Carleton University
School of Computer Science
COMP 3004B: Object-Oriented Software Engineering
Winter 2015

Last updated on December 22nd, 2014

Class Schedule
Tuesday and Thursday 13:05-14:25 Mackenzie 4499
Winter Break: Feb 16th to 20th 2015
No formally scheduled tutorials but TAs will hold weekly office hours (TBA)

Instructor Info
Jean-Pierre Corriveau  room: 5328 HP
email: jeanpier AT scs.carleton.ca
office hours: Tuesday-Thursday 11:30-12:30 or by email

Course Website  http://people.scs.carleton.ca/~jeanpier/304W15/
cuLearn will be used for all assignments posting/submissions and for announcements.
All course material will be on the course’s web page NOT on cuLearn

Compulsory Textbook: Head First Design Patterns

TAs: names, emails (office hours to be announced later)
Howard Needham howardneedham@cmail.carleton.ca
Darryl Hill DarrylHill@cmail.carleton.ca
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Short Course Description
This course teaches an agile model-driven approach to object-oriented software development. That is, we will learn how to develop those UML models that are useful in the development of OO code. We will also learn how to refactor code using design patterns.

Topics Covered
Among other topics, we will cover: a subset of the Unified Modeling Language (UML 2.0), use case maps and some of the design patterns of Gamma et al., with an emphasis on scenario modeling. Time permitting, we will also discuss: model-to-code traceability, the agile manifesto, design by contracts, death march projects, and computer ethics.

Learning Objectives
- Know the essentials of UML 2.0 and of the Gang of Four design patterns
- Understand the difficulties of a waterfall approach to software development and why incremental and agile development processes are better
- Be able to develop models and code AND maintain traceability between both in the context of team assignments.
Prerequisites
The student is assumed to have a strong background in object-oriented programming, as provided by COMP 1406, COMP 2402, and COMP 2404.
In addition to programming, you must be able to structure, write, and present industrial quality documents in clear and concise English.

Evaluation
Students will be evaluated according to the following components:

1) First Individual Assignment 15%

2) Team Project: 55% (multiple deliverables over 2 iterations)
   ➔ All team members are to log weekly their duties and the time they allocate to these duties. Each student should reserve approximately 9 hours or more per week for this course.
   ➔ All team members do not necessarily receive the same mark! For each iteration, there will be peer evaluation. The contribution of each team member will also be taken into account in determining the mark of each team member.
   ➔ Demos of the final version of the project are to be held on April 9 and/or 10th 2015
   ➔ Demos for iteration 1 of the project are also possible if not likely.

3) Open-book final exam: 30% TBA by Scheduling Office

About demos:
- A team will have to register in one of the to-be-posted available time slots.
- All team members must attend their team’s demo(s).
- Do NOT make last minute modifications to your system: make sure you rehearse and check thoroughly what you present!!

NOTES:
1) There will be NO supplemental or grade raising exam in this course.
2) No mark can be substituted for another!
   You must supply a medical certificate within a week to motivate absences to team meetings or your inability to fulfill your team duties.
3) You MUST pass the project AND the final exam to pass the course
4) For the project: the responsibility is YOURS to provide all of the necessary explanations and details for your design in your documentation.
5) Marking of the assignments will be partially relative to the other teams.
   To get an A, you must provide a better than average solution.
   To get an A+, you must dazzle us!
6) The team project MUST ideally be done in a group of 2 or 3 members. But you may be removed from a team and have to work by yourself.
7) Late submissions will not be accepted will automatically receive a mark of 0.
8) Collaboration on team projects is restricted to members of the same team. Inter-team collaboration is strictly disallowed.
Student Academic Integrity Policy

Every student should be familiar with the Carleton University student academic integrity policy. A student found violating academic integrity standards may be awarded penalties that range from a reprimand to receiving a grade of F and even being expelled from the program or University. Some examples of offences are: Plagiarism and Unauthorized Collaboration. The Academic Integrity Policy (Apr. 26, 2006) can be found at: http://www1.carleton.ca/studentaffairs/ccms/wp-content/ccms-files/academic_integrity_policy.pdf

Academic Accommodation

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.

**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 last official day to withdraw from classes in each term. For more details visit the PMC website: http://www1.carleton.ca PMC/

**Science Student Success Centre (SSSC)**

**Who are they?** The Science Student Success Centre is a central advising unit for students in Science courses. We help students achieve their goals by providing access to resources, workshops and activities that enhance their academic and study skills, and help them make key connections with their peers. Their mentors can help you customize an individual study plan which includes weekly and semester work or study schedules, and they also help when you need information on developing a new study strategy, obtaining summer job opportunities, or clarifying ideas and concepts to better understand and cope with new course content. Science mentors can help you learn how to learn what you need to learn for your classes.

Drop by the Science Student Success Centre at 1152 Herzberg Laboratories or visit at www.carleton.ca/science/sssc. They can help you succeed!