

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?**

The Science of Computing

- 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 Science of Computing

- 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 see on TV or when you play video games, 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 – such as tic tac toe or hangman. These games 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 too 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.
- Only a few of our lectures will talk about computer graphics....

You have options...

- **You will have options** on the platform and software that you use in this class to create programs. Some of you that have your own PC 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 Desire 2 Learn 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, our textbook covers introduction to C++ through writing game program (so we will have some fun!)

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 Desire to Learn (D2L) at <http://www.my.pdx.edu> and begin participating with online discussions.

Login to Online Frequently!

- **Login to Desire to Learn (D2L):** Each week there will be new discussions posted on Desire to Learn. In addition, there are links to all of the course materials with D2L. Other benefits include getting feedback on your assignments.
- Make it a routine every week!
- There will also be announcements
- **To start...Read the Syllabus!**
- **Materials are also available at**
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!***