

Physics Education Research

- Interactive learning is effective
 - Studies show we learn better when we are actively involved in the process
- Our focus is on your learning instead of our teaching
 - We assess how the class is going and adjust

This course is designed around these principles

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Why Clickers?

- Promotes active learning
 - Generally, a person's attention starts to waver after 10-15 minutes of a traditional lecture
 - There's a big difference between seeing someone do something and doing it yourself
- Facilitates peer instruction (social learning)
 - You are meant to work together on these clicker problems
 - Often the best teacher can be one of your fellow classmates

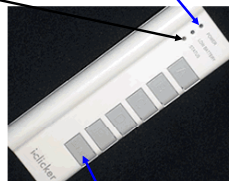
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The Clickers

Status Light

When we start asking clicker questions:

- Status light will flash **green** when your response is registered on my computer.
- Status will flash **red** if your response is not registered. **Please turn on your clicker now**



On/Off Switch

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Why Practicals?

- Your opportunity to “do” physics
- Built using education research principles
 - Very interactive
 - Social learning
 - The practical activities are designed to address common weaknesses

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Why pre-class quizzes?

- Very important to prepare before class
 - Read
 - Watch pre-class videos
- This is part of our approach to teaching
- We use your pre-class quiz answer to develop our lectures

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Discussion

Please form a group and take a few minutes to discuss this question:

Why do you think physics is required for your major?

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Tips

- Join a study group!
 - A life-long bond
- Use all resources available
 - Discussion board (portal)
 - Office hours (appointment if necessary)
 - Tutoring
- Ask questions
- Keep up with reading or pre-class videos
 - Sometimes you need time to formulate questions about a topic
- Keep up with homework
 - It's hard, but important

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Problem Solving

- You may find yourself struggling to do a HW problem
- Problem solving is one of the keys of this course
- Using physics concepts to attack a problem in a creative way shows that you know your stuff
- What do really successful problem solvers have in common?
 - Willing to try new things (also willing to fail)
 - Keep at it and you will improve

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One last thing

- We take teaching seriously and want to make this a pleasant experience.

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Before Class 2 on Wednesday

- Please read the Course Information page on Portal, and Knight Chapter 1
- If you have time or cannot do the reading, watch the Preclass Video for Class 2, available on Lectures on Portal
- Establish your MasteringPhysics account; instructions are under MasteringPhysics on Portal
- Do the first Pre-Class Quiz
- Register your clicker with your UTorID at www.iclicker.com
- Something to think about: How can you measure **speed** from a motion diagram?

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