CS 3410: Computer System Organization and Programming

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The slides are the product of many rounds of teaching CS 3410 by Professors Weatherspoon, Bala, Bracy, and Sirer.
Who am I? (Part 1)

Anne Bracy

Career Path
• Undergrad @ Stanford
• Grad School @ UPenn (computer architecture)
• Intel Labs
• Lecturer @ Washington University in St. Louis
• Sr. Lecturer @ Cornell
  • 3410, 4410, 4411
How class is organized

• Before you take this class...
  • What to take, what to buy
• Lecture
• Lab Sections
• Office Hours
• Online Tools
• Grading
• Who’s Who
Pre-requisites and scheduling (1)

**CS 2110 required** (Obj-Oriented Programming & Data Structures)
- Must have satisfactorily completed CS 2110
- *Cannot take CS 2110 concurrently with CS 3410*

**CS 3420 (ECE 3140) (Embedded Systems)**
- Take either CS 3410 or CS 3420
  - both satisfy CS and ECE requirements
- *However, Need ENGRD 2300 to take CS 3420*

**CS 3110 (Data Structures and Functional Programming)**
- Not advised to take CS 3110 and 3410 together
Pre-requisites and scheduling (2)

CS 2043 (UNIX Tools and Scripting)
• 2-credit course will greatly help with CS 3410.
• Spring only – *Lucky you!*

CS 2022 (Introduction to C) and CS 2024 (C++)
• 1 to 2-credit course will greatly help with CS 3410
• *Unfortunately, 2022 rarely offered*
• Instead, we will offer a primer to C during lab sections and include some C questions in homeworks
A word about Enrollment

Room Capacity = 207
Classroom Cap = 230

Course is now taught every semester
Required Textbooks

This:

+ 1 of these:

http://aop.cs.cornell.edu
download Ch. 1-4 + UNIX appendix, see if you like it

+ Suggested Textbook
Lectures

Tuesday & Thursday  10:10-11:25
Upson B17

iClicker: Bring to every Lecture
(starting Thursday Feb 3)
missing a few times is okay

No cell phones or laptops
Active Learning

a) Clickers
b) Activity Sheets
c) You ask Questions
d) I ask Questions
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<table>
<thead>
<tr>
<th>Time</th>
<th>Tuesday</th>
<th>Wednesday</th>
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<td>1:25-2:40</td>
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<td>2:55-4:10</td>
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- Carpenter Hall 104 (Blue Room) or Philips 318
- This week: optional, Thursday and Friday only
- separate from lecture and homework
- Attendance is a part of your course grade
- Bring laptop to Labs
- **C Lab 0:** “hello world” lab: Intro to C, VMs
- **Next week:** **Lab 0:** Logisim, logic circuits, and building an adder
Office Hours

My Office Hours:
• Mine: M 9-10 + TBD
• Start Monday!
• “Holding Court” after immediately class
  (Upson 207, 211, or 215)

TA Office Hours:
• See Google Calendar (linked on course webpage)
• Start Sunday
Course Staff

Lab/Homework TA’s:
22 TAs

http://www.cs.cornell.edu/Courses/cs3410/2016sp/staff.php

Find them on Piazza!

Administrative Assistant:
• Megan Gatch <mlg34@cornell.edu>
Online Tools: Course Website

http://www.cs.cornell.edu/courses/cs3410
• Office Hours / Consulting Hours
• Lecture slides, schedule, and Logisim
• CSUG lab access (esp. second half of course)
• Finalized Schedule will be up by next Tuesday

This class is relentless.
Stay on top of it!
Online Tools: Piazza

http://piazza.com/cornell/spring2016/cs3410

• **Everything happens here**

**Do not send email:**

• Guaranteed response “Please post to piazza”
• Redundancy is bad
• Single point of failure is bad
• **private piazza post in “prof-inbox” folder**
  • Better for conversation tracking, “resolved”, etc.

While there: Answer someone else’s question!
Online Tools: CMS

http://cms.csuglab.cornell.edu

• Assignments submitted here
• Grades given back here
Lab Sections, Projects, and Homeworaks

Labs Assignments

• Individual
• One week to finish (usually Monday to Monday)
• In-Class (0, 2, 4) vs. Take Home (1, 3)

Projects

• two-person teams
• Find partner in same section

Homeworks

• One before each prelim
• Will be released a few weeks ahead of time
• Finish question after covered in lecture
Grading

Lab (50% approx.)
- 5-6 Individual Labs
  - 2 out-of-class labs (5-10%)
  - 3-4 in-class labs (5-7.5%)
- 4 Group Projects (30-35%)
- Attendance/Participation in lab (2.5%)

Lecture (50% approx.)
- 2 Prelims (35%)
  - Dates: March 3, May 5
- Homework (10%)
- Participation/Quizzes in lecture (5%)
Grading

Regrade policy
• In writing (for exams) or via CMS (everything else)
• Within 1 week of the assignment (or exam)’s return

Late Policy
• Each person has a total of five “slip days”
• Max of two slip days for any individual assignment
• For projects, slip days are deducted from all partners
• 25% deducted per day late after slip days are exhausted
• No assignment accepted more than 2 days late
Who am I? (Part 2)

Nice *and* a vertebrate

- **Piazza posts** about course material *very welcome*!
- Correspondence about use of slip days, your alarm clock, your all-nighters, your alcohol intake, your car battery, *etc. etc.* waste your time and mine
- I do not grant exceptions
- Deadlines are firm
Academic Integrity

All submitted work must be your own
  • OK to study together, but do not share soln’s
  • Cite your sources

Project groups submit joint work
  • Same rules apply to projects at the group level
  • Cannot use someone else’s solution

Closed-book exams, no calculators

One TA has a dedicated job of maintaining AI
  • Stressed? Tempted? Lost?
    • Come see us before due date!

Plagiarism in any form will not be tolerated
Academic Integrity Rules of Thumb

- Code vs. Pseudo-code
- the Blackboard rule of collaboration
  - Work on BB, take no notes, erase, go home and write up separately
- Solutions are hard to un-see
Questions so far?