

CS 150

Introduction to Computer Science 1

Professor: Chadd Williams

August 30, 2010

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!

Computer Science
Chadd Williams Home
Fall 2010 Classes
CS 150
CS 310
Quick Links
Schedule
Research Interests
Office Hours
Monday 10:30-noon Tuesday 3-4pm Thursday 1-2:30pm
Contact Info
chadd@pacificu.edu (503) 352-3041 Office: Strain 202

```
id = newId <= 0 ? setId( int newId )
id = ( newId >= 0 && newId <=10 )? newId : 0;
return Introduction to Computer Science I
```

Course Description

CS150 is a first course in computing and programming fundamentals. The goal of this course is to introduce you to problem solving through programming a computer. No previous computer experience of any type is required, but a deep interest in using one is. In this course, you will learn to program in C++. By the end of this course you should be able to write a program to do anything you want, given enough time and patience.

Course Materials

- * [Syllabus](#)
- * [Tentative Schedule](#) (with lecture notes)
- * Coding Standards
- * [Official Clock](#)
- * [Visual Studio FAQ](#)

Course Schedule

- The course schedule I have posted is tentative.
- The online schedule will be accurate and up to date.
- Contains:
 - handouts
 - assignments
 - labs

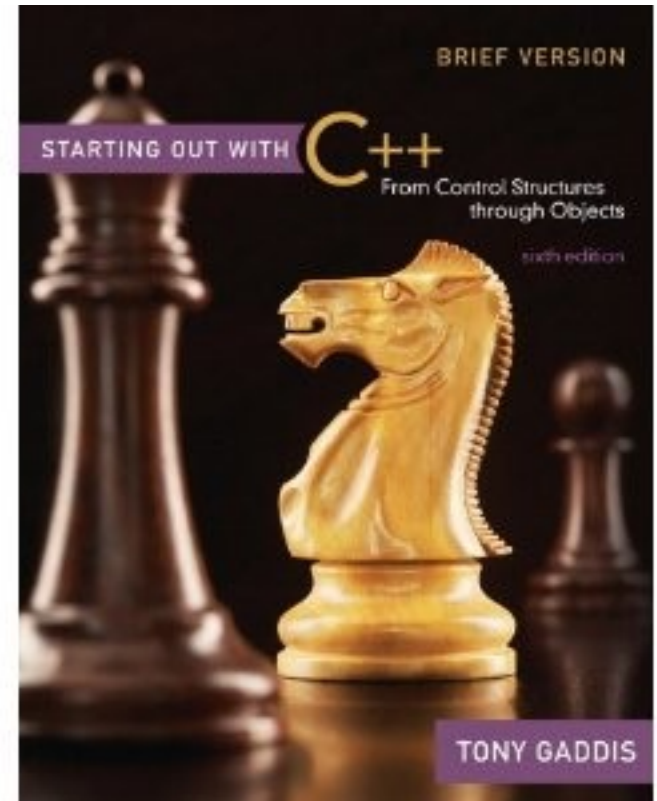
Schedule

CS 150 Schedule

Date	Topic	Notes	Assignments
Aug 30	Basics of a C++ program	PDF	Chapters 1 & 2 Survey
Sep 01	Variables and primitive data types	PDF LAB	
Sep 03	Input/output statements	PDF	Survey is DUE at 5pm
Sep 06	NO CLASSES -- Labor Day		
Sep 08	Arithmetic statements	PDF LAB	
Sep 10	Operator associativity and precedence	PDF	Chapter 3 Fraction calculator is due
Sep 13	TBD	TBD	TBD
Sep 15	TBD	TBD	TBD
Sep 17	TBD	TBD	TBD
Sep 20	TBD	TBD	TBD
Sep 22	Midterm 1		
Sep 24	TBD	TBD	TBD

Syllabus

- Book/Handouts
- Software
 - Visual Studio 2010
- Grades
- Assignments
 - GIFT
- Lab



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

Respect!

- Class starts promptly at **9:15 am!**
- 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!

Prof Chadd Williams Calendar

Today ◀ ▶ Aug 29 – Sep 4, 2010 ▼

Print **Week** Month Agenda ▼

	Sun 8/29	Mon 8/30	Tue 8/31	Wed 9/1	Thu 9/2	Fri 9/3	Sat 9/4
6am		Fall Courses Begin					
7am							
8am							
9am		9:15 – 10:05 CS 150 Lecture	9:40 – 11:10 CS 150 Lab (section 01)	9:15 – 10:05 CS 150 Lecture		9:15 – 10:05 CS 150 Lecture	
10am		10:30 – 12p Office Hours					
11am					11:20 – 12:50p A&S Meeting		
12pm							
1pm			1p – 2:30p CS 150 Lab (section 02)		1p – 2:30p Office Hours		
2pm	2p – 5p Meet Shereen	2:15p – 3:20p CS 310 Lecture		2:15p – 3:20p CS 310 Lecture		2:15p – 3:20p CS 310 Lecture	
3pm			3p – 4p Office Hours				
4pm							

8/30/10

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.



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: chadd@pacificu.edu

From: hall4242@pacificu.edu

Subject: CS150: quadratic formula

Hi Chadd,

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

Thanks,

Lesley

8/30/10

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

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
- Completed sections 1.1 - 1.3 from the book
 - Pages 1-12