>( 87 &gt; x \geq 83 )</td>
</tr>
<tr>
<td>B-</td>
<td>( 83 &gt; x \geq 80 )</td>
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<tr>
<td>C</td>
<td>( 77 &gt; x \geq 73 )</td>
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<tr>
<td>C-</td>
<td>( 73 &gt; x \geq 70 )</td>
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<tr>
<td>D</td>
<td>( 70 &gt; x \geq 67 )</td>
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<tr>
<td>D+</td>
<td>( 67 &gt; x \geq 60 )</td>
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<tr>
<td>F</td>
<td>( 60 &gt; x \geq -\infty )</td>
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Homework
- Components will be
  - MasteringPhysics website (approximately one assignment per chapter)
  - Conventional paper submitted homework
  - In-class assignments
- Homework grade depends mostly on effort and not results.

Labs
- Most Thursdays
- Required participation

Exams
- Four exams during the quarter
- Exam during finals week is not comprehensive.

Expectations
- Keep up with the material
- If you do not understand the material, take steps to understand it by
  1. Rereading the text and your notes
  2. Working with classmates
  3. Visiting the Science Learning Center
  4. Asking the instructor
Weekly Schedule
Week #1, January 7 – January 11
   Chapter 12 – Newton’s Theory of Gravity
   Chapter 13 – Rotation of a Rigid Body

Week #2, January 14 – January 18
   Chapter 13 – Rotation of a Rigid Body

Week #3, January 21 – January 25
   No class Monday, January 21
   Exam #1 on Thursday, January 24 (Chapters 12-13)
   Chapter 14 – Oscillations

Week #4, January 28 – February 1
   Chapter 14 – Oscillations
   Chapter 15 – Fluids and Elasticity

Week #5, February 4 – February 8
   Chapter 15 – Fluids and Elasticity
   Exam #2 on Wednesday, February 6 (Chapters 14-15)
   Chapter 16 – A Macroscopic Description of Matter

Week #6, February 11 – February 15
   Chapter 16 – A Macroscopic Description of Matter
   Chapter 17 – Work, Heat, and the First Law of Thermodynamics

Week #7, February 18 – February 22
   No class Monday, February 18
   Chapter 18 – The Micro/Macro Connection

Week #8, February 25 – February 29
   Chapter 19 – Heat Engines and Refrigerators

Week #9, March 3 – March 7
   Exam #3 on Tuesday, March 4 (Chapters 16-19)
   No class Wednesday, March 5
   Chapter 20 – Traveling Waves

Week #10, March 10 – March 14
   Chapter 20 – Traveling Waves
   Chapter 21 – Superposition

Week #11, March 17 – March 21
   Chapter 21 – Superposition
   Final Exam on Friday, March 21 (Chapters 20-21)

Disclaimer
Instructor reserves the right to make changes to this syllabus at any time.