CS150-01 Introduction to Computer Science I

Course Syllabus

Fall 2004

Introduction

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.

Aim

Master basic problem solving and programming skills using the C++ programming language.

Objectives

On completion of this course, you should be able to:

- Analyze and explain the behavior of simple programs involving the fundamental programming constructs covered in this course
- Design, implement, test, and debug a program that uses each of the following fundamental programming constructs: basic computation, simple I/O, standard selection and repetition structures, arrays, and the definition of functions.
- Choose appropriate selection and repetition constructs for a given programming task.
- Apply the techniques of structured (functional) decomposition to break a program into smaller pieces.
- Describe the mechanics of parameter passing in funcitons.
- Create algorithms for solving simple problems.
- Demonstrate the mechanics of using a debugger.

Topics

The topics covered in this course include:

- Basic syntax and semantics of C++
- Variables, types, expressions and assignment
- The role of algorithms in the problem solving process
- Conditional and iterative control structures
- Implementation strategies for algorithms
- Problem-solving strategies
- Simple input/output
- Functions and parameter passing
- Debugging strategies
- Structured decomposition

Instructor Details

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Office Hours:	MF 10.00 - 11.30 AM T 01.00 - 02.00 PM or by appointment

Course Basics

Course Title:	CS150 Introduction to Computer Science I
Corequisite:	Math125 Precalculus
Note:	You must achieve a C grade or better in this course in order to register for CS250 in the spring
Meeting Times:	MWF 01.00 - 02.00 PM (lecture) T 08.00 - 09.15 AM (lab)
Location:	Marsh LL12
Textbook:	C++ How to Program (Fourth Edition) by Deitel & Deitel *Prentice Hall*
Software:	Microsoft Visual Studio .NET. This software is freely available to all students registered for this course. Contact me for information.
Course Website:	***http://zeus.cs.pacificu.edu/shereen/cs150-01fall04/syllabus.html***

Course Assessment

Grade Distribution

6 to 7 Programming assignments	30%
3 Midterms	40%
1 Final	15%
Unscheduled quizzes	5%
Lab projects	10%

Program Grading

Successful execution and coding structure	70%
Acceptable comments and formatting	20%
Documentation	10%

Percent Breakdown

		92-100%	A	90-92%	A-
88-90%	B+	82-88%	B	80-82%	B-
78-80%	C+	72-78%	C	70-72%	C-
68-70%	D+	60-68%	D		
0-60%	F				

Important Dates

Dates for Midterms

Midterm 1	Friday, 24 September	Week 4
Midterm 2	Friday, 22 October	Week 8
Midterm 3	Friday, 19 November	Week 12

Date of Final

Thursday, 9 December, 8:30 AM TO 11:00 AM in Marsh LL12

Other Dates

6	September	Labor day holiday
13	September	Last day to add courses. Last day to drop courses with no record
8	October	No classes (Arts & Sciences)
8	November	Last day to withdraw from courses
24 - 26	November	Thanksgiving break

Course Policies

Class Policies

1. Attendance at every class is critical to your success in this course. I expect you to be on time and ready to go once it's 1:00 pm and that you stay till the end of class. Any missed lecture is your responsibility to make up; just remember, if you fall behind, it will be very difficult to catch up.

2. Computers are not to be used during lecture time. Once I begin lecturing, the keyboards should be pushed under the desk and the monitors should be ignored. Failure to do so will result in you being excused from class.

3. Cell phones are to be turned off and put away during class. Any cell phone that rings during class will be confiscated. Leaving during the middle of class to answer a page/call is extremely rude.

Assignment and Exam Policies

1. Assignments are to be turned in at the beginning of class on the day they are due.

2. Assignments can be turned in up to 24 hours late with a penalty of 20% of the grade. Anything later will not be accepted.

3. Make sure to test your program before you turn it in. You may turn in your program only once.

4. A program that does not successfully compile or produces no output loses 70% of the assignment grade.

5. No early or late exams/finals will be given under any circumstance. Do not make early Thanksgiving or end of term arrangements.

6. No incompletes will be given.

7. The cheating policy is defined in Pacific Stuff & the Pacific Catalog as well as the Academic Policy that each of you signed. Be sure you read this policy carefully. Every piece of code written for CS150 is to be an original design and an original implementation. The Web, textbooks and any other references are simply references for you. This means that copying code from any source is prohibited. Further, source code is not to exchange hands in any form or by any medium except when sending your solutions to the instructor. It is OK to share high level ideas during your design phase, help someone fix a bug occasionally, and share information dealing with the computer system (compiling, using editors, etc.) that does not involve code writing.

8. All code in any form generated from this course becomes the intellectual property of Pacific University. You may not share this code with anyone at any time (including after this course is over) without obtaining written permission from Pacific University.

9. Computer failure, software failure, and lack of computer access are not accepted as excuses for late programs; therefore, start work on the programs as soon as they are assigned, don't put them off until the last minute. Make sure to keep backup copies of your assignment. Corrupting or accidentally deleting your programs is also not an acceptable excuse for late programs.

10. The instructor reserves the right to raise or lower a student's grade based on class participation and attendance.