Carleton University
School of Computer Science
COMP 5104/HCIN5406: Object-Oriented Software Development
Fall 2017
Updated September 2nd, 2017

Class Schedule

Tue-Thurs	10:05-11:25	**SA311**
Office hour	Mon-Wed	11:45-12:30 or by email
	starting September 13th	

Instructor Info

Jean-Pierre Corriveau   room: 5328 HP
email: jeanpier AT scs.carleton.ca

Course Website

http://people.scs.carleton.ca/~jeanpier//514F17/

Brief Course Description

It is widely acknowledged that software quality is of the utmost importance. Yet, despite recent advancements in program verification, automatic debugging, assertion deduction and model-based testing (MBT), Ralph Johnson (of Gang of Four design patterns fame) and many others still view software verification as a "catastrophic computer science failure".

In this course, the two general themes are **design (especially modeling) for testability** and **software testing** (that is, the *execution* of software in order to find errors). We will focus not as much on unit testing as on **acceptance testing**, that is, on the *validation* of a specification of the requirements of stakeholders against one or more implementations under test. Topics include: modeling and verifying quality in object-oriented systems, as well as model-driven and test-driven approaches to testing. Particular attention will be given to *scenario testing*.

Prerequisites

The student is assumed to have a strong background in object-oriented programming, as provided by COMP 1406, COMP 2402, and COMP 2404. **Knowledge of Java/Eclipse is required**. Basic familiarity with UML 2.0, the Gang of Four design patterns, SQL and network programming are assets.

Software

Students will have to learn and use *by themselves* some modeling and testing tools (including, amongst others, **JUnit** and **Cucumber**).
There are several tutorials available online for the tools we use, in particular for JUnit (http://www.vogella.com/tutorials/JUnit/article.html) and Cucumber.

Programming assignments must be submitted through cuLearn and run on the School's machines.

There is NO textbook for this course.
The instructor will be posting some of the material discussed in class to the course's website. Students are expected to find and master additional material as they require.

Evaluation
Students will be evaluated in this course according to the following components, which will be introduced and discussed in some of the lectures of this course :

1) Assignments   80%
2) Research Project   20%

NOTES:
1) There will be NO supplemental or grade raising exam in this course.
2) No mark (or extra work) can be substituted for another!
3) The research project and most assignments will be done **individually**. Some assignments *may involve* teams of 2.

In this course, it will be of the utmost importance for students to refer to ALL material they reuse in their assignments and project.

Assignments: Information and Late Policies
Late projects will *not* be accepted and will automatically receive a mark of 0.

Science Student Success Centre (SSSC)
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. Mentors can help you customize an individual study plan which includes weekly and semester work or study schedules, and 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 3431 Herzberg Laboratories or visit http://sssc.carleton.ca/

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.
The policy is at: https://carleton.ca/senate/wp-content/uploads/Academic-Integrity-Policy1.pdf

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.

Unauthorized co-operation or collaboration
As mentioned above, collaboration between students submitting distinct assignments is NOT permitted in this course.

Equity Statements
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://www2.carleton.ca/equity/

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://www2.carleton.ca/equity/

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). Requests made within two weeks will be reviewed on a case-by-case basis. After requesting accommodation from PMC, meet with me to ensure accommodation arrangements are made. Please consult the PMC website (http://www.carleton.ca/pmc) for the deadline to request accommodations for the formally-scheduled exam (if applicable).

You can visit the Equity Services website to view the policies and to obtain more detailed information on academic accommodation at   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://www1.carleton.ca/registrar/forms/