Carleton University
Department of Systems and Computer Engineering

ECOR 1606 A/B  Problem Solving & Computers  Fall 2011

Course Outline

Instructor:
Jerome Talim, Ph.D., P.Eng.
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, by defining the sequence of instructions or operations and by implementing them in a computer program or a flowchart.

Instructional Resources:
- Web Site: http://www.sce.carleton.ca/courses/ecor-1606/
- 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 two written examinations (a midterm and a final). The midterm will be held during class time while the final will be held during the University’s examination period. Final exam is for evaluation purposes only and will not be returned to students. All exams/tests will be closed book. Students will, however, be supplied with some reference sheet.

Students who miss the final exam may be granted permission to write a deferred examination provided that they have obtained a passing grade on at least four graded labs (See labs section). Refer to the Undergraduate Calendar for regulations on deferred exams.

Labs:
There will be 11 lab sessions (SIX tutorials which do not require any submission and FIVE graded labs which must be submitted at the end of the lab session). The lab schedule is as follows:

  Sept 8 - Sept 13 - Open Labs
  Sept 14 - Sept 19 - Lab #1 (Tutorial)
  Sept 21 - Sept 26 - Lab #2 (Graded)
  Sept 28 - Oct 3 - Lab #3 (Tutorial)
  Oct 5 - Oct 10 - No lab (Oct 7 Classes suspended - Oct 10 University Closed)
  Oct 12 - Oct 17 - Lab #4 (Graded)
  Oct 19 - Oct 24 - Lab #5 (Tutorial)
  Oct 26 - Oct 31 - Lab #6 (Graded)
  Nov 2 - Nov 7 - Lab #7 (Tutorial)
  Nov 9 - Nov 14 - Lab #8 (Graded)
  Nov 16 - Nov 21 - Lab #9 (Tutorial)
  Nov 23 - Nov 28 - Lab #10 (Graded)
  Dec 30 - Dec 5 - Lab #11 (Tutorial)

Students who do not submit AND complete at least 4 graded labs will automatically get an FND grade (regardless of their performance for the midterm and the final examinations).
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

You may need special arrangements to meet your academic obligations during the term. For an accommodation request the processes are as follows:

Pregnancy obligation:
write to me with any requests for academic accommodation during the first two weeks of class, or as soon as possible after the need for accommodation is known to exist. For more details visit the Equity Services website http://www.carleton.ca/equity/accommodation/student_guide.htm

Religious obligation:
write to me with any requests for academic accommodation during the first two weeks of class, or as soon as possible after the need for accommodation is known to exist. For more details visit the Equity Services website http://www.carleton.ca/equity/accommodation/student_guide.htm

Students with 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 could include but are not limited to mobility/physical impairments, specific Learning Disabilities (LD), psychiatric/psychological disabilities, sensory disabilities, Attention Deficit Hyperactivity Disorder (ADHD), and chronic medical conditions. Registered PMC students are required to contact the PMC, 613-520-6608, every term to ensure that I receive 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 only require accommodations for your formally scheduled exam(s) in this course, please submit your request for accommodations to PMC by the deadlines published on the PMC website: http://www2.carleton.ca/pmc/new-and-current-students/dates-and-deadlines/

Attendance to Lectures and Labs:
Students are expected to attend all lectures. Students are also expected to attend and complete all lab sessions (including tutorial sessions) as required. The Faculty of Engineering and Design requires students to have a conflict-free timetable, so requests to accommodate missed exams, assignment due dates, project milestones, etc., because of conflicts with other courses, jobs or vacation plans will not be considered.

Lectures Schedule: This outline is intended only a general guide to what will be covered and is subject to change.

Week 1: Introduction, Variables, Assignments, Operations, Sequence of instructions
Week 2: Flow Charts and Executions of instructions
Week 3: Boolean and Decisions,
Week 4: Iterations and Loops
Week 5: Flowchart to C++ program
Week 6: Iterations with double loops
Week 7: Problems Solving (1/3)
Week 8: Problems Solving (2/3)
Week 9: Functions (1/2)
Week 10: Functions (2/2) and Arrays (1/2)
Week 11: Arrays (2/2)
Week 12: Problem Solving (3/3)

Grading Scheme:
Total Lab Work: 40% (Each graded lab counts for 8%)
Midterm 10%,
Final 50%