Carleton University

Department of Systems and Computer Engineering

ECOR 1606 B ***Problem Solving & Computers*** ***Summer 2010***

Course Outline

Instructor:

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Office : 4250ME,

Email: use the tool provided on course web site

Course Objective:

The course is intended to leave students capable of using a computer to solve simple problems.

Instructional Resources:

- Web Site: http://webct.carleton.ca
- Recommended Textbook: Prelude to Programming Concepts and Design, Fourth Edition, by Steward Venit, and Elizabeth Drake (Pearson)
- Further Reading: *Engineering Problem Solving with C++* by Delores M. Etter and Jeanine A. Ingber (Pearson Prentice-Hall).
- Consulting Service: TA's will offer a consulting service. The hours and location will be posted on the course website once they are determined.

Examinations:

There will be three laboratory exams and two written tests (a midterm and a final). In the laboratory tests students will use computers. In the written tests students will answer questions on paper. The midterm will be held during class time while the final will be held during the University's examination period. It is for evaluation purposes only and will not be returned to students. The laboratory exams will take place on the dates indicated on the lab schedule. All exams will be closed book. Students will, however, be supplied with some reference sheets.

Students who miss the final exam may be granted permission to write a deferred examination provided that they have obtained a passing grade on each of the three laboratory exams. See the Undergraduate Calendar for regulations on deferred exams.

Labs:

There will be 12 lab sessions, including the three lab tests (See the schedule on next page). Students must submit their work to WebCT at the end of the lab session.

Students who do not submit AND complete (1) at least 3 labs (with an average grade of 4/10) AND (2) the third lab test will automatically get an FND grade.

Health and Safety:

Every student should have a copy of our Health and Safety Manual. An electronic version of the manual can be found at http://www.sce.carleton.ca/courses/health-and-safety.pdf

Students with Disabilities:

Students with documented disabilities requiring academic accommodations in this course must register with the Paul Menton Centre for Students with Disabilities (PMC) for a formal evaluation of disability-related needs. Documented disabilities include physical, mental, and learning disabilities, mental disorders, hearing or vision disabilities, epilepsy, drug and alcohol dependencies, environmental sensitivities, as well as other conditions. Registered PMC students are required to contact the PMC, 613-520-6608, early each term to ensure that your instructor receives your Letter of Accommodation no later than two weeks before the first assignment is due or the first in-class test/midterm requiring accommodations. If you require accommodations for your formally scheduled exam(s) in this course, please submit your request for accommodations to PMC by June 10th, 2010.

Course Outline

Lab Schedule and Lectures Schedule :

This outline is intended only a general guide to what will be covered and is subject to change. The course content on WebCT will provide more accurate schedule.

Week	Labs/Lab Tests/	Lectures
May 11	Lab #1 (Tutorial)	Introduction, Developing a program, Statements, Variables, Assignments, Operations
May 13	**Lab #2 (Submit to WebCT)**	Pseudo-Code and Sequence of instructions, Flow Charts
May 18	**Lab #3 (Test #1)**	Boolean and Decisions
May 20	Lab #4 (Tutorial)	Iterations and Loops Introduction to C++ syntax
May 25	**Lab #5 (Submit to WebCT)**	More about decisions and Iterations Breaks
May 27	**Lab #6 (Test #2)**	Problems Solving and Review
June 1	Lab #7 (Tutorial)	Functions **Midterm Examination**
June 3	**Lab #8 (Submit to WebCT)**	More about functions
June 8	Lab #9 (Tutorial)	Arrays
June 10	**Lab #10 (Test #3)**	Arrays Files (reading from and writing to)
June 15	**Lab #11 (Submit to WebCT)**	Handling Input Errors Problems Solving (1)
June 17	Lab #12	More Problems Solving (2)
June 24-28	Early Summer Examinations	

Grading Scheme:

Lab Tests: 45% (Test #1 : 5%, Test #2 : 10%, Test #3 : 30%)
Written Exams: 45% (Midterm 10%, Final 35%)
Regular Labs: 10% (2.5% for each lab submitted to WebCT)

The procedure to submit your work to WebCT is described in the course web page.