Today in CS161

**Week #1**

- The Science of Computing
- What does it mean to write a program
- How is game programming different?
- Consider using Computer Graphics
- You will have options…
- If you plan to continue and take CS162…
- What to do now?
We all use computers and technology. In fact, imagine what a day of your life would be like without computers? We have all become users, whether its surfing the web, listing to the latest tunes, or watching shows online not to mention using computers for writing and computations. But, what about behind the scenes?
The act of designing and implementing computer programs is called programming and in this class you will learn how to program a program in a high level programming language. What this means is that we will direct the computer to execute tasks in a particular order.
To Write a Program…

- To write a program simply means thinking about how to solve a problem and then translating that into essentially another language that isn’t your native tongue.

- To write a computer game with motion and sound effects or a word processor that supports fancy fonts and pictures may require a team of highly skilled programmers.

- But, underneath it is a logical sequence of step by step takes designed to solve the problem.
Consider using Graphics

- **Although it would be cool** to be able to create some of the affects that you saw in the video shown at beginning of class, we will start with simpler tasks but still with an emphasis for those interested in computer graphics so you get some visual feedback on the job you are doing.

- There are some cool programs for playing games – tic tac toe or hangman are inherently graphical.
Consider using Graphics

- We will also demonstrate simple programs for freehand drawing or creating art through computer graphics which I will show you during the term and we will find that some of it is not to difficult using the right tools to create.

- Receiving visual feedback can give a wonderful sense of achievement. It is an amazing experience to see the computer precisely and quickly carry out a task that would take you hours of drudgery otherwise.
You have options…

What we will do this term is start small and then see progressively what happens as we add improvements and features – using computer graphics we will get immediate feedback.

However, you are not required to use computer graphics. It is not vital to successfully writing programs.
You have options…

- **You will have options** on the platform and language that you use in this class. Some of you that have your own computers might like to download (for free) Dev C++ with graphics.h.

- Directions on how to download and setup Dev C++ are posted on our website.

- This will allow you to actually create small programs this term that have graphics results.
You have options…

- For Mac and Unix users, you will be best suited learning how to write programs using a unix operating system without computer graphics as of yet.
- Directions on how to get started are also on our website.
- For Mac users, we will have a special forum on blackboard where you can ask/answer questions.
Continuing on with CS162

- For those of you that plan to take CS162 next, I would suggest purchasing the CS162 textbook for this term. You will get a head start on that class which will be very beneficial and it can be a nice reference. Otherwise, I will provide the necessary notes to be able to get our homework and programs done.
What do to now?

- **What to do:** Get a unix account (go to SMITH room 18 or login to oit.pdx.edu; most of you already have one.
- Send karlaf@cs.pdx.edu an email to introduce yourself.
- Login to blackboard (psuonline.pdx.edu) and begin participating with online discussions.
Login to Blackboard Frequently!

- Login to Blackboard: Find the material and discussions that have started on blackboard and make it a routine every week
- Also check our home page for announcements and new handouts/slides/demo programs
- Read the Syllabus! Go to www.cs.pdx.edu/~karlaf
The Keys to Success…

The keys to success in CS161 are…

- Stay current with the material
  - (don’t get behind!)
- Watch the class lectures twice a week
  - (or attend class if you are in section 001)
- Start working on homework early
  - (never wait until the night before!)
- Seek help from the TA’s, Tutors, and Karla
  - (We are here for you!)
- Let’s have fun and see what computer science, game programming, computer graphics, and programming are all about!