CS 160
CS Orientation

Wrapping Up Fall 2015...
Odds and Ends

• Assignment #9 due Sunday
• Exercise #10 due Friday
• If you have CS 161 Pre-req issues, email me or see the advisors in KEC 1148.

* I will release your extra credit final this week. - 5 pts total
  - If you have an A, do not take it or I'll drop you a letter grade.
What Most Schools Don’t Teach!!!

- Planning/Organization
- Teaches patience
- Promotes diversity
- Keeping up with technology
- Computational thinking
- Critical thinking
- Form of art
- **Systematic problem solving**
- Logical, but also creative (outlet)
- Incremental
- Applies to all other fields, helps solve other problems in those fields
- Allow for abstraction
- Computers are everywhere
- Teaches to not be afraid of tech
- Team building
- Decomposing problems
- High paying job
- Form of self expression
- Exposes people to field they may enjoy
- Resume builder
- Job outlook
- Coding is the way of the future

- **Develop a growth mindset!!!**
Against Teaching Everyone to Program

• Pointless
• Not important to understand
• Expensive (more teachers, students having to pay for “unnecessary” class)
• Other fields/majors don’t need to code
• Hard to expect people who don’t understand/think like this to take this class
• Stressful
• More competitive the more people who know how to program
• Doesn’t compliment their major
• A student who hates programming won’t get anything out of the course
Questions to answer...

• breaking out of functions/loops
• arrays/lists: creating, initializing to zero, adding, removing, passing to func, returning, etc
• arguments/parameters
• returning/passing with functions
• What does it mean for something to be mutable? What is multi-threading?
• How does code read documents? Applications of arrays/lists
  • what are the functions that work with the list class? <--- Formally remind them about the python documentation??
• Can a mutable list be made to contain a set of immutable lists?
• what does it actually mean to "define" a function? (how does the program now how to go to that function)
• Why do we make separate functions instead of just having it in main(referencing assignment 8)?
• Applications of pre/post conditions? (real world examples)

• It's okay to feel like you're struggling. Look back at past things to see that you have actually understood a lot too!!!
Individual - Make up Exercise...

• Do you consider yourself a better designer, programmer, or you do not distinguish between the two?
• Why do you feel this way?
• When were you exposed to a second language? What was it? How do you think this helped?
• Did you ever learn to play a musical instrument? When? How do you think this helped?
• Exchange answers with a neighbor. What did you learn?