Welcome to CS 368!

Introductions, Overview, Course Mechanics, Resources, &c.
Introductions
Section 1 = Perl

(normally in CS 1289)

Tim Cartwright

Section 2 = Python

Nick LeRoy
Section 1 = Perl
http://pages.cs.wisc.edu/~cs368-1/

Section 2 = Python
http://pages.cs.wisc.edu/~cs368-2/
Brief Overview
Course Objectives

- Write basic code in Perl or Python
- Solve real-world problems with scripting languages
- Learn about scripting languages (Python/Perl, Ruby, PHP, JavaScript, ActionScript, …)
Why Scripting?

• Fast development
• Easy to understand and change
• Abstracts over low-level details
• Pervasive
• Examples:
  – data munging for science, business, …
  – glue between other, incompatible apps
  – SpamAssassin
  – Twitter (Ruby on Rails)
Perl or Python?

- **Common**
  - Similar abstractions
  - Widely available
  - About equally expressive

- **Perl**
  - Older, therefore more existing code
  - Great for processing text
  - Vast, well-tested libraries in one place

- **Python**
  - Newer, cleaner approach
  - Object oriented
  - Becoming very common, esp. in scientific computing
Course Philosophy

Learn a new skill

Learn by doing

Learn to fish
Course Mechanics
Homework and Grading

- **Homework**
  - every day (except last), 15 total
  - short coding assignment
  - due by 11:10 a.m. of next class
  - no late assignments accepted *at all*

- **Grading**
  - credit/no credit
  - each assignment given 0, 1, or 2 points
  - need 20 points for credit
## Homework Points

<table>
<thead>
<tr>
<th>Pts</th>
<th>Reason</th>
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| 2   | • turned in on time, AND  
     | • code runs, AND  
     | • solution is correct or nearly so, AND  
     | • demonstrates real effort |
| 1   | • turned in on time, AND  
     | • partial solution, may not actually run, AND  
     | • demonstrates at least some effort |
| 0   | • late, OR  
     | • is plagiarized, OR  
     | • does not demonstrate any real effort |
Office Hours

Section 1 (Perl)
Wednesdays, 10–11 a.m., CS 4265 (Tim’s office)

Section 2 (Python)
Tuesdays, 1–2 p.m., CS 4289 (Nick’s office)

Other times available by appointment
Course Books (Python)

- *Learning Python* (3rd Ed.)
- *Python Cookbook* (2nd Ed.)

- Available FREE online via MadCat
- Not in the UBS textbook area
- *If* you buy them, get newest editions
Course Books (Perl)

- *Learning Perl* (4th Ed.)
- *Programming Perl* (3rd Ed.)

- Available FREE online via MadCat
- Not in the UBS textbook area
- *If* you buy them, get newest editions
How to Run Scripts
Running Perl

- Unix/Linux
  - perl filename
  - chmod 0755 filename
  - ./filename

- Mac OS X
  - use Terminal, same as above

- Windows
  - download ActiveState Perl
  - not officially supported in the course
Running Python

• Use Python 2.5–2.7 (not 3.x)

• Unix/Linux & Mac OS X (via Terminal)
  – python filename
  – chmod 0755 filename ./filename
  – Interactive Python: python

• Windows
  – download from python.org
  – not officially supported in the course
Homework for Day 1

• Go to section website
• Find syllabus
• Find and read homework
• Run the homework script on your own machine and print the output
• Turn in output tomorrow
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http://pages.cs.wisc.edu/~cs368-1/

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