CSE120: A New Course…

Computer Science Principles

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Introductions …

- Instructor: Larry Snyder, Prof. Emeritus
  - I like travel; I've lived in > ½ dozen other countries; a favorite food is anchovies + potato chips
- Teaching Assistant: Brandon Blakeley, grad student
- Teaching Collaborator: Susan Evans, high school teacher; she'll introduce herself Friday
- … and you?

Announcements

- Announcements are usually listed here ...
  they are also given at the top of the class
  Web page; they are not usually archived here

CSE120: Computer Science Principles

- A new course developed to be an AP course
- Supported by NSF and College Board
  - We will have pre- and post-surveys
  - Course offered under a microscope – lots of discussion of the "course," as opposed to the "content" … the sponsors want YOUR opinion
  - It's exciting – you learn the material first
    - Lots of effort (and big staff) to help you get it
    - Need to be flexible
    - I've done this one other time …

How did it happen?

- Started two years ago … "heavy weights" defined the content; now we try it out
- Five schools are pilots this year
  - UW, UC Berkeley, UC San Diego, Metropolitan State College of Denver, UNC at Charlotte
  - Next year, pilots move to high school, plus there will be more college pilots
  - In a few years (2014) there will be a standard AP high school course and an AP exam

… and it all started here!

How I'm Approaching This Course

- I see the task of this course as teaching
  - Computational Principles – "bits can represent all information" – that everyone should know
  - Computational Thinking – how to solve (your) problems with computers that you can use
- If you were thinking this class will be …
  - Trivial, forget it: I teach stuff you haven't had before
  - Difficult, forget it: This will eventually be a high school class
  - Fun and interesting: Perfect … that's what it will be

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- Programming's a career; it takes years to learn; it pays really well; normal people do it, too
- I teach some programming in this class as part of teaching computational thinking
  - You won't be a programmer at the end
  - You will still be however normal as you are today
  - You will, I hope, also think differently as a result

Class Structure

- 3 lectures – I will talk, demo and we'll all discuss various topics
- 2 labs – practice with the TA present
- Homework – exercises that help push the material further … one hour a day as needed

In computing, there are lots and lots of detailed facts that no one ever remembers, so computing people are always looking up information so they don't have to learn it; we'll do that, too, esp. in homework

- One 2-week project, Midterm, Final
- Fridays "After Image Survey" … points for helping with the experiment

Expectations ... yours of me

- Academically, you can expect me to ...
  - Select most important topics for the curriculum
  - Present the material in the clearest possible way
  - Select exercises and lab assignments that
    - Further your education in this class
    - Are interesting and enjoyable
    - Appreciate that you have other things in your life

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- Personally, you can expect me to be ...
  - Respectful, cooperative, understanding, ...
  - Encouraging, accepting of your contributions, ...
  - Provide help, both online and 1-on-1

Expectations ... mine for you

- Academically, I expect you ...
  - **To come to class & labs** ready to learn CS Principles
  - To make a sincere effort to understand the material
  - Go online to work on this class each day ...
    - Submit work that you alone created, except team asmts
    - Make constructive comments about improving this class

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- Personally, I expect you to
  - Be respectful of me and the other students
  - Contribute to helping others on discussion board
  - Meet deadlines; ask for extensions in extreme need

Announcements

- What you need to do today
  - "Sign up" for this class – that's tech lingo for committing yourself to make your part of this work
  - Familiarize yourself with the class Web page at http://www.cs.washington.edu/cse120 including …

    - The location of announcements, assignments, etc.
    - The Academic Conduct guidelines
    - Read "Why to take this class"

- Take the Pre-survey, linked from the Web page

Calendar ...

CSE120 Computer Science Principles

Calendar

Why Take CSE120

All of the scheduling information -- days off, assignments, due dates, reading links, etc. -- are presented on this page. Notice that some links are present, but not populated with a file yet.

Calendar

All Assignments are due before class on the day shown.

Date	Topic	Assignment	Due Today
Jan 3	**Lec:** Introduction, Orientation, The Plan Slides	Assignment 1	Precourse Survey [External Survey; LS won't see results]
Jan 4	**Lab:** "What I value" writing exercise; FTP	Lab 1	
Jan 5	**Lec:** Lightbot 2.0 - A Game or Programming? Slides	Assignment 2	Assignment 1 Report
Jan 6	**Lab:** Reveiw FTP; Lightbot Symbolic Form	Lab 2 mycsp	Small Photo of Yourself

Assignment 1: Lightbot 2.0

- Lightbot shows up on many gaming sites but whether or not it's a "game" is a topic for Wed
  - You direct a robot around a "blocks world"
  - It's pretty easy, and I hope it's fun ... there is a purpose to doing it