Syllabus

Course: PHYS 100 9:20 – 10:35 am Tu Th Darwin Hall 107
Instructor: Dr. So Young Han
Contact Information: E-mail: hanso@sonoma.edu, Darwin 300B, Tel.:664-3242
www.sonoma.edu/users/h/hanso/
Office Hours: Tu Th 10:50 – 11:50 a.m. or by appointment

Course Description
A survey course designed to provide an introduction to the concepts and principles of physics for nonscience majors. The topics covered include mechanics, thermodynamics, electricity and magnetism. Not recommended for B.S. students. Satisfies GE, category B1 or B3.

Prerequisite: There is no prerequisite. You will solve problems with basic trigonometry and algebra.

Course Objective
The expected outcomes from this course are

1. Students should understand and be able to demonstrate their understanding of the principles and concepts introduced.
2. Students develop logical thinking processes which are essential in science.
3. Students will develop cognitive understanding of science concepts through in-class demonstrations and exercises.
4. Students will discuss in peer groups to develop their cooperative skills and reinforce understanding of concepts.

Accommodations for Students with Disabilities
If you need disability related accommodations for this class, such as a note taker, test taking services, special furniture, use of service animal, etc., please contact the office of Disabled Student Services (DSS) located in Salazar Hall, Room 1049, Tel: 664-2677

There are important University policies that you should be aware of, such as the add/drop policy; cheating and plagiarism policy; grade appeal procedures; accommodations for students with disabilities and the diversity vision statement. (Go to this URL to find them: http://www.sonoma.edu/uaffairs/policies/studentinfo.shtml)
Outline

Attendance: Attendance is mandatory. In case of an absence, the student is responsible for the learning experience and missing assignments made during his/her absence.

Materials to bring: Class Notes in a folder, Calculator

Grade:
- Best 2 of 3 Exams (2 midterms + Final) 50%
- Quiz 10%
- Homework 10%
- Class participation 30%

Grade Scale: A [89 above], B [88-79], C [78-69], D [68-60], F [Below 60]

Reading Assignment: Reading text book is required before and after classes.

* Grades are based on an absolute scale, not a curve.

* Exam

No Make-up Exam/Quiz will be given.
5 minute pop quizzes will be given without announcement.
You can drop one exam and one quiz.
If you have above 90% average in exams before the final, you may be excused from the final and the final exam grade will be recorded as 90%.

* Homework

Each homework assignment will be posted at www.sonoma.edu/users/h/hanso/.
The homework should be submitted before 5 PM on due-dates.
On the homework due-date, there will be a quiz out of the homework problems.
The solutions for the homework will be posted a week after the quiz.
You may submit a late homework before the solution is posted. There is a 20% deduction in the late homework scores.

* Class Participation

All students start with 30 class participation points.
Hands on practices (25pt)
Each group turns in 2 reports and a 15 minute presentation.
(Topic presentation (30pt), Topic report (10pt), 2nd report (5pt))
Each absence counts -1 point. (The attendance will be checked randomly.)
Any unwillingness/ negative behavior in class activities counts -1 point.
# Tentative Schedule

### Introduction:
*Let’s start our A, B, C in Physics!*

### Linear motion:
*A guy in a Corvette*

### Force:
*The driver of linear motion*

### Gravity:
*Man, Earth, Star and Galaxy*

### Conservation Laws:
*Energy, Momentum and Angular momentum*

### Thermodynamics:
*To make the perfect pasta*

### Electricity and Magnetism:
*Two sides of a Mirror*

### Waves and Light:
*A mystery of all time*

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<thead>
<tr>
<th>Week</th>
<th>Topics</th>
<th>Reading Assignment</th>
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<tbody>
<tr>
<td>W1 (Aug26 – Aug28)</td>
<td>Orientation, Space Perception, SI unit, Density&lt;br&gt;<strong>Hands on practice1</strong>: Metric measurement and Density</td>
<td>Chap1, Appendix A</td>
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<td>W2 (Sep2 – Sep4)</td>
<td>Motion</td>
<td>Chap. 3</td>
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<td>W3 (Sep9 – Sep11)</td>
<td>Force and Newton’s Laws of Motion</td>
<td>Chap. 2, 4, 5</td>
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<td>W4 (Sep16 – Sep18)</td>
<td>Gravity, Solar system, Star and Galaxy</td>
<td>Chap. 9, 10</td>
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<td>W5 (Sep23 – Sep25)</td>
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<td>W6 (Sep30 – Oct2)</td>
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<td>W7 (Oct7 – Oct9)</td>
<td>Energy, Momentum and Angular momentum</td>
<td>Chap. 6</td>
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<td>W8 (Oct14 – Oct16)</td>
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<td>Chap. 7, 8</td>
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<td>W9 (Oct21 – Oct23)</td>
<td>T, Heat, Specific Heat Capacity, Thermal Expansion, Heat Transfer, Change of Phase and Thermodynamic laws&lt;br&gt;<strong>Hands on practice2</strong></td>
<td>Chap.15, 16&lt;br&gt;Chap.17, 18</td>
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<td>W10 (Oct28 – Oct30)</td>
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<td>W11 (Nov4 – Nov6)</td>
<td>Static Electricity, Electric Current, Magnetism and Electromagnetic Induction&lt;br&gt;Nov 11 Veterans’ Day Holiday&lt;br&gt;<strong>Hands on practice3</strong></td>
<td>Chap.22 - 25</td>
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<td>W12 (Nov11 – Nov13)</td>
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<td>W13 (Nov18 – Nov20)</td>
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<td>W15 (Dec2 – Dec4)</td>
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<td>W16 (Dec9 – Dec11)</td>
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**Final Exam:** December 18 (Thursday) 8 – 9:50 a.m.