CS 161
Intro to CS I

What is programming?
Chap. 1.1
Who am I?

- Active Learning
- Let’s communicate!!!
Class Material

• Book: Absolue C++, 5th ed.

• Website:
  http://classes.engr.oregonstate.edu/eecs/winter2013/cs161-001/index.html
Who are you?

• What is computer science?
• Why are you in this class?
• Exchange answers w/ your neighbor.
• What did you learn from your neighbor’s answers?
What is a computer?

• A Computational Device
  – It computes (input-> processing -> output)
  – Modern: device that can be programmed to carry out an algorithm.

• Computer Science
  – The study of devices that can be programmed
Computers Are Everywhere

• Examples:
  – homes, offices, rooms/servers, phones, pacemakers, cars, etc.

• What is the difference b/w these?
  – Complexity
  – Size
What is an algorithm?

• Step-by-step description of how to accomplish a task, i.e. recipe
• Algorithmic thinking
• Expressed in any language
  – Natural
  – Programming
What is programming?

• Problem Statement
• Solve the Problem
• Specify Algorithm
• Algorithm -> Computer Language

• Why do we teach programming 1\textsuperscript{st}?
Hardware vs. Software

• Computer: **machine** that manipulates data and carries out **set of instructions**

• Hardware
  – CPU
  – RAM
  – Hard Disk

• Software
  – Programs
Software/Programs

• Primary piece of software on computer?
• What is its purpose?
• What are applications?
Readings/Assignments

• Assignment 1 will be posted on 1/9/13
• Read Chap. 1.2