CS250 Introduction to Computer Science II
Course Syllabus – Section 2
Spring 2013

Introduction

A second course in programming that is a continuation of CS 150. The focus of this course is object-oriented programming. Concepts taught include pointers, classes, operation overloading, inheritance, polymorphism, and templates. These concepts will be reinforced with advanced programming projects. Prerequisite: CS 150 and MATH 125 each with a minimum grade of C. 4 hours.

Aim

Master object-oriented programming and design.

Objectives

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

- Justify the philosophy of object-oriented design and the concepts of encapsulation, abstraction, inheritance, and polymorphism.

- Design, implement, test, and debug simple programs in an object-oriented programming language.

- Describe how the class mechanism supports encapsulation and information hiding.

- Design, implement, and test the implementation of "is-a" relationships among objects using a class hierarchy and inheritance.

- Compare and contrast the notions of overloading and overriding methods in an object-oriented language.

- Explain the relationship between the static structure of the class and the dynamic structure of the instances of the class.

- Describe how iterators access the elements of a container.

Topics

The topics covered in this course include:

- Object-oriented design
- Separation of behavior and implementation
- Inheritance
- Class hierarchies
- Internal representations of objects and method tables
- Encapsulation and information-hiding
- Classes and subclasses
- Polymorphism
- Collection classes and iteration protocols

Instructor Details

Professor: Douglas J.Ryan
Email: ryandj@pacificu.edu
Office: Strain 201
Phone: (503) 352-2135
Office Hours: MWF 1:30PM – 2:30PM
or by appointment

Course Basics

Course Title: CS250 Introduction to Computer Science II

Prerequisite: CS150 Introduction to Computer Science I with a grade of C or better

Note: CS250 is a prerequisite for CS300 Data Structures, CS310 Theoretical Computer Science, CS315 Interaction to Human Computer Interaction, CS380 Algorithms, and CS360 Special Topics, thus a grade of C or better in CS250 is required to get into CS300, CS310, CS315, CS320, or CS360.

Meeting Times: MWF 9:15AM – 10:20AM Section 2

Location: Marsh LL12
Textbook: Starting Out with C++ From Control Structures through Objects (Seventh Edition) by Tony Gaddis. *Addison-Wesley*
Software: Microsoft Visual Studio Pro 2010. This software is freely available to all students registered for this course. Contact me for information.

Course Website: *http://zeus.cs.pacificu.edu/ryand/cs250/2013/*

Course Assessment

Grade Distribution

Programming assignments	40%
3 Exams	30%
unscheduled (open note) quizzes	10%
Final	20%

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				

Program Grading

Successful execution	70%
Acceptable structure, style, documentation, and efficiency	30%

Note: You must follow the C++ coding standards for this course posted on the Web page

Important Dates

Dates for Midterms

Exam 1	Friday, February 22
Exam 2	Wednesday, March 20
Exam 3	Monday, April 22

Date of Final
Monday, May 13, 3:00PM – 5:30PM in Marsh LL12 Section 2

Other Dates
Academic Calendar:

http://www.pacificu.edu/calendar/academic/

Course 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 is 9:15AM and that you stay until the end of class. Any missed lecture is your responsibility to make up; just remember, if you fall behind, it may be very difficult to catch up.

2. Programs are to be submitted to the correct folder on Turing by 9:15 AM on the day in which the assignment is due. Further, all assignments are to be done using Visual Studio 2010.

3. Assignments can be turned in up to 24 hours late with a penalty of 10% of the grade. If the assignment is between 24 and 48 hours late you will lose 20% of your grade. Anything later will NOT be accepted.

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

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

6. No early or late exams/finals will be given.

7. No incompletes will be given.

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 without obtaining written permission from Pacific University.

9. Neither computer failure, software failure, nor lack of computer access are accepted as excuses for late programs; therefore, start work on the programs as soon as they are assigned, and don't put them off until the last minute. Further, corruption of programs due to bad disk media is also not accepted as an excuse for late programs; therefore, always keep a current backup of all programs on a separate disk. Please note that the Computer Science departmental servers are not backed up.

10. I reserve the right to raise or lower your grade based on class participation and attendance. Specifically, I may lower your grade or may officially withdraw you from the course through the tenth week of the semester for poor attendance or participation. Further, your final grade may be lowered by 1/3 of your final course grade (e.g. B to B-) for each day of class that you do not attend for the ENTIRE 65 minutes. Please notify me PRIOR to class if you must miss class for any reason. Just sending an email prior to missing class does not guarantee you will be cleared to miss. Only legitimate reasons will be accepted as excuses for missing class.

11. Any important issue pertaining to class such as the need to miss an exam or grade issues will not be discussed via email. I will not even reply to your email if the issue is important; therefore, do not assume that no response means everything is OK.

12. If you are unhappy with something related to the class, then schedule an appointment to see me so that we can discuss it in my office. Complaining in class or out of class to other students gets us nowhere.

13. You may be asked to leave the classroom if you are causing a distraction e.g. cell phone ringing, talking, etc

14. If you have a complaint regarding a grade on an assignment or exam, write a one paragraph description of why you feel the grade is incorrect and deliver it to the instructor. The paragraph must be delivered to the instructor within one calendar week of when the graded material is returned to the student. I will not consider any grade changes later than one week after the graded material is returned.

15. If you have a documented disability covered under the ADA then services and accommodations are available from LSS (Learning Support Services). If you need reasonable accommodations to fully participate in course activities or meet course requirements, you must contact Edna K. Gehring, Director of LSS, at X2107. She will meet with you, review the documentation of their disabilities, and discuss the services Pacific offers.

Academic Dishonesty

Pacific University has no tolerance for academic dishonesty. It is university policy that all acts of academic dishonesty be reported to the Associate Dean. Forms of academic dishonesty include, but are not limited to, plagiarism, fabrication, cheating, tampering with grades, forging signatures, and using electronic information resources in violation of acceptable use policies. Please consult the Academic Conduct Policies in the A&S Catalog for more details.

1. For programming assignments, plagiarism takes the form of, but is not limited to, copying (or looking at) code from someone else, whether copying files, typing from someone else's notes or typing while they dictate. The source can be a classmate, former student, website, program listing found in the trash, or anything else. Furthermore, plagiarism even on a small part of the program is still cheating on the entire assignment.

2. You should also note that aiding someone else's cheating also constitutes cheating. You should never leave your code where someone else could have access to it, such as staying logged onto a machine or placing solutions in the recycling bin where another student may take it. If you share a computer with a roommate or friend, your homework solutions should not be available for anyone else to see at any time.

3. Sanctions that may be imposed for academic dishonesty are:

   a) First offense for cheating: 12 percentage points subtracted from your final course grade

   b) Second offense for cheating of any kind is an "F" for the course and possible suspension or dismissal from the university.