Computer Science 8

Introduction to Computer Science (Python™ Flavor)

- No pre-requisites
  - But primary goal is to *learn how to program*
    - requires practice (and commitment)
- Designed for non-majors
  - CS majors welcome to prepare for CS 16
    - But probably should try to skip to 16 if they already know how to program *in any language*

What CS 8 is *not*

- *Not* for people with zero computer experience
  - Instead start with short courses offered by IC
    - Word processing, spreadsheets, web browsing, e-mail, …
  - Otherwise you likely will be frustrated by CS 8's requirements and expectations
- *Not* a comprehensive course in Python either
  - Text and lectures focus on a subset – enough to teach fundamental programming concepts
  - After CS 8 though, you should be sufficiently trained to learn some advanced Python on your own

Course structure

- Mostly focuses on text Chapters 1-6
  - Intro to computers, programming, Python: Ch. 1
  - Number problems, control structures, functions: Ch. 2
  - Character strings, and related techniques: Ch. 3
  - Data collections (lists, tuples, dictionaries), and calculating statistics: Ch. 4
  - Text files, and more control structures: Ch. 5
  - Image processing, more functions: Ch. 6
- More topics (as time permits): parts of Ch. 7-10

Exam 1 about here

Exam 2 about here

Exam 3 on last lecture day (no "final exam" this quarter)

Requirements

- Labs/homework/projects – 40 percent of total grade
  - Weekly labs and related homework
  - Occasional additional programming assignments
- 3 exams – 60 percent of total grade
  - Best counts 28%, middle counts 20%, and worst counts 12%
  - See Syllabus for schedule (know it is subject to very rare changes)
- Course web pages are mandatory reading
  - www.cs.ucsb.edu/~mikec/cs8/ - updated regularly
- Questions about the requirements?

To do *this week*

- Read all of chapter 1 in the text
  - In general, *read ahead* of the lectures
- Confirm access to Python, version 3.x
  - If you want to install on your own computer – see http://www.python.org/
  - Available at CSIL and Collaborate labs too
- Fill out Hw0 and attend lab
- *Play* with Python at every opportunity
  - e.g., try out examples from text and lectures