CS 580U

Programming Systems and Tools

Fall 2017 - Steven Moore

Notes

- My Name is Steven Moore
  - My Bio
- Confirm Enrollment
- We will be discussing programming concepts from basic C to data structures
  - Class immediately after this one
- Who has experience with programming
  - what language?

Course Tools - Website

- http://cs.binghamton.edu/~samoore
- Website
  - lab assignments
    - *linked to google drive*
  - Reading, lecture notes and materials
    - *linked to google drive*
  - course schedule and info
  - policies

Assignments

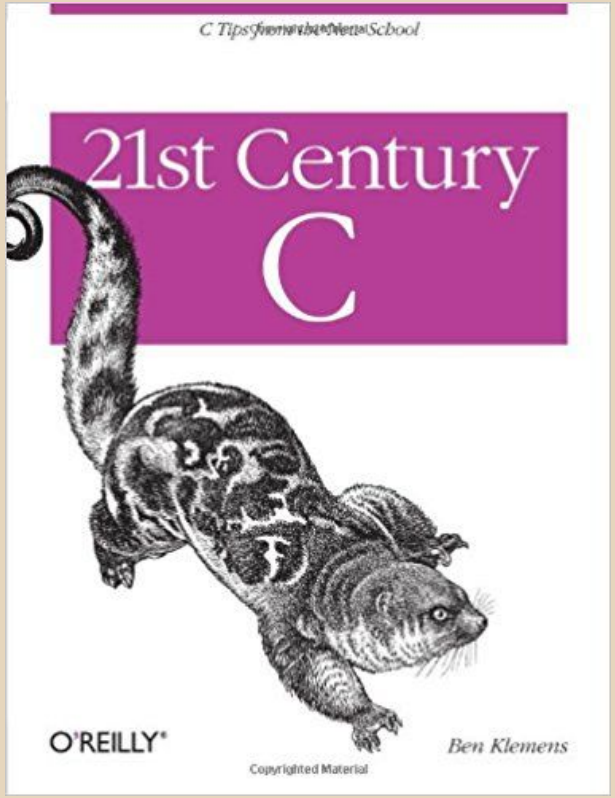
- Projects will be discussed in class
  - Assignment instructions will be posted on the website
- Submit projects to Blackboard by the due date
  - 10% per day late policy
- Most assignments will have a set of tests you must pass
  - You can program anywhere but
  - Your program must run on the machines in the lab

Lecture Format

- Lectures will be largely interactive, with lots of practical problem exercises
  - Over the course of each topic we will have 1 or more classworks
    - *A small in class assignment graded pass/fail*
- Classworks are not posted on the website and cannot be made up
  - Classwork makes up a portion of your Professional Accountability grade
    - *email submission to cs580uclasswork@cs.binghamton.edu*
  - Classwork submission is in class only

Recommended Textbooks

- Using a textbook this year:
  - 21st Century C: C Tips from the New School (2nd Edition) by Ben Klemens, ISBN-10: 1491903899
- Also Useful:
  - Wikipedia
  - Google
- I'll also be posting article resources on the website



Communication

- http://piazza.com/binghamton/fall2017/cs580u/home
- Piazza
  - Communication
    - *Public*
      - Receive answers about the course from me, TA's, or other students
  - Private
    - *Personal Questions*
      - If you are posting actual code or an answer, you must post as a private message to me
    - *If you are unsure, post privately, and I can make it public*
- First Assignment:
  - Sign up for Piazza, and respond to the 'Is C Relevant?' Post

Overview

- http://stevenamoore.me/courses?id=580u
- Projects with due dates will be posted here
- Lectures will be fast with a lot of information, especially in the beginning
- Course Materials:
  - Website will host lecture notes, course schedule, lab assignments
  - Blackboard will hold grades, and Project submissions
  - Piazza will be used for communication
- This is not just a syntax class

Course Tools - Blackboard

- blackboard.binghamton.edu
- Blackboard
  - Grades
    - *I try to keep grades updated over the course of the semester , and you can check your current grade for the course at any time on Blackboard.*
      - Because not all your work is in, the weighted grade on blackboard is an estimate only.
  - Course Website
  - Lab Submissions

Policies

- Review remaining policies on course webpage

Tentative Course Topics Outline

- Introduction to Basic C Programming
- Unix System Tools
  - Bash Shell
  - Valgrind
  - GDB
  - Make
- C Structs and Pointers
- Advanced C and Memory Management
- Data Structures

Policies

- Review policies on course webpage

How to Succeed

- Start labs as soon as they are assigned
  - Do not wait until the last minute
  - Plan for electronic failures and last minute emergencies
- Learn to research/read references
  - Google is the best teacher there is
- Ask for help in and out of class
  - Admit when you aren't 'getting' it
    - *If you understood all of it, you wouldn't need to be here*
  - Get it done wrong rather than not at all.

My Expectations

- If you need help, you will ask
  - For some of you, this will be an extremely difficult class because the material *is* difficult. I cannot make it easier.
- If you need me to review or re-explain a concept, you will ask.
  - I cannot know if you are struggling or something wasn't explained well if you don't tell me.
- This class is not a race to a finish line.
  - I will review a concept as many times as it takes for you to understand

Our Class Mantra - Ask Questions

- I am not the only one who has this question
  - No matter how silly you think the question is, someone else is just as confused as you
- Professor Moore loves questions because it makes his job easier
  - I can’t read minds very well, so help me by asking questions
- I need to ask more questions
  - Knowing what question to ask is more valuable than the knowledge you get from the answer