

ECS 10

Sept 28

Introductions

- Prof. Nina Amenta
- Prantik Bhattacharyya
- Sam Johnson
- Shruthi Harve



Shruthi Harve

A first programming class

- For people with no programming experience
- Learn the computer language Python
- Write six programs

Why learn to program?

- Understand computers
- Computers are used in almost every career
- The programs you have are never exactly what you want. Example:
 - UCD Student Health Center
 - UCD Medical Center Hospital medical record, OR...
 - Extension of current system
 - Which to choose?
 - How to connect them?

How does programming help?

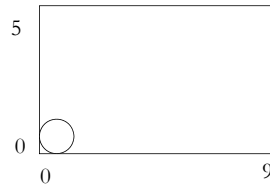
- You can handle little problems yourself
- You know when you hire someone how big a job it is
- You have some idea of what is possible.
- A good programmer has lots of job options (you'll need more than this one class, though)

It teaches you to think!

- The computer is your genie in a bottle
- It does exactly what you tell it to
- Your job is figuring out what to tell it
- Learning the language is the easy part; learning to give exact directions is the hard part
- Imagine telling a Martian how to tie their shoes....

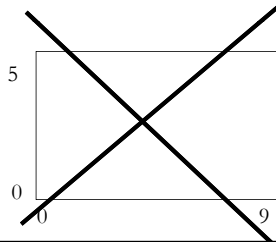
Example: draw ball

- `drawBall(1,1)`



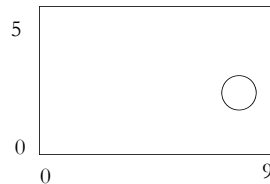
Example: draw ball

- `drawBall`



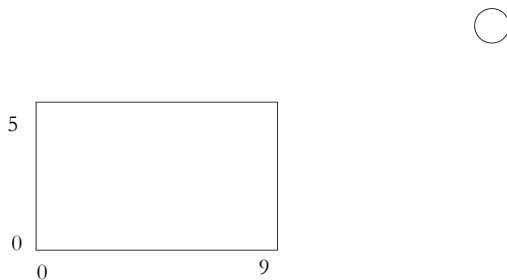
Example: draw ball

- `drawBall(8,3)`



Example: draw ball

- `drawBall(16,8)`



Why Python?

- Great for interfacing one program to another
- Free!
- Used in industry – Google, ILM, NASA....
- Easy to get started with!
- Lots of “libraries” (add-ons) that do things like sound editing, computational biology, Web database access.....

Other options

- ECS 15 – More conceptual overview. Understanding how computers and the internet work, a little programming.
- ECS 30 – More intensive class for those with some programming experience (Basic?). Learn C. Required for ECS majors.

Course Structure

- Six programs – 30% of grade.
- Tentative breakdown:
 - “hello” – 2%
 - “quiz” – 5%
 - “guessing game” – 6%
 - “line drawing” – 6%
 - “weather data” – 6%
 - “graphing” – 5%
- FIRST PROGRAM DUE 10PM WDS OCT 3

Exams

- Two midterms – 20% each
 - 10/22 and 11/19
 - If you miss the midterm, either:
 - Give me a note from Student Health
 - Get permission at least one week ahead of time
- Final – 30%
 - Dec 13 1:00-3:00 in this room
 - DO NOT leave campus before this final
- All exams open book, open notes

Weekly activities

- Lecture – 3 hours
 - If you have a laptop, maybe try typing along.
- Discussion section – 1 hour
 - Bring laptops
- Lab hours – 10 hours, optional
 - For help with programs.
- Office hours – 1 hour, optional
 - Administrative things. I will not help you with your program during office hours.

Lab Hours

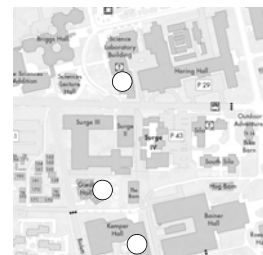
- We have open lab hours in the 2020 SLB, a “computer classroom”. In 73 Hutchinson on Fridays.

| | |
|---------|-----------------------|
| M 12-2 | Prantik Bhattacharyya |
| T 10-12 | Shruthi Harve |
| W 11-1 | Prantik Bhattacharyya |
| R 1-3 | Sam Johnson |
| F 4-6 | Prantik Bhattacharyya |

- Python is installed in classrooms
- Sometimes in use by other classes
- Python also in 75 Hutchinson, an Open Access Lab

Map

- ECS 10 geography



Flash drive

- If you work in the computer classrooms, you should bring a flash drive.



Professional Conduct

- I am expecting professional, adult behavior
- Politeness
 - No eating in class
 - No phone calls
 - “Business letter” emails
- Honesty
 - Write and understand every line of every program
 - No cut-and-paste
 - No looking at other people’s programs while typing

Getting started!

- First assignment due evening of Wds 10/3
- Get on a computer and start Web browser
- Find first assignment on course Web site:
<http://www.cs.ucdavis.edu/~amenta/f07/ECS10.Fall07.html>
(can get there from myUCDavis)
- Start using Python

Install Python on your computer

- Link to Python download page and directions on course Web site
- We can help during lab hours if you have a laptop

What to do this weekend

- Look at the first assignment on the Web page
- Install Python on your computer OR go to the lab and log on and try starting Python
- Get the book and read the first 11 pages while sitting in front of a computer and typing along.

Announcements

- No sections met this week
- Lab hours starting Monday
- I will be at W 11am lab hour
- My office hour is W 4pm. Administrative issues only.