Handouts: course info, preconceptions quiz
Online: syllabus, consultation room schedule

Introduce self; TA intros

What are students into? Which branches of Engineering?
  • Biomedical
  • Chemical/Biological
  • Civil/Environmental
  • Electrical/Computer
  • Engineering Physics
  • Geological
  • Materials Science
  • Mechanical

Administration/Syllabus
  • Two midterms
    ○ Ch 1-5: Wed October 10 - 7:15pm room TBD (25% exam score)
    ○ Ch 6-11: Wed November 14 - 7:15pm room TBD (25% exam score)
  • Homework due Mondays at 11pm, online at webassign.net - NO LATE HW
  • Course stuff on course page www.physics.wisc.edu/undergrads/courses/fall2012/201
  • Labs may NOT be missed – three make-up weeks
  • Discussions – TA's here to help you with material, interact!
  • Consultation room hours
  • Final exam: Tuesday, December 18, 2:45pm, room TBD
    ○ Ch 12-15 (25% exam score)
    ○ Cumulative (25% exam score)
  • Grading: 60% exams, 20% labs, 15% homework, 5% discussion

Advice
  • KEEP UP WITH COURSE
  • Read chapter before lecture and come to lecture
  • Do homework
  • Study with friends
  • Use consultation hours
  • Try to make labs fun, use your own ideas
  • Work lots of practice problems
What is Physics? Take poll on these statements

- True/False: Physics is a religion
  - 01-01-hawking-god-created-integers.jpg
  - 02-02-hawking-grand-design.jpg
- True/False: Physics is an art
  - 01-02-kim-dylla-stellarator-painting.jpg
- True/False: Physics is a branch of philosophy
  - 01-04-newton-principia.jpg
- True/False: Physics is the most fundamental science
- True/False: Physics requires math (and if so, whose math?)
  - throw a ball – where's the math??

Lecture Demos – ex. Air pressure cannon
1. LISTEN to the setup – what is going on?
2. PREDICT what will happen (you'll learn more if you're wrong!)
3. OBSERVE what happens
4. ANALYZE what happened (what about your prediction?)

Look at physics around you every day!
- My gas grill at 10F outside – why does it go out at full valve open, stay on if valve part closed?
  - 01-05-my-grill.jpg
- Why did only certain roads buckle during heat wave?
- Motorcycle racer – how can he not be falling?
  - 01-06-valentino-rossi-catalunya.jpg

Assignment
- Read Chapter 1, get started on Chapter 2
- Spend an hour in the Physics Museum
- HW 1 due Monday