CS 3410: Computer System Organization and Programming

Hakim Weatherspoon
Computer Science
Cornell University

The slides are the product of many rounds of teaching CS 3410 by Professors Weatherspoon, Bala, Bracy, and Sirer.

Who am I?

Hakim Weatherspoon

- Undergrad: Computer Engineering
  @ U. of Washington
- PhD: Computer Science, Distributed Systems
  @ U. of California, Berkeley
- Academia: Cornell
  - Taught 3410 and 4410 more than 10 times over 10 years!

How class is organized

- Before you take this class…
- Lecture
- Lab Sections
- Office Hours
- Online Tools
- Grading
- Who’s Who

Pre-requisites and scheduling (1)

- ***CS 2110 required*** (OO 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
  - Lectures scheduled at the same time so you can't

Pre-requisites and scheduling (2)

- CS 2043 (UNIX Tools and Scripting)
  - 2-credit course will greatly help with CS 3410.
  - Spring only

- CS 2024 (C++)
  - 1 to 2-credit course will greatly help with CS 3410

- ECE 2400 (Computer Systems Programming)
  - New course started last semester
  - Lot of overlap with 2110, 2043, 2024, and 3410

Required Textbook

Digital Design

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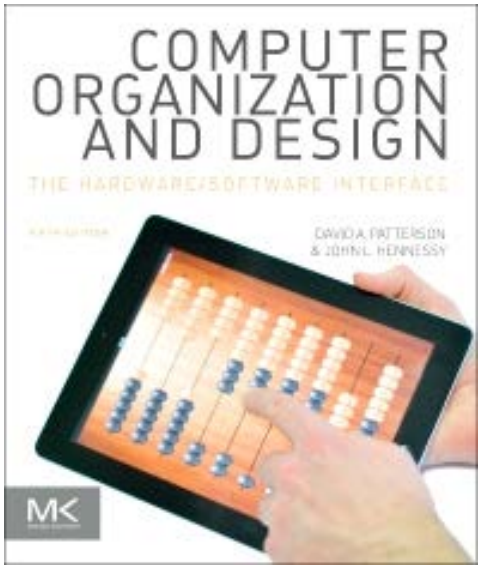

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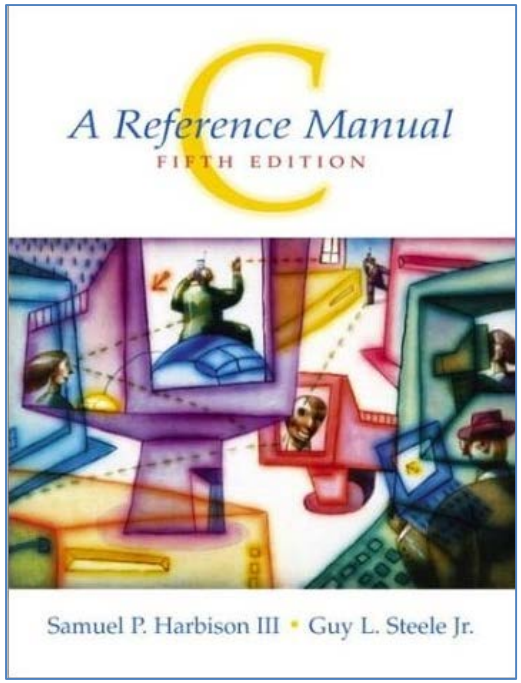
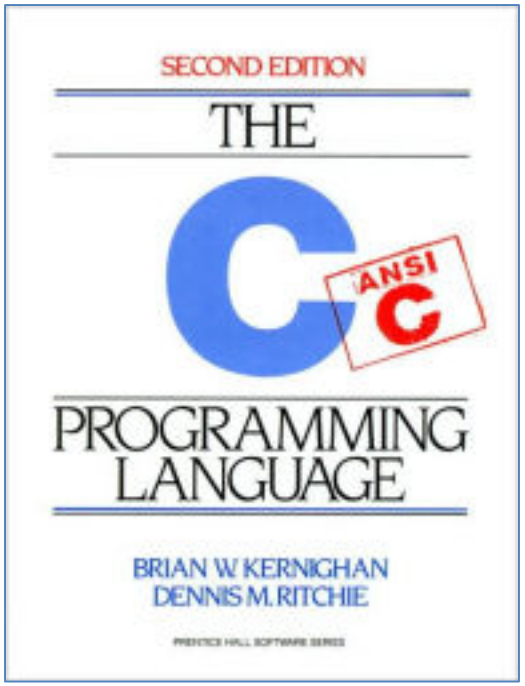
Cornell University CS 3410 Bracy Fall 2017: Digital Design and Computer Organization and Design

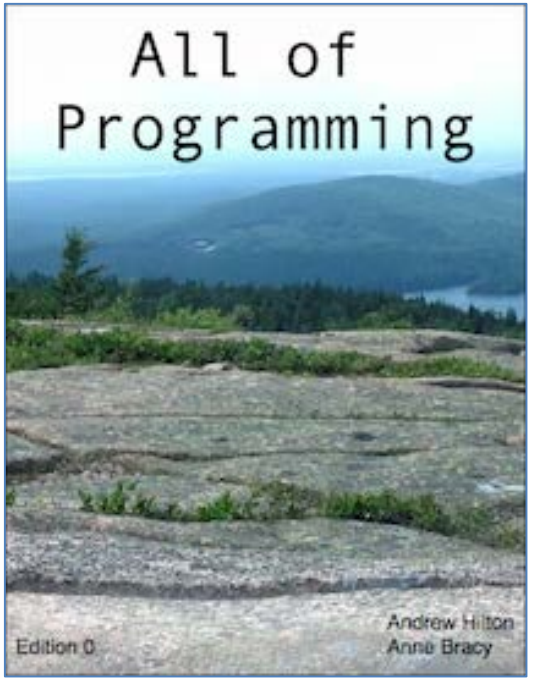
Participation Activities due by midnight before class (soft) or 10 am day of class (hard).

