CS 150
Introduction to Computer Science 1

Professor: Shereen Khoja

August 30, 2010

Shereen Khoja

- http://zeus.cs.pacificu.edu/shereen
- shereen@pacificu.edu
- Office 203C Strain
- Office hours:
  - MWF   2-3pm
  - or by appointment

Chadd Williams

- http://zeus.cs.pacificu.edu/chadd
- chadd@pacificu.edu
- Office 202 Strain
- Office hours:
  - M   10:30am-noon
  - T   3:00pm-4:00pm
  - Th   1:00pm-2:30pm
  - or by appointment

What is CS150?

- CS150 is a programming course
- You will learn
  - Syntax (Grammar)
    - The mechanics of writing programs in C++
  - Design
    - Logical reasoning
    - How do I solve this problem with a program?
    - How do I break this into smaller, solvable problems?

- No previous programming skills needed!

---

http://zeus.cs.pacificu.edu/shereen

Course Schedule

- The course schedule I have posted is tentative.

- The online schedule will be accurate and up to date.
- Contains:
  - handouts
  - assignments
  - labs

Schedule

	Date	Topics	Homework & Assignments	Notes
	August 30	Basics of a C++ program		Chapters 1 & 2
	August 31	Lab		
Week 1	September 1	Variables and primitive data types		
	September 3	input/output statements		
	September 6	Labor Day - NO CLASS		
	September 7	Lab		
Week 2	September 8	Arithmetic statements		Chapter 3
	September 10	Operator associativity and precedence	Fraction calculator is due	
	September 13	Equality & relational operators		
Week 3	September 14	Lab		
	September 15	Logical operators		Chapter 4
	September 17	if selection structure		

8/28/10
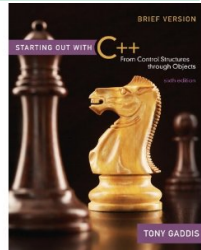

Syllabus

- Book/Handouts

- Software
  - Visual Studio 2010
- Grades

- Assignments
  - GIFT
- Lab

8/28/10

Syllabus

- Working outside of class
  - 8 hours per week
  - 1 hour studying (not working on an assignment)

- Academic Dishonesty
  - cheating
  - penalties
- Grade Complaints
- Learning Support Services

8/28/10

Respect!

- Class starts promptly at 1 pm!
- You: Arrive on time!
- Me: End class on time!

- Turn off your electronic devices!

- Don't log on to the computers during lecture.

- Participate! Ask questions!

8/28/10

Online Calendar

8/28/10

How to Succeed in CS150

- Don't miss class.
  - Take notes
  - Bring book and notes to lab and lecture
- Try and read ahead
  - bring questions to class!

- Start programming assignments early
  - they take much longer than you think

- Do as much on your own as possible.

8/28/10   http://static.eway.com/catalog/1/ce05_127973_pfd.jpg

How to Succeed in CS150

- Read the assignments carefully and follow all directions

- See me **as soon as possible** about any questions!

- Don't forget that you are at a small school!
  - and you are paying for it!

How to send an effective email

To: shereen@pacificu.edu
From: hall4242@pacificu.edu
Subject: CS150: quadratic formula

Hi Shereen,
I'm working on the programming assignment and I'm not sure how to calculate a square root in C++. Any hints?

Thanks,
 Lesley

Homework!

- Homework assignment #1

- Fill out the survey on the class web page
- Bring a printed copy **to my office**

- DUE: By Friday 5pm

- Be prepared to discuss your answers!

Introduction to Computers and Programming

Chapter 1

What is a Computer?

- What is your definition?

- What is Computer Science?

Question

- Can computers think?

Program

- Program
  - ??

- Programming language
  - A language used to write programs
  - Examples?

Programming

- Be very specific about what you want the computer to do

- It follows directions precisely

Programming Language

- Machine language
  - Zeroes and ones
  - CPU dependent

- High level language
  - Instructions look like everyday English
    - sort of
  - Each instruction can perform many machine language instructions

C++

- Based on the C programming language

- C++ is a high level programming language

- One of today's most popular programming languages

- Used extensively in industry

Your First C++ Program

```
//*******************************************************
// File name: hello.cpp
// Author:    Bob Smith
// Date:      08/30/2009
// Purpose:   This program displays a welcome message to
//                the user
//*******************************************************
#include <iostream>
#include <string>

using namespace std;

int main()
{
  string name;

  cout << "Type your name, then press enter" << endl;
  cin >> name;
  cout << "Hello " << name << "!" << endl;

  return 0;
}
```

Program Output:

```
Type your name, then press enter
Doug
Hello Doug!
```

Summary

- Today we have looked at:
  - The syllabus
  - Concept of programming

- Next time we will:
  - Learn how to write our first C++ program
  - Output data to the screen

- Completed sections 1.1 - 1.3 from the book
  - Pages1-12