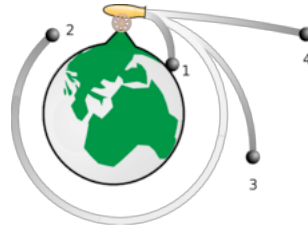


PHY131H1S Introduction to Physics I – Jason Harlow

- Hello and welcome!
- This is the first of a two-semester course to introduce physics to science students specializing in disciplines **other** than physics.
- This semester, we will study
- Required Text: “**Physics for Scientists and Engineers**” 2nd Edition (Copyright 2008) by Randall Knight.



MEDICAL RADIATION SCIENCES PROGRAM Open house

Tonight: **January 10, 2011 5pm – 7pm**
The Michener Institute for Applied Health Sciences
222 St. Patrick Street, Toronto, Ontario

Food and Refreshments provided

Pre-register for our guided tours by visiting:

<http://www.michener.ca/radsci/form.php>

Guided tours every 30 minutes

Career opportunity info

**In-depth info on our three program disciplines: Nuclear Medicine,
Radiation Therapy and Radiological Technology**

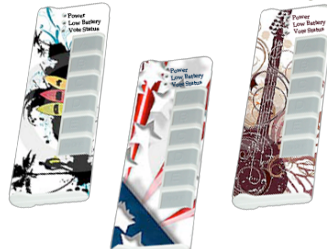
UNIVERSITY OF TORONTO/ THE MICHENER INSTITUTE
JOINT MEDICAL RADIATION SCIENCES DEGREE/ DIPLOMA PROGRAM
416-978-7837 email: hrocha@michener.ca
website: <http://www.utoronto.ca/radiationsciences/>

- Welcome - please make yourself comfortable!
- I am **Jason Harlow**. Here are some ways to reach me:
 - Telephone: 416-946-4071
 - Office: MP129-A
 - Email: jharlow at physics dot utoronto dot ca
- Course web page is on <http://portal.utoronto.ca>
Important course materials and links are all available on this web-site.

Make sure
you get the
one-page
hand-out!



Skin Your iClicker Today



- Class Participation will be measured using “i>clickers” – you can buy one at the bookstore for \$42 new, or \$32 used.
- You will use your **clicker** every Monday and Wednesday class beginning this Wednesday. Don’t forget it!
- If you can’t come, please do **NOT** ask a friend to bring your clicker for you!! 😱

What is Physics?

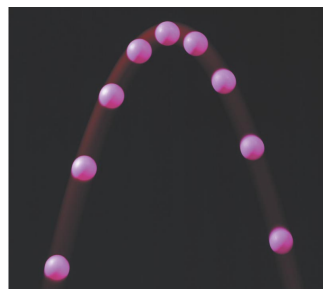
- Randall Knight, the author of the course textbook, states that Physics is

- It is
- This course has a bad reputation for being hard, but
- The trick is to treat Physics Problem-Solving as the memorizing equations. Focus on rather than

About Learning Physics

- In PHY131S, tests and the exam will involve
- Each concept will continue into the second half of the full course: This
- Assimilating any concept
- Keep up with your studies.
- The “last minute cram” before a test or exam is

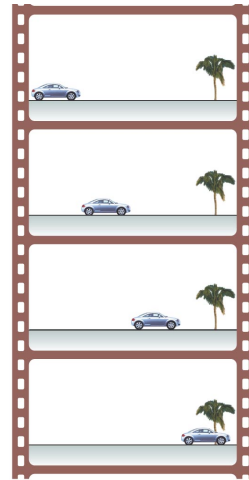
Today.. Motion!



Making a Motion Diagram

An easy way to study motion is to
to
A movie camera takes

typically 30 photographs every
second. Each separate photo is



Making a Motion Diagram

Suppose

and project the entire stack at once onto a screen for viewing. The result is shown. This composite photo, showing an object's position at several equally spaced instants of time, is called a



The same amount of time elapses
between each image and the next.

Tactics:

TACTICS BOX 1.1 Vector addition

To add \vec{B} to \vec{A} :



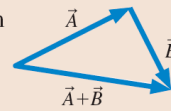
1 Draw \vec{A} .



2 Place the tail of \vec{B} at the tip of \vec{A} .



3 Draw an arrow from the tail of \vec{A} to the tip of \vec{B} . This is vector $\vec{A} + \vec{B}$.



Tactics:

TACTICS BOX 1.2 Vector subtraction

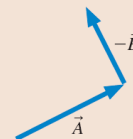
To subtract \vec{B} from \vec{A} :



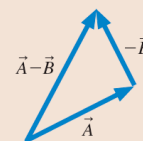
1 Draw \vec{A} .



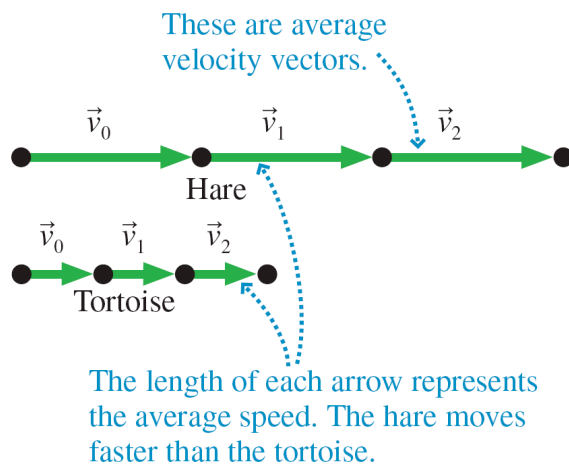
2 Place the tail of $-\vec{B}$ at the tip of \vec{A} .



3 Draw an arrow from the tail of \vec{A} to the tip of $-\vec{B}$. This is vector $\vec{A} - \vec{B}$.



Motion Diagrams with



Before Class 2 on Wednesday

- Please download and read the Course Outline, and the Preface, Introduction, and Chapter 1 of Knight
- Establish your MasteringPhysics account
- Register your clicker with your 9-digit Student Number at www.iclicker.com
- (Note, you can register your clicker later in the semester and you will still get marks for the classes you attended before you registered.)