Welcome – You’ve found CSE120

- Announcements are usually listed here and displayed before the start of class
- ... they are also given at the top of the class Web page; they are not usually archived here
- Class Web Page:
  - courses.cs.washington.edu/courses/cse120/15wi/
Computer Science Principles

Lawrence Snyder
University of Washington, Seattle
Computer Science Principles

- CSE120 is a science class teaching fundamental ideas of Computer Science
  - We don’t use test tubes – CS is not ‘physical’
  - We do teach the laws of nature concerning data, information, algorithms, abstraction, logic, etc.

- This class is for general audiences
  - It is not a “majors” class
  - It could prepare you to take “majors” classes
I see the task of this course as teaching

- **Computational Principles** – “bits can represent all information” – that everyone should know
- **Computational Thinking** – ways you can use computers to solve (your) problems
This Course Covers 2 Kinds of Info

- I see the task of this course as teaching
  - **Computational Principles** – “bits can represent all information” – that everyone should know
  - **Computational Thinking** – ways you can use computers to solve (your) problems
- If you were thinking this class will be ...
  - **Trivial**, forget it: I teach stuff you haven’t had before
  - **Difficult**, forget it: The class was designed to be a high school AP class
  - **Fun and interesting**: Perfect ... that’s what it is
A Brief Word About Programming

- Some people panic at the mention of the word *programming* ... as if just saying it would cause them to become social outcasts, nerdy, ...
A Brief Word About Programming

- Some people panic at the mention of the word *programming* ... as if just saying it would cause them to become social outcasts, nerdy, ...
- 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 TAs present
- Homework – exercises that help push the material further ... one hour a day, as needed

- “Team project,” Midterm, Final
- Fridays “After Image Survey” ... worth a few points, takes less than 5 minutes, gives me feedback on how things are going
A Brief Word About Why We’re Here

A goal of this class is to teach you to think computationally ...

This class can actually make you smarter!
A goal of this class is to teach you to think computationally ... 

This class can actually make you smarter!

That’s important enough to repeat ...

This class can actually make you smarter!

All you need to do is ...
Learn CS Principles By ...

- Plan A
- Plan B
Learn CS Principles By ...

- Plan A
- Plan B

Make a good-faith effort to try everything and think about what you do.
Attend classes and labs ... duh!

Keep up with the assignments – 1 hr/day

If you will miss ANY deadline, don’t ignore it – tell me the problem & get an extension before

Be persistent ... many things will seem confusing at first, but you CAN figure them out ... stay with it

If you don’t “get” something, ask a TA or me
Expectations ... yours for 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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    - Submit work that **you** alone created, except team asmts
    - Make constructive comments about improving this class

- 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
Instructor: Larry Snyder, Prof. Emeritus
- I like travel; I’ve lived in > ½ dozen other countries
- A favorite food is anchovies + potato chips

TAs: Dun-Yu Hsiao, Sona Grigoryan, Bran Hagger, Geoff Liu
Introductions ... 

- Instructor: Larry Snyder, Prof. Emeritus
  - I like travel; I’ve lived in > ½ dozen other countries
  - A favorite food is anchovies + potato chips
- TAs: Dun-Yu Hsiao, Sona Grigoryan, Bran Hagger, Geoff Liu
- ... and you?
  - A Favorite Food
Announcements

- What you need to do today
  - “Sign up” for this class – that’s tech lingo for committing yourself to succeed in this class
  - Familiarize yourself with the class Web page at courses.cs.washington.edu/courses/cse120/15wi/ including ...
    - The location of announcements, assignments, etc.
    - The Academic Conduct guidelines

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

<table>
<thead>
<tr>
<th>Date</th>
<th>Topic</th>
<th>Assignment</th>
<th>Due Today</th>
</tr>
</thead>
<tbody>
<tr>
<td>Jan 5</td>
<td><strong>Lec:</strong> Introduction, Expectations, The Plan</td>
<td>Slides</td>
<td><strong>Assignment 1</strong></td>
</tr>
<tr>
<td>Jan 6</td>
<td><strong>Lab:</strong> &quot;What I value&quot; writing exercise; FTP</td>
<td>Lab 1</td>
<td>Essay Collect</td>
</tr>
<tr>
<td>Jan 7</td>
<td><strong>Lec:</strong> Lightbot 2.0 - A Game or Programming? Slides</td>
<td>Assignment 2</td>
<td>Assignment 1</td>
</tr>
<tr>
<td>Jan 8</td>
<td><strong>Lab:</strong> Informal Algorithms</td>
<td>Lab 2</td>
<td>Bauby Blinks Collect</td>
</tr>
<tr>
<td>Jan 9</td>
<td><strong>Lec:</strong> Functions -- the Punchline Slides</td>
<td>Assignment 3</td>
<td>Assignment 2 Collect</td>
</tr>
<tr>
<td></td>
<td><strong>Weekend</strong></td>
<td></td>
<td>After Image Survey by 5:00</td>
</tr>
</tbody>
</table>
Assignment 1: Lightbot 2.0

- Lightbot shows up on many gaming sites, but whether or not it’s a “game” is a topic for Wednesday
  - 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
Questions?