Trent University
Computer Science 204H
2007 Fall Term

OBJECT-ORIENTED PROGRAMMING

Course Outline

Instructor: Michael Jack, *E-mail: michaeljack@trentu.ca*
Office: OC 102, Conference Room
Office hours: Monday, Wednesday, 15:00 - 17:00.

Secretary: Bonnie MacKinnon*, E-mail: compstudies@trentu.ca*
Office: OC 102.6, Phone: (705) 748-1011 ext.1495

Website: http://www.trentu.ca/webct

Texts:

Required:

Lewis, J. C# Software Solutions, 1st edition, 2007.
Jack, M. Computer Science 204H Lecture Notes.

Supplementary:

Deitel Developer Series. C# for Programmers, 2nd edition, 2006.
Deitel. C# How to Program, 1st edition, 2002.

Course Description:

The purpose of this course is to continue developing and enhancing the concepts of object-orientation and learn the key principles of object-oriented programming using C# programming language.

Course Objectives:

Introducing C# programming language and the concepts of object-oriented programming.
Understanding the basic types of data used in C# program and the use of expressions to perform calculations.
Understanding Boolean expressions and how to use them to control the flow of programs.
Understanding the use of predefined classes in the .NET architecture and the objects that can be created from them.
Understanding the basic issues related to writing classes and methods.
Understanding arrays and array processing.
Developing the techniques for identifying classes and objects needed for a problem and the relationships among them.
Understanding class derivations and associated concepts such as class hierarchies, overriding, and visibility.
Understanding the concept of binding and how it relates to polymorphism.
Understanding exceptions.

Course content:

Lectures:

Introduction
Data and Expressions
Conditionals and Loops
Using Classes and Objects
Writing Classes
Arrays
Object-Oriented Design
Inheritance
Polymorphism
Exceptions

Seminars:

Discussing programming examples and assignments as they relate to the lecture topics.

Meetings:

Lectures are Tuesday 17:00 - 19:00 in GCS 112.
Seminars are Tuesday 19:00 - 20:00 in GCS 112.

Grading scheme:

20% 9 online quizzes with 8 best selected for the final grade
40% 8 programming assignments
40% Final exam

Notes:

For each of the lecture topics you have an online quiz on the myLearningSystem (WebCT) and a programming assignment.

Examination policy:

Since you will be taking online quizzes at the time of your convenience you can use any resources such as Internet and books to help you answer the questions. The duration of each quiz varies from half-an-hour to an hour depending on the scope and complexity of the quiz.

Final exam is open text book. The duration of the final exam is three hours. The final exam will be structured around quiz questions and C# language programming assignments. The better you do on the quizzes and assignments, the easier it will be for you to “ace” the final.

No computers may be used during the final examination. The only digital devices permitted are calculators and digital wristwatches. Cell phones must be turned off during the examination.

Assignment submission policy:

All assignments are to be submitted using the myLearningSystem (WebCT) assignment drop box tool. Do NOT email the assignments or slide them under anyone’s door. They will NOT be accepted.
For each assignment there is a due date and a cutoff date. Any assignment submitted past the due date will incur a penalty of 10% per day. No assignments will be accepted past the cutoff date.

Missed or Delayed Term Work:

You are expected to complete all programming assignments and hand them in on time, and you are expected to write the quizzes at the scheduled time.
If you don't hand in some term work due to illness or another legitimate reason, Michael Jack is willing to make accommodations, but only if you report the problem to Michael Jack (not anyone else) as soon as is reasonably possible. Accommodations for missed term work will be decided on a case-by-case basis; typically they will involve either accepting assignments after the due date or making changes to the weighting used to compute the course grade.

Academic Dishonesty:

Academic dishonesty, which includes plagiarism and cheating, is an extremely serious academic offence and carries penalties varying from failure in an assignment to suspension from the University. Definitions, penalties, and procedures for dealing with plagiarism and cheating are set out in Trent University's Academic Dishonesty Policy which is printed in the University Calendar.

Get help, but do not cheat!

You are encouraged to discuss the assignments with the instructor, lab adviser, and fellow students, since this is one of the best ways to learn the material. However, you should not let anyone write your programs or solve other exercises for you. When you hand in your assignments, ask yourself two questions:

Do I understand all the material I am handing in?
Could I do this assignment over again without any help?

The answer to both questions should be YES.
Computers allow electronic copying of programs, which makes it very easy to cheat in a course like COSC 204. If you are caught cheating you will be reported to the Dean's Office for appropriate discipline. If you cheat and don't get caught, you are still in trouble, because examination marks count more than assignments marks in your final course grade.

Access to Instruction:

It is Trent University's intent to create an inclusive learning environment. If a student has a disability and/or health consideration and feels that he/she may need accommodations to succeed in this course, the student should contact the Disability Services Office (BL Suite 109, 748-1281, disabilityservices@trentu.ca) as soon as possible. Complete text can be found under Access to Instruction in the Academic Calendar.

Course Schedule (may slightly change as the course progresses)**:**

Date	Type	Start Time	Location	Duration	Topic	Due back
September 11	Lecture 1	16:00	GCS 112	3 hrs.	Introduction	
September 18	Lecture 2	16:00	GCS 112	3 hrs.	Data and Expressions	Assign 1
September 25	Lecture 3	16:00	GCS 112	3 hrs.	Using Classes and Objects	Assign 2
October 2	Lecture 4	16:00	GCS 112	3 hrs.	Writing Classes	Assign 3
October 9	Lecture 5	16:00	GCS 112	3 hrs.	(no lecture; reading only)	-
October 16	Lecture 6	16:00	GCS 112	3 hrs.	Arrays	-
October 23 Reading week	-	-	-	-	-	-
October 30	Lecture 7	16:00	GCS 112	3 hrs.	Object-Oriented Design	Assign 4
November 6	Lecture 8	16:00	GCS 112	3 hrs.	Inheritance	Assign 5
November 13	Lecture 9	16:00	GCS 112	3 hrs.	(no lecture; reading only)	-
November 20	Lecture 10	16:00	GCS 112	3 hrs.	Polymorphism	Assign 6
November 27	Lecture 11	16:00	GCS 112	3 hrs.	Exceptions	Assign 7
December 4	Lecture 12	16:00	GCS 112	3 hrs.	Final exam review	Assign 8