Welcome to Physics 2112
Outline

Course Structure
- Webpage
- Textbook Purchase Options
- Grading System
- General Schedule
- Prelectures
- Homework System
Welcome to Physics 2112

Everything is provided at:
http://www.cod.edu/people/faculty/cartert/PHY2112

Physics 2112
Physics for Engineers and Scientists II

The goal of this course is to enable students to gain a basic understanding of the physical concepts involved in electrical and magnetic fields, and basic electrical circuits. A significant amount of emphasis will be placed on the basic concepts involved. Calculations and calculus will be used as a tool to study and learn those concepts.

<table>
<thead>
<tr>
<th>Class Notes</th>
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| Welcome to Physics 2112
Watch this space for additional information about this class. |
| How to Purchase Your Textbook
The textbook required for this is the 6th edition of Physics for Scientists and Engineers by Tipler. An online version of the textbook is available from the publisher from $10.00 with a paper copy available for an additional $25.00. If you purchase the version that is in volumes, you need volume 2. Here is a summary sheet for purchasing instructions. Here is a detailed video. |
| How to Gain Access to the SmartPhysics Tutoring System
We will be using the SmartPhysics Tutoring system in this class. Here is instructions on how to gain access to the system. Access for the first 30 days is free. |
| You will need your clicker by January 14th and your lab manual by the 17th
A students must have a lab manual and clicker by January 17th. Please plan on purchasing the lab manual as soon as possible as it is often a source of confusion at the bookstore. You can use an iClicker 1 or iClicker 2. |
Text is 6\textsuperscript{th} edition of Physics for Scientists and Engineers by Tipler

Web-based version available from direct from the publisher for $10.00

Paper copy of volume II available for additional $25.00

Link to publisher’s site plus all the details is available on the web page
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<th>Category</th>
<th>Points</th>
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<td>Prelectures</td>
<td>27 @ 2pts</td>
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<tr>
<td>Checkpoints</td>
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<tr>
<td>Post-Class Homework</td>
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<td>Classroom Questions</td>
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<td>Labs</td>
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<td>Recitation Assignments</td>
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<td>Weekly Exams</td>
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<td>Final</td>
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<td>Total</td>
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General idea on how to get a C

- Homework: 90% of 182 = 164pts
- Classroom Questions: 100% of 60 = 60pts
- Labs: 80% of 80 = 64pts
- Weekly Exams: 80% of 130 = 104pts
- Exams/Final: 50% of 320 = 160pts

Total = 552 pts

~72%
Course Structure

- Online Prelectures (animated textbook, before lecture)
- Online Preflights (check knowledge, before lecture)
- Lectures (clicker questions, during lecture)
- Online Homework/Tutoring (aprox ½ week after lecture)
- Weekly Quiz (repeat of homework question)
You will need your clickers starting today. (Part of your grade.)

We will register them in a week or so, although the data will still be recorded.

Do you have your i>clicker with you today?

A) Yes
B) No
C) Maybe
D) I like pudding
Math Requirements

In general, we will not do calculus more complex than:

$$\int_{-1m}^{3m} k \, x^2 \, dx \quad \text{or} \quad \frac{d}{dt} e^{-2t}$$

As in most engineering courses, you will find that it is the setting up of the integral or its limits that is difficult.
• Extremely important in engineering and science
• Don’t imply you know more than you do.
• Sig figs are rough “rule of thumb” on how to display uncertainty
Uncertainty II

- Learned in previous science classes?
- See me with questions or details are in textbook

- Egregious sig fig errors are wrong! Will lose you points.

Example:
- $13485.5/8.5 = 1586$ \(\text{okay}\)
- $13485.5/8.5 = 1586.529412$ -2pts