Welcome to Phys100 Section 102

Instructor: Prof. Fei Zhou

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The following web page (with linked pages):

www.phas.ubc.ca/~phys100/

Link to the section 102 web page

contains the information about this course

Please check it before each lecture, lab or tutorial – various updated materials or important notices will be posted there.

.html and .pdf formats

- Web Browsers:
  Mozilla, Internet Explorer

- Acrobat reader

To understand major global issues……

- Climate change and global warming
- Consumption and conservation of energy resources
- Sustainability of current way of life….

- These questions have already an impact and will continue to influence our future.
- We have to make informed decisions and better address these issues.
- In this course, we will look at the basics of energy generation, electricity, and transport, and we will also look at a basic climate model.

Phys 100 Topics

Part I: Energy

1. Forms of energy and energy conservation
2. Dynamic equilibrium and thermal physics
3. Home heating
4. Radiation and simple climate model
5. Climate change and positive feedback

Part II: Mechanical Energy and Work

1. Kinematics, forces and Newton's laws
2. Mechanical energy and friction
3. Transportation

Part III: Electrical Energy and Power Generation

1. Electricity
2. DC and AC circuits
3. Power generation

What we do……

- Lectures: Discuss core materials which you have pre-read; have question & answer sessions and address basic issues.

- Tutorials: Improve problem-solving skills and test those acquired skills. There will be 10 sets of Mastering-physics problems with due dates! Help you to model and understand physical phenomena.

- Labs: Learn the experimental data acquisition and analysis techniques in the labs.

Notice: Labs and Tutorials start next week (Sept 10th)

Online course materials
www.phas.ubc.ca/~phys100/

- Lecture notes will be posted online.
- The practice problems and the MasteringPhysics (MP) problems (to be marked) will be posted online. You have to register to use MP. Our course code is: UBC2007P100
- You can download the lab software (LoggerPro) and use it to do the pre-lab exercises.
- We will use PRSs to check your understanding of pre-reading and lecture materials. It will be also used for tests, midterms and some homework.

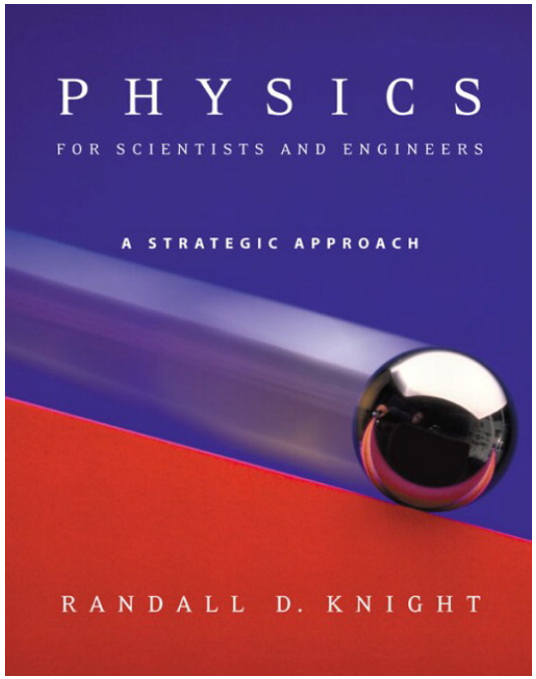
The **Required** textbook package

Knight: Physics for Scientists and Engineers:

A Strategic Approach with Modern Physics: Volumes 1-5 Boxed Set

with Mastering Physics

UBC Package ISBN: 0135141583



Included in this package:

- **Knight: 5 Volume Boxed Set**
- **Student Workbook**
- **eText Access Code – pages from 3 texts**
- **PRS Clicker Rebate Coupon- $25 value**
- **MasteringPhysics™ Student Access Kit**

www.masteringphysics.com

Where are my course resources located?

www.pearsoncustom.com/bc/ubc_physics/

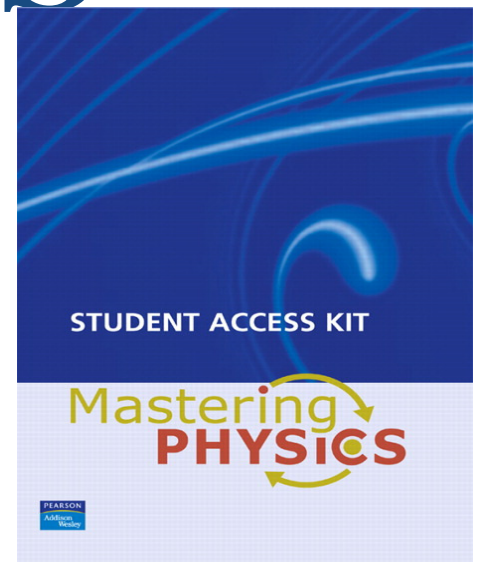
You can find all of the resources for your course at this site, including:

- A link to the book's **Companion Website**
- A link to **MasteringPhysics** (required for this course)
- A link to the **eText** which contains material from 3 other Physics texts.

