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.

First Clicker Question!

How excited are you to take this class??

A. I've been waiting my whole life to take 3410. I couldn't sleep last night I'm so excited.
B. I'm excited.
C. I've heard good things, but my excitement is on hold.
D. Excited, not sure. Anxious? Yes.
E. Help! I'm a CS minor trapped in this class. Please rescue me. (Seriously.)

Who am I?

Anne Bracy

- Undergrad: Cognitive Science & German
- Masters: Computer Science, NLP
- PhD: computer architecture
- Industry: Research Scientist @ Intel Labs
- Academia: Lecturer @ WUSTL
- Current: Cornell
  - 3410, 4410, 4411

Second Clicker Question!

Who are you?

A. Freshman
B. Sophomore
C. Junior
D. Senior
E. Other

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*** (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

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

- ECE 2400 (Computer Systems Programming)
  - New course this semester

Required Textbook

Digital Design

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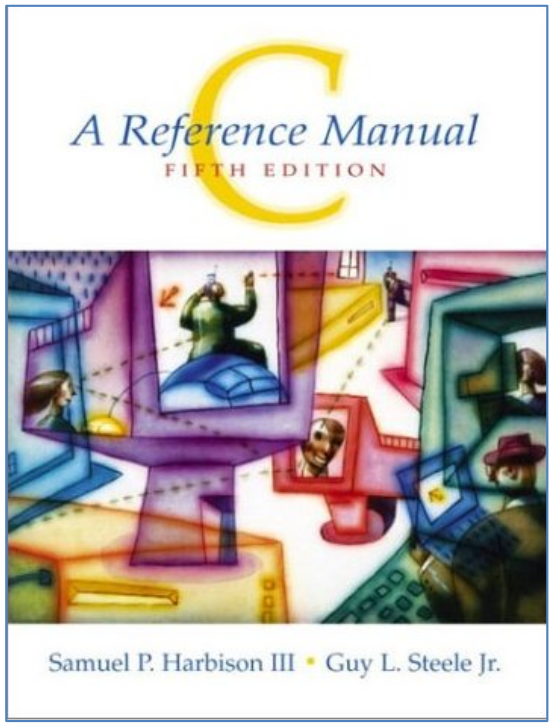
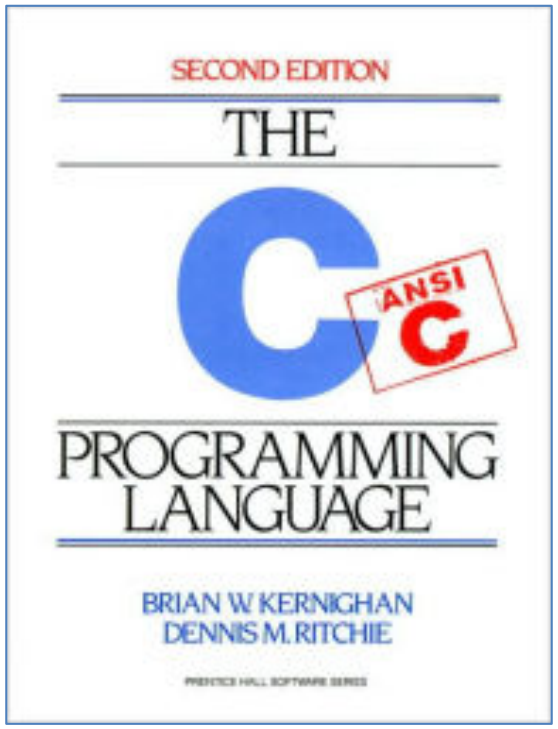
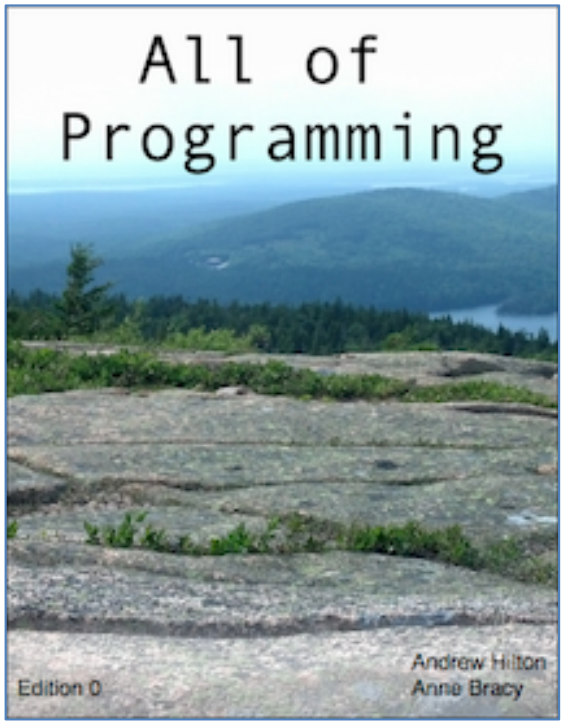
Cornell University CS 3410 Bracy Fall 2016: Digital Design and Computer Organization and Design

Participation Activities due by midnight before class. (Starting next week. Schedule will soon reflect this.)
Challenge Activities not required unless you are told otherwise for Lab Section.

C Resources (optional)







Lectures

- Tuesday & Thursday 10:10-11:25
- Morrison 146

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

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)
206		7:30-8:45	Phillips 318
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
Make-Up		2:55-4:10	Carpenter Blue Room (104)

- Labs Start Next Week
- First 6 Labs to be done in changing pairs

Office Hours

My Office Hours:

- Mondays 11-12pm, Tuesday 3-4pm

TA Office Hours:

- Always in Rhodes Hall, Room 405
- Every day of the week
- See Google Calendar on course webpage
- Start *Monday*

Awesome Course Staff:
http://www.cs.cornell.edu/courses/cs3410/2017sp/staff

Communications

Rule #1: no emails.

Use Piazza:

Public Posts preferable. (We will make them public.)
Private posts to all instructors, not just one TA.

- attachments supported

Administrative Assistant:

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

Personal Emergencies

- Please email cs3410-prof@cornell.edu

- Get Help
- Get Documentation

- **The earlier the better**

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 lecture (readings by Friday)

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

Course Management

- Github for assignment dissemination
- CMS for submissions & grades
- **Blackboard for iclickers only**

Labs & Projects

- Labs Assignments
  - Weekly
  - First 6, must work in pairs
- Projects
  - 2 Individual Projects: you work alone
  - 6 Pair Projects: you work in pairs
  - Ideally, find partner in same section

Grading

- Approximately:

- Labs 10%
- Zybook 10%
- Projects 40%
- Participation 5%
- Prelims 35% (15, 20)

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 ***4*** "Slip days"
  - Max of ***2*** slip days for any project
  - 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 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
- 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

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 Luke Cage
   - Code up by yourself

Questions so far?