

## CS 150 Introduction to Computer Science I

Professor: Shereen Khoja

August 29, 2011

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## Shereen Khoja

- <http://zeus.cs.pacificu.edu/shereen>
- [shereen@pacificu.edu](mailto:shereen@pacificu.edu)
- Office: Strain 203C
- Office hours:
  - M 10:30am – 11:30am
  - T 2:30pm – 3:30pm
  - F 1 – 2pm
  - or by appointment

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## What is CS150?

- CS150 is a programming course
- You will learn
  - Syntax (Grammar)
    - The mechanics of writing programs in C++
  - Design
    - Use logical reasoning.
    - How do I solve a problem with a program?
    - How do I break a problem into smaller, more solvable problems?
- No previous programming skills needed!

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

The screenshot shows the Pacific University Oregon website. At the top, there is a navigation bar with links for Information, Giving, Apply, Parents, Students, Alumni, Admissions, and Academics. Below this, the page title is "CS150 Introduction to Computer Science I". The main content area is divided into several sections: "Fall 2011 Classes" listing CS 150 and CS 493; "Course Description" explaining the course's goal to introduce programming fundamentals; "Course Materials" listing syllabus, tentative schedule, coding standards, and official clock; "Office Hours" (M 10:30-11:30am, T 2:30-3:30pm, F 1-2pm); and "Contact Info" with email and address details.

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## Course Schedule

- The online schedule will be accurate and up to date. Any class changes will be reflected immediately online, go get used to using the online schedule
- Contains:
  - Handouts
  - Programming assignments
  - Weekly lab projects

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## Schedule

The screenshot shows the Pacific University Oregon website with the "Schedule" page for CS150. It features a table with columns for Date, Topics, Homework & Assignments, and Notes. The schedule is organized by weeks, with specific dates and topics listed. A yellow highlight is present on the date Sept 5, labeled "Labor Day - NO CLASS". A blue highlight is present on the date Sept 21, labeled "Midterm 1".

	Date	Topics	Homework & Assignments	Notes
Week 1	Aug 29	Basics of a C++ program	Survey	
	Aug 30			
	Aug 31			
Week 2	Sept 2			
	Sept 5	Labor Day - NO CLASS		
	Sept 6			
Week 3	Sept 7			
	Sept 8			
	Sept 12			
Week 4	Sept 13			
	Sept 14			
	Sept 16			
Week 5	Sept 19			
	Sept 20			
	Sept 21	Midterm 1		
Week 6	Sept 22			
	Sept 23			
	Sept 26			

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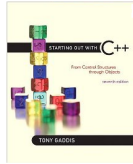
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## Syllabus

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



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## 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

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## Respect!

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

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## How to Succeed in CS150

- Don't miss class.
  - Take notes
  - Bring book and notes to lab, lecture, and office hours
- 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.

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## 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!

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## How to send an effective email

To: shereen@pacificu.edu  
From: smit1234@pacificu.edu  
Subject: CS150 - exam question

Hi Shereen,  
I'm studying for the exam and I ran across switch statements in the reading. Since we did not cover switch statements in class, I was wondering if switch statements could be on the exam?

Thanks,  
Lesley

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## Homework!

- Homework assignment #1
- Fill out the survey on the class web page
- Bring a printed copy **to my office**
- DUE: By Friday 2pm
- Be prepared to discuss your answers!

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## Introduction to Computers and Programming

### Chapter 1

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## Interesting Questions?

- What is your definition of a computer?
  
  
  
  
  
  
  
  
  
  
- What is your definition of Computer Science?

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## Interesting Questions Cont

- Can computers think?

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## Program

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

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## Programming

- Be very specific about what you want the computer to do
- The computer follows directions precisely
- You can't just make stuff up and expect the computer to understand
- On the other hand, sometimes you don't know exactly what you want to do ... try something ... anything ... you can't hurt the computer

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## 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

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## 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

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## Your First C++ Program

```
*****  
// File name: hello.cpp  
// Author: Bob Smith  
// Date: 08/29/2011  
// Purpose: This program displays a welcome message to  
// the user after the user enters their name  
//*****  
#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 EXIT_SUCCESS;  
}
```

Program Output:

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

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## Summary

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- Today we have looked at:
  - The syllabus
  - Concept of programming
  - A simple C++ program
- Next time we will:
  - Learn how to write our first C++ program
- Completed sections 1.1 - 1.3 from the book
  - Pages 1-12

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