Conceptual Physics
Physics 110
Spring 2013 Syllabus

Instructor
• Frank Skorina
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Room
• Walla Walla—Room 121
• Clarkston—Room 201, ITV

Course Description
This is a single-quarter course that serves as an introduction to physics. The course will
emphasize physics concepts and is light on computation. Light on computation still
means that knowledge of algebra is required. Motion, force, energy, and gravity will be
covered. At the end of the quarter, we will introduce relativity, where the speed of light
is always the same, but time is not. Where mass and energy are equivalent. Where
acceleration and gravity are indistinguishable. And where what you thought was
logical, is not.

Class Schedule
• Mondays, Wednesdays, Thursdays, and Fridays, 10:30 am – 11:20 am
• Tuesdays, 10:30 am – 12:20 pm (LABS)
• No class on Wednesday, May 15 (Advising Day)
• No class on Monday, May 27 (Memorial Day)
• Last Class on Tuesday, June 11
• Final on Wednesday, June 12 at 10:30 am

Materials
• Conceptual Physics, Tenth Edition by Paul G. Hewitt
• Calculator

Grading
• Homework, 0/5th
• Labs, 1/5th
• Quizzes, 0/5th
• Exams, 1/5th each
• Grade Table where x is the percent of points earned:

<table>
<thead>
<tr>
<th>Grade</th>
<th>93 ≤ x ≤ ∞</th>
<th>87 ≤ x &lt; 90</th>
<th>77 ≤ x &lt; 80</th>
<th>67 ≤ x &lt; 70</th>
</tr>
</thead>
<tbody>
<tr>
<td>A+</td>
<td></td>
<td>B+</td>
<td>C+</td>
<td>D+</td>
</tr>
<tr>
<td>A</td>
<td>90 ≤ x &lt; 93</td>
<td>B</td>
<td>C</td>
<td>D</td>
</tr>
<tr>
<td>A-</td>
<td>80 ≤ x &lt; 83</td>
<td>B-</td>
<td>C-</td>
<td>F</td>
</tr>
</tbody>
</table>

| 80 ≤ x < 83 | C- | 70 ≤ x < 73 | F | -∞ ≤ x ≤ 60 |
**Homework**
No homework will be assigned, but it is your responsibility to learn the material presented. At the end of each chapter are Review Questions, One-Step Calculations, Projects, Exercises, and Problems. Reviewing this material and asking me in class or out of class, (or at the science learning center) if you have any questions will enhance your learning experience. Doing homework on your own will also help with your quiz grades and ultimately your test grades and your class grade.

**Labs**
- Most Tuesdays
- Required participation
- Each lab grade will be based on attendance, a worksheet, and/or a lab report

**Quizzes**
I usually give a quiz at the end of class almost everyday, but due to the logistics with two locations and the large number of students in the class, I will do something different this quarter. At the end of most class periods I will give a problem or two. You will have a couple of minutes to think about this problem and make a written answer in your notebook, then we will discuss your answer. It is important to pay attention here. Many of these questions, or similar questions, will end of on the exams. I reserve the right to mix this up a bit. I may let you talk about it with a neighbor, or think about it overnight, or play a physics game, or even do something I have not thought about yet.

**Exams**
- Five exams during the quarter.
- Lowest exam score dropped.
- Last exam is comprehensive.

**Accommodations**
If you have a disability and need accommodations, please see the instructor after class or contact Claudia Angus, the Disabilities Coordinator at claudia.angus@wwcc.edu or 509-527-4543.

**Expectations**
- Attendance, everyday and on-time
  - You will take more quizzes, helping your quiz grade
  - You will know what concepts are emphasized
  - You will have a good idea what will be on the next day’s quiz
  - You may even learn more
- No use of cell phones or computers during class
  - Distracting for you and the rest of the class
- Pre-reading the material
  - So you have an idea what will be covered and can get your questions answered.
- Reading the material after class and attempting questions
- 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, April 1 – April 5
Chapter 2 – Newton’s First Law of Motion—Inertia
Chapter 3 – Linear Motion

Week #2, April 8 – April 12
Chapter 4 – Newton’s Second Law of Motion
No class Friday

Week #3, April 15 – April 19
  **Exam #1** on Wednesday, April 17 (Chapters 2-4)
  Lab on Thursday this week
Chapter 5 – Newton’s Third Law of Motion

Week #4, April 22 – April 26
Chapter 6 – Momentum
Chapter 7 – Energy

Week #5, April 29 – May 3
Chapter 7 – Energy (continued)
  **Exam #2** on Thursday, May 2 (Chapters 5-7)
Chapter 8 – Rotational Motion

Week #6, May 6 – May 10
Chapter 8 – Rotational Motion (continued)

Week #7, May 13 – May 17
Chapter 9 – Gravity
No Class Wednesday
Chapter 10 – Projectile Motion

Week #8, May 20 – May 24
Chapter 10 – Projectile Motion (continued)
  **Exam #3** on Friday, May 24 (Chapters 8-10)

Week #9, May 27 – May 31
No Class Monday (Memorial Day)
Chapter 35 – Special Theory of Relativity

Week #10, June 3 – June 7
Chapter 36 – General Theory of Relativity (part)
  **Exam #4** on Friday, June 7 (Chapters 35-36)

Week #11, June 10 – June 13
Review on Monday, June 10
  **Exam #5** on Wednesday, June 13 (Chapters 2-11, 22-25)

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