Announcements

• Read for next time Chap. 1, Chap 2.1-2.2
• Assignment 1
• Reading Quiz on Blackboard
  – Due beginning of class next time
• Bring laptop to class if you have one
• Must install Java, Eclipse and Ambient
  – See Resources page
  – Update if you already have it installed

What is Computer Science?

• Computer science is no more about computers than astronomy is about telescopes. - Edsger Dijkstra

• Computer science is not as old as physics; it lags by a couple hundred years. However this does not mean that there is significantly less on the computer scientist’s plate than on the physicist’s: younger it may be, but it has had a far more intense upbringing! - Richard Feynman
Scientists and Engineers

- Scientists build to learn, engineers learn to build. - Fred Brooks

- Duke alum
- Chair of UNC’s Computer Science Department
- Turing Award Winner

Computer Science and Programming

- Computer Science is more than programming
  - Called Informatics in many countries
  - Elements of both science and engineering
  - Elements of math, physics, cognitive science, music, art, and many other fields
- To some programming is an art, to others a science, to others an engineering discipline.

Computer Science is a young discipline

- First computer science department formed in 1962

What Is Computer Science?

- What is it that distinguishes it from the separate subjects with which it is related? What is the linking thread which gathers these disparate branches into a single discipline? My answer to these questions is simple --- it is the art of programming a computer. It is the art of designing efficient and elegant methods of getting a computer to solve problems, theoretical or practical, small or large, simple or complex.

C.A.R. (Tony) Hoare
C.A.R. (Tony) Hoare

• Turing Award Winner
• Knighted by Queen Elizabeth

What is Computer Science?

• Artificial Intelligence

What is Computer Science?

• Animation

What is Computer Science?

• The Organization of Data, and Searching

Pixar Talk
Jan 28
4:30pm
What is Computer Science?

- Medicine, Genomics

Why is Programming Fun?

- What delights may its practitioner expect as a reward
  - First is the sheer joy of making things.
  - Second is the pleasure of making things that are useful.
  - Third is the fascination of fashioning complex puzzle-like objects of interlocking moving parts.
  - Fourth is the joy of always learning.
  - Finally, there is the delight of working in such a tractable medium. The programmer, like the poet, works only slightly removed from pure thoughtstuff.

  Fred Brooks

Classwork:

- Who are these People?
  - Sort a couple of times, describe 6 people
- Fill out Survey
- Problem Solving: Nim
Who are these People?
Computer Science and Informatics

• Who are these people and what did they do?

• http://www.cs.duke.edu/courses/common/people/

A Java Program

```java
public class HelloCompSciClass {
    public static void main(String[] args) {
        // display a greeting
        System.out.println("Hello, CompSci 6!");
    }
}
```

About the Java Program

• What is the name of the class?
• What is the name of the method?
• What is printed?
• What does the ";" mean?
• What does "public static void" mean?
• What is "String [] args"?

Environment we will use

• Eclipse – an Integrated Development Environment
  − Editor
  − Compiler
  − An output console
  − Visualization of files and folders
  − Submission of programs (Ambient)
• See CompSci 6 page for installing on your computer