Carleton University School of Computer Science

COMP 2404 -- Introduction to Software Engineering

Course Outline – Winter 2014

Final version

Sunday, January-05-14

Class Schedule

Classroom:	AT 101
Class times:	Mon. and Wed. 10:00 – 11:30
Course web site:	www.scs.carleton.ca/~claurend/Courses/COMP2404/W14

Instructor Information

Instructor	Office	Telephone	Email	Office Hours
Dr. Christine Laurendeau	5376 HP	613-520-2600 x1253	claurend@scs.carleton.ca	Mon. and Wed. 12:00 – 13:30

Teaching Assistants

Name	Email	Office Hours	Room Number
Sina Ariyan	see course web page	CSTAC	1170 HP
Troy Hildebrandt	see course web page	CSTAC	1170 HP
Ehren Choy	see course web page	TBA	1170 HP
Ken Reed	see course web page	CSTAC	1170 HP
Brandon Delaney	see course web page	CSTAC	1170 HP
Kenneth Diamond	see course web page	CSTAC	1170 HP

Course Description

Introduction to object-oriented software development, with emphasis on design and implementation of medium-sized programs. Topics include abstraction, modularity, encapsulation, reusability, and design patterns.

Topics Covered

The course will cover the following topics, although some material may be omitted due to time constraints:

- Basics of Object Design
  - Overview of software engineering principles
  - Basics of C++ development
  - Basics of classes
- Data Abstraction
  - Encapsulation
  - Inheritance
  - Design patterns
  - Overloading
  - Polymorphism
- Code Reuse
  - Templates
  - The Standard Template Library
  - Files and streams
- Software Robustness
  - Dealing with faults
  - Exception handling

Prerequisites

COMP 2401

Textbook(s)

Deitel and Deitel, "C++ How to Program", 7th edition, Prentice Hall, 2010.

Evaluation

Students will be evaluated in this course according to the following measures:

Component	Weight	Due Date
Assignments	35 %	bi-weekly
Tutorials	10 %	weekly
Midterm	15 %	in-class (Feb. 26)
Final exam	40 %	TBA

Evaluation Note

In order to pass the course, students must obtain a passing grade on the final exam.

Tutorials

The Rules:

- Tutorials begin during the week of Jan. 20.
- Tutorial attendance is **mandatory** and will be counted towards your final grade. You must attend the tutorial session for which you are registered.
- During your tutorial session, you **must** work on the assigned tutorial provided. Anyone not working on the tutorial will be asked to leave the room.
- Tutorial TAs will assign you a grade at the end of the tutorial.
- For each tutorial, you get one point (1% of your final grade) if:
  - you work on the tutorial during the entire session
  - you complete at least 50% of the tutorial work
- For each tutorial, you get zero if:
  - you are absent for any reason
  - you do other work during the session
  - you do not complete at least 50% of the tutorial work
  - you complete or even start the tutorial before the session
- Tutorial grading is at the discretion of the TA and is not negotiable.

Assignments

There will be five (5) assignments in this course, and they will be accessible from the course web page. Assignments must be submitted on Carleton's ***cuLearn*** before the due date and time. **NO LATE ASSIGNMENTS WILL BE ACCEPTED**.

Attendance

Course notes will be made available, but these will only contain the outlines for the lectures. The midterm and final exams will cover all the material presented during the lectures, the in-class coding exercises, and in the class discussions. Students are expected to attend all lectures in order to pass the course.

Collaboration Policy

Collaborating on assignments is **strictly** disallowed. You must complete the work by yourself. If you need help, please see a TA or your instructor. Posting assignment solutions on discussion boards before the due date and time is also prohibited.

Undergraduate Academic Advisor

The Undergraduate Advisor for the School of Computer Science is available in Room 5302C HP, by telephone at 520-2600, ext. 4364 or by email at undergraduate_advisor@scs.carleton.ca. The undergraduate advisor can assist with information about prerequisites and preclusions, course substitutions/equivalencies, understanding your academic audit and the remaining requirements for graduation. The undergraduate advisor will also refer students to appropriate resources such as the Science Student Success Centre, Learning Support Services and the Writing Tutorial Services.

University Policies

Student Academic Integrity Policy

Every student should be familiar with the Carleton University student academic integrity policy. A student found in violation of academic integrity standards may be awarded penalties which range from a reprimand to receiving a grade of F in the course or even being expelled from the program or University. Some examples of offences are: plagiarism and unauthorized co-operation or collaboration. Information on this policy may be found in the Undergraduate Calendar.

Plagiarism

As defined by Senate, "plagiarism is presenting, whether intentional or not, the ideas, expression of ideas or work of others as one's own". Such reported offences will be reviewed by the office of the Dean of Science.

Unauthorized Co-operation or Collaboration

Senate policy states that "to ensure fairness and equity in assessment of term work, students shall not co-operate or collaborate in the completion of an academic assignment, in whole or in part, when the instructor has indicated that the assignment is to be completed on an individual basis". Please refer to the course outline statement or the instructor concerning this issue.

Academic Accommodations for Students with Disabilities

The Paul Menton Centre for Students with Disabilities (PMC) provides services to students with Learning Disabilities (LD), psychiatric/mental health disabilities, Attention Deficit Hyperactivity Disorder (ADHD), Autism Spectrum Disorders (ASD), chronic medical conditions, and impairments in mobility, hearing, and vision. If you have a disability requiring academic accommodations in this course, please contact PMC at 613-520-6608 or pmc@carleton.ca for a formal evaluation. If you are already registered with the PMC, contact your PMC coordinator to send me your Letter of Accommodation at the beginning of the term, and no later than two weeks before the first in-class scheduled test or exam requiring accommodation (if applicable). After requesting accommodation from PMC, meet with me to ensure accommodation arrangements are made. Please consult the PMC website for the deadline to request accommodations for the formally-scheduled exam (if applicable) at http://www2.carleton.ca/pmc/new-and-current-students/datesand-deadlines/

Religious Obligation

Write to the instructor 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://www2.carleton.ca/equity/

Pregnancy Obligation

Write to the instructor 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://www2.carleton.ca/equity/

Medical Certificate

The following is a link to the official medical certificate accepted by Carleton University for the deferral of final examinations or assignments in undergraduate courses. To access the form, please go to http://www.carleton.ca/registrar/forms