CM 151

Introduction to Computational Science

- Intro to Computer Science for non-majors
- Practical Python Programming
- Programmatic Fun (?)
What is Computer Science?

• Need some programming
  – Way of seeing the world
  – Lots of ways to learn
  – Different skill levels

• Not just programming
  – Do Cool Stuff
  – Find out what can/can’t be done
  – Problem Solving
• What's the point of this class?
  – CS / Coding
  – Gentle introduction
    • Too Easy, Too Hard, or Just Right?
    • Ways to get into trouble

• Class webpage

• Syllabus
  – use of moodle
  – email
• Labs
  – Intro on 1st day of lab
  – Bring book to lab (at least Thursday – no lab today)
  – When due
  – Space/laptops
  – Partners
  – How independent
  – vs. Projects
  – Balance usefulness, relevance, and fun

  – Linux
• Reading
  – Our textbook
  – Before/after lecture
  – Questions at beginning of class

• Active Learning
  – Laptop for class?
- **Languages**
  - Unambiguous
    - “I saw the man on the hill”
    - Syntax: precise form
    - Semantics: precise meaning
  - Python 2 / Python 3
  - Other High Level Languages: Java/C/C++/C#/C.net
  - Machine Language: Assembly

**Algorithmic Thinking:**
http://www.ted.com/talks/kevin_slavin_how_algorithms_shape_our_world.html