Computer Science 12
Programming Methods in C

- Pre-requisites: CS 5 or 10, or Engr. 3 – and *expect most students have passed Engr. 3*
  - Not open to CS majors, or if passed CS 11C, 22 or 60
- *More* than just an *introduction* to C and Unix
  - Ultimate focus is on data structures
    - And topics related to data structures
  - Also covers some fundamental algorithms
  - And some intermediate C topics plus specialized Unix tools and techniques

Schedule of topics

- Part 1 – K&R ch. 1-7, and Standish ch. 1-2
  - Refresher on C and Unix
  - Special focus on C pointers and structures
  - Introduction to linked data structures with C
- Part 2 – Standish ch. 3-6 (probably will cover 4 before 3)
  - Modularity and data abstraction
  - Recursion
  - Testing, and introductory algorithm analysis
- Part 3 – Standish ch. 7-9, 11, 13
  - Stacks, queues, lists and trees
  - Hashing, searching, sorting

Requirements

- 4-5 programming assignments – 24% of course grade
  - Must be *individual* efforts
- 2 midterm exams – each 20% of course grade
  - October 20 (Monday) – covers weeks 1-3+
  - November 10 (Monday) – covers weeks 1-6+ (mostly 4-6)
- Final exam – 36% of course grade
  - December 12 (Friday), 12-1:30 – cumulative, full quarter
- Students are *required* to monitor course web pages, starting at http://www.cs.ucsb.edu/~mikec/cs12
- Questions?

To Do – week 1

- *Review* (?) K&R text – chapters 1-7
- Read Standish chapter 1 (maybe start reading 2)
- Verify CSIL access (in a few days)
  - Need account @engineering.ucsb.edu – apply online if don't already have one
  - If already have an engineering account – good
- Become familiar with the course web pages – and watch for announcements