

APS105 Lecture 1

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Welcome!

- ▶ Welcome to APS105
- ▶ Topics: data representation, programming techniques, algorithms, data structures
- ▶ “Do I seriously have to buy the textbook?”
- ▶ Evaluation: five labs, midterm exam, final exam, reading quizzes, class participation

Huh? I Can't Sleep in Class?

Well, you can, but:

- ▶ Class participation is worth 6%
- ▶ But that's not the most important reason
- ▶ Learning is enhanced when we are actively engaged in and questioning the material
- ▶ You will have opportunities to discuss solutions to problems rather than listening to me the whole time

How Lectures Work

- ▶ I give a short presentation on a key topic, followed by a concept test
- ▶ What is a concept test?
 - ▶ I present a question about the material
 - ▶ You think about it for a minute
 - ▶ You anonymously report your answers
 - ▶ You discuss with a small group of your neighbors, trying to convince them of your reasoning
 - ▶ You come to a consensus with your group
 - ▶ You report your revised answers, and we discuss as a class

What's the Point?

- ▶ Helps you assess your own understanding
 - ▶ Did you answer correctly? Why did you choose your answer? Why are the other answers incorrect?
- ▶ Helps you think through the ideas of other students
 - ▶ Explanations of other students (correct or incorrect) can help you gain a better understanding of the topic
- ▶ Let's me know where difficulties are arising, and how to address them

How we will use Clickers

- ▶ An iClicker remote is required for this course (purchase through bookstore, register through <http://www.iclicker.com/registration>)
- ▶ I'll ask questions on the screen during lecture, to which you can respond with your remote
- ▶ After discussion, I'll display a graph with the class results on the screen
- ▶ We'll discuss the questions and answers
- ▶ You get points for participating

How to Vote

- ▶ Turn on the clicker by pressing the bottom “On/Off” button.
- ▶ A blue “Power” light will appear at the top of the remote.
- ▶ When I ask a question in class (and start the timer), select A, B, C, D, or E as your vote.
- ▶ Green light: your vote was sent AND received
- ▶ Red light: error! Vote again!
- ▶ You can always change your vote while the timer is going — your last vote is the one that counts

Clicker Tips

- ▶ If you bought a used clicker, replace all of the AAA batteries
- ▶ Do not use Duracell as they are TOO short for the casing
- ▶ Do not use rechargeable batteries. They harm the clicker
- ▶ Register your clicker before our next class
- ▶ Before using a new clicker for the first time, pull the plastic tab out of the battery compartment
- ▶ Bring your clicker to class every day! Make sure your remote is on when voting!

Reading Quizzes

- ▶ Before each lecture, you'll complete a short reading quiz online
- ▶ Why?
 - ▶ You have to be prepared for class for our discussions to be productive
 - ▶ I can then focus on difficult parts of the material and new examples
 - ▶ I will not teach you the textbook in class (you know how to read!)

Grading

- ▶ You are graded on the quality of your participation in class, not on the correctness of your answers
- ▶ You are graded on the completion of reading quizzes, not on the correctness of your answers
- ▶ In this course, we use an absolute grading scale (no bell-curve)
 - ▶ I want you to feel comfortable discussing and understanding ideas with other students

Sample Clicker Question

What is the best thing to do on Reading Week?

- ▶ A. Party like crazy, and then get back to work next week
- ▶ B. Read and study for the entire week
- ▶ C. Stay in bed as much as possible

Academic Integrity

- ▶ Please don't share your lab code with anyone — not even code that doesn't work
- ▶ Please don't let other students copy your labs
- ▶ Please don't try to sneak up behind someone and lurk their screen
- ▶ This is all easy . . . or is it

Academic Integrity...

Are these scenarios examples of academic offenses?

1. Student A encounters a failure with his code and seeks help from surrounding peers. He finds student B who has had the same failure, but B has already identified the defect. Student A asks student B to tell him exactly what it is that he changed to make it work.
2. Student A is working on his program but he has no idea what to do, then he asks student B about it. After listening to the explanation of the assignment and student B's idea of how to do it, student A is inspired and starts to do his own work without copying exactly what B tells him.