MASTERING PHYSICS

Your COURSE ID for MasteringPhysics is:

UBC2007P100

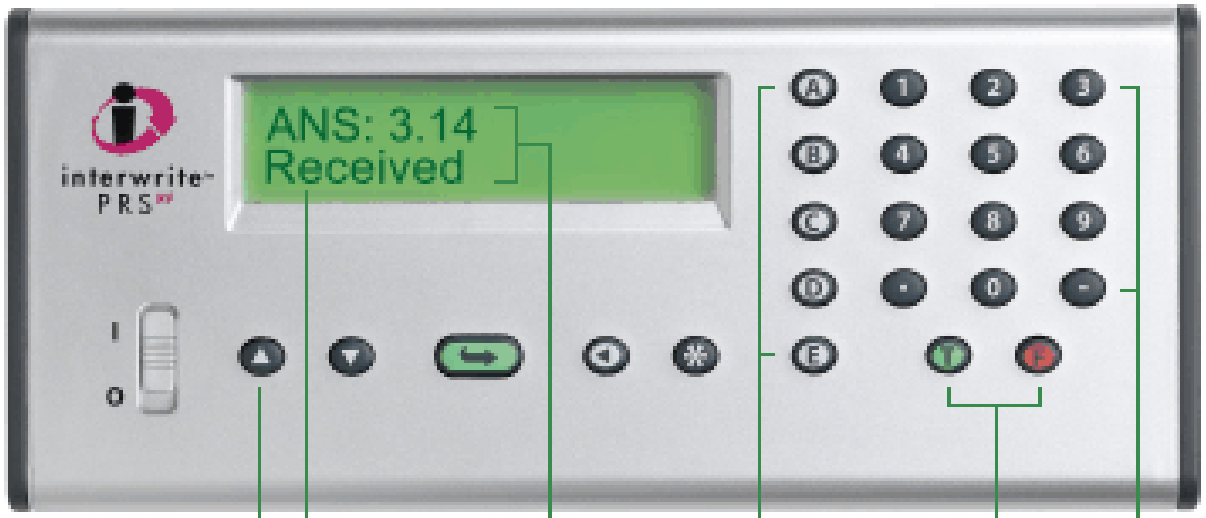


You will need this ID to

register for MasteringPhysics

New PRS RF Clicker

interwrite™
PRS RF



Scroll Through Questions in Self-Paced Mode

Receive Visual Notifcation that Answer was Received or Student has Successfully Joined Class

Students Can See Their Answers with the 2-line display

Multiple Choice Questions

True/False Questions

Numeric Questions including Decimal Point and Pos/Neg

On this Friday, Shaun will talk about how to set up and we will test your PRS. Next Monday, we will start using them.

PRS (Personal Response System)

How to use your transmitter (clicker)?

- Enter your student number
- Read the instructions how to:

1. join the class
2. Answer the multiple choice questions
3. Answer the alphanumerical questions
4. Write a self paced test
5. Upload the homework

Additional information and “how to” movies are available on:

http://ipeer.apsc.ubc.ca/wiki/index.php/PRS_for_Students

Lab Software: LoggerPro

- Go to Laboratory link on course web page
- Follow the link Labs then **Download**
- Username is: Phys100Student
- Password is: **LoggerPro2**
- Make sure that you download the file for your Operating system
- Additionally, the files require passwords to extract.

The password for the mac file (.dmg) is: cicero

The password for the windows file (.exe) is: dragon

- After you installed the LP visit www.vernier.com and update the LoggerPro software to the newest version: LP 3.4.6

Other resources at UBC

1) Resource center – 2 to 4pm everyday – available for you in Hennings 208. 3 faculty members and 16 TAs are there to help you.

2) Tutorial sessions.

3) Form study groups and work in teams; learn via interactions and communicating with other students. Each of you is a valuable resource at UBC.

4) Email me if you want to talk to me personally.

All the questions about the lab and tutorial schedules and lecture section changes should be directed to:

Dr. Fran Bates and/or Dr. Evert Koster

It is very useful to bring the textbook and if possible laptop to lectures, tutorials, resource center and labs

Marking

labs %	lab test (5%)	20
MasteringPhysics%		6***
Tutorial (group work) %		6
Final project		6
PRS (participation only) %		5**
Surveys (participation in both pre-and post-) %		2****
midterm %		10*
final %		45
Total		100

In order to pass the course, you must pass the written (exam and midterm) part and the lab part. People who failed the course will receive a maximum of 45 final score, even if your calculated grade may be higher than 45.

- *If you missed a midterm exam for a valid reason (documentation must be provided to the instructor), the percentage for the midterm will be added to the final exam score. This way, the final exam score will be counted for 55% rather than 45%.

- **You can miss up to 15 questions during the term for whatever reason. The rest of the questions will count for your PRS marks. Since PRS is essentially a participation mark, no excuses will be accepted. Should the mark of this section be lower than the final exam mark, the final exam mark will be used instead.

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- ****There will be 2 on line surveys and 2 on line test 1 each at the beginning of the class and 1 each at the end. You have to participate in both surveys to get 1 point and in 2 tests to get another .

Academic Misconduct

- Midterms and exams: open books but no electronic devices with communication abilities. No collaborations, discussions etc..
- PRS –Discussions are encouraged when appropriate.
- 2 clickers per person? NO!
- Labs – working in pairs,
- Tutorials – working in groups

Read UBC Calendar page 48-49 on exam specific regulations.

Calendar page 54-55 on "Discipline on academic misconduct such as plagiarism..