(Starts next Tuesday.)
Challenge Activities not required unless you are told otherwise for Lab Section.

C Resources (optional)







Lectures

- Tuesday & Thursday 10:10-11:25
- Klarman Hall KG70

- iClicker: Bring to every Lecture
- (starting today!)
- missing a few times is okay
- No cell phones (except for Reef Polling)
- No Laptops

Active Learning

- Interactive Textbook
- Clickers
- Activity Sheets
- Classroom DJ, Breaks
- Autograders
- Lab Sections
- You ask Questions
- I ask Questions

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Lab Sections

Section	Day	Time	Location
214	Tuesday	1:25-2:40	Carpenter Blue Room (104)
201		2:55-4:10	Carpenter Blue Room (104)
208	Wednesday	11:40-12:55	Carpenter Blue Room (104)
212		1:25-2:40	Carpenter Blue Room (104)
202		3:35-4:50	Carpenter Blue Room (104)
203	Thursday	11:40-12:55	Carpenter Blue Room (104)
204		2:55-4:10	Carpenter Blue Room (104)
209	Friday	11:40-12:55	Phillips 318
213		1:25-2:40	Phillips 318

- Labs Start This Week!

Office Hours

My Office Hours:

- Mondays 10:30-11:30am, Tuesday 1:15-2:15pm

TA Office Hours:

- Always in Rhodes Hall, Rooms 400 & 402
- Every day of the week
- See Google Calendar on course website
- Start *Sunday*

Awesome Course Staff will soon appear on canvas Staff page

Communication

- Website
  - http://www.cs.cornell.edu/courses/cs3410/2018sp
- Email
  - cs3410-prof@cornell.edu
  - The email alias goes to me, or come to my office hours
- Assignments
  - CMS: http://cmsx.csuglab.cornell.edu
- Newsgroup
  - http://www.piazza.com/cornell/spring2018/cs3410
  - For students
- iClicker
  - http://atcsupport.cit.cornell.edu/pollsrvc/

Personal Emergencies

- Please email cs3410-prof@cornell.edu

- Get Help
- Get Documentation

- **The earlier the better**

Online Tools: Website

- http://www.cs.cornell.edu/courses/cs3410/2018sp

- Office Hours / Consulting Hours
- Lecture slides, schedule, and Logisim
- CSUG lab access (esp. second half of course)
- Finalized Schedule will be up by next lecture (readings by Friday)
- Submit to CMS.

- This class is relentless.
- Stay on top of it!

Course Management

- Github for assignment dissemination
- CMS for submissions & grades

Labs & Projects

- Labs Assignments
  - Weekly
  - To be done in lab

- Projects
  - 2 Individual Projects: you work alone
  - 6 Pair Projects: you work in pairs
  - Ideally, find partner in same section

Exams

- 2 Prelims
  - March 15 and May 3

Administrative Assistant:

- Jenna Edwards <jls478@cornell.edu>, Gates 401
- Please give accommodation letters to her within the first 2 weeks

Grading

- Approximately:

- Practicum ~50%
  - Labs 10%
  - Projects 40%
- Lecture ~50%
  - Prelims 35%
  - Zybook 10%
  - Participation 5%

Grading

- Regrade policy
  - Within 1 week of the assignment (or exam)'s return
- Late Policy
  - Each person has a total of ***4*** "Slip days"
  - Max of ***2*** slip days for any project
  - Cannot ever submit later than 48 hours late
  - Handled by CMS, need to check implementation
    - For pair projects, slip days deducted from all partners
    - 25% deducted per day late after slip days are exhausted
  - Cannot use on Labs. (Lowest 2 lab scores will be dropped.)

Who am I, Revisited

Nice *and* a vertebrate:

- **Piazza posts** about course material *very welcome*
- Visits to my office hours *very welcome*

- Correspondence about use of slip days, your alarm clock, your all-nighters, your alcohol intake, your car battery, *etc. etc.* ***not welcome***

- No exceptions
- Deadlines are firm

Academic Integrity

- All submitted work must be your own
  - OK to study together, but do not share solultions
  - Cite your sources
- Project groups submit joint work
  - Same rules apply to projects at the group level
  - Cannot use someone else's solution

- Stressed? Tempted? Lost?
  - Come see us before due date!

Plagiarism in any form will not be tolerated

Academic Integrity Rules of Thumb

1. Looking at code that we didn't give you?

   STOP

   - Protect yourself. Solutions are hard to un-see

2. White board rule of collaboration
   - Work on white board, take no notes
   - Erase, go home, watch an episode of Stranger Things
   - Code up by yourself

Questions so far?