Introductions

- Prof. Dan Gusfield
- ZiJie Qi
- Mina Doroud
- TBA (maybe)
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.
- The data you have is almost never in the format you want.
How does programming help?

- You can handle little problems yourself
- When you hire someone you have some idea of what she is doing.
- You have some idea of what is possible.
- A good programmer has job options (you’ll need more than this one class, though)
Example of What You’ll Know

- One program last year.
- Get data on population, foreclosures and display it by California county.
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....
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 – 32% of grade.
- Tentative breakdown:
  - first assignment – 2%
  - each of the other five programs are 6% each.

- FIRST PROGRM DUE 10PM Friday, JANUARY 8 - No time to waste!
Exams

- Two midterms – 18% each
  - 1/25 and 2/26
  - Make up midterms only with Doctor’s note
- Final – 32%
  - March 20 6 - 8 PM in this room
  - DO NOT miss the final
  - If you miss the final, you will get an incomplete for the course (assuming you were up to date before the final)
- All exams open book, open notes, no electronic devices
Weekly activities

- **Lecture** – 3 hours
  - If you have a laptop, maybe try typing along.

- **Discussion section** – 1 hour
  - Bring laptops if you have one

- **Lab hours** – optional
  - For help with programs.
  - May be very helpful in getting started this week.

- **Office hour** – 1 hour, optional
  - Administrative things. I will not help you with your program during office hours.
Lab Facilities

- You can often use the labs where we have lab hours during other times; check for availability.
- You can always use 75 Hutchinson, and 182 Shields computer lab.
- Best to install Python on your own computer! See the Software link on the class webpage for details. The book has a CD with an older version of Python (2.3.3), but it is better to install version 2.6.4 from the online Python site.
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
Stay healthy!
- Get an H1N1 shot as soon as possible.
- Don’t come to this lecture if you have a fever or for two days after that.
- The slides will always be on-line.
- There are suggested readings in the book and on the Web.
- Cough or sneeze into a tissue or your sleeve, not your hands or the air.
- Sit in the back if you’re coughing.
Late Work and Makeup

- There will be an automatic three (3) day extension on any program, with no points taken off. After those three days, NO late programs will be accepted without a doctor’s note.
- Makeup midterm only with a doctor’s note.
- No makeup finals; if you miss it, you get an incomplete.
Getting started!

- First program is due Friday 10PM January 8.
- Get on a computer and start Web browser
- Start using Python
Install Python on your computer

- Link to Python download page and directions on course Web site - use the Software link.
- We can help during lab hours if you have a laptop
What to do next - very soon!

- 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 14 pages while sitting in front of a computer and typing along. Then do the first assignment (Program 1).
- The book is Python Programming for the Absolute Beginner.
Announcements

- No discussion sections meet this week
- Lab hours WILL be held this week, but shorter today (Monday)
- Today, Jan. 4, the Monday lab will be from 12:30 to 1:50.
- My office hour is Wed 2pm. Administrative issues only.