

Carleton University
School of Computer Science
COMP 3004A: Object-Oriented Software Engineering
Fall 2017

Class Schedule

Lectures are held every Wednesday and Friday from 11:35 AM to 12:55 PM in AT 101.
Reading week: October 23-27, 2017 (no classes).

Course Website

http://olgabaysal.com/teaching/fall17/comp3004/comp3004_f17.html

Instructor

Dr. Olga Baysal
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Office Hours: by appointment

TAs:

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Short Description

Theory and development software systems. This course will discuss computer ethics. Possible topics include: software development processes, requirements engineering, use cases, user stories, class and scenario modelling, state modelling, UML, design patterns, traceability.

Topics Covered

Among topics, we will cover: software development processes, requirements engineering, architecture styles and design patterns. Time permitting, we will also discuss computer ethics.

Learning Objectives

- Understand the difficulties of a waterfall approach to software development and why incremental and agile development processes such as SCRUM are better

- Critique an existing architecture or design.
- Differentiate how various architectural styles and design patterns enhance and degrade a system's functional-and non-functional properties.
- Generate and justify an architecture and/or design given a collection of requirements.
- Produce and present concise and unambiguous architecture and design descriptions.
- Create and implement an architecture and design, refining it into a complete system.
- Gain experience in team-based software development.

Prerequisite

The student is assumed to have a strong background in object-oriented programming, as provided by COMP 1406 and COMP 2404. It is beneficial for students to have experience with version control systems. 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:

- Project deliverables (50%):
 - Deliverable 1: project proposal (5%)
 - Deliverable 2: prototype + demo (5%)
 - Deliverable 3: project architecture + design (30%)
 - Deliverable 4: presentation + video (10%)
- Final exam (50%)

Notes

1. Once the project starts, all group members are to **log weekly** their duties/achievements and the time they allocate to these duties. Each student is required to submit on a weekly basis this log to the project's repo. Failure to do so will be penalized for each missing submission.
2. The expectation is that you will work approximately 12 hours per week on this course; at least 8 of these hours will be on the project. Given that the course lasts 13 weeks, each team member is expected to work on the project *at least* 100 hours. You should be able to accomplish something pretty great in this time; please make the most of this opportunity.
3. All team members do not necessarily receive the same mark! The contribution of each team member will be taken into account by the instructor in determining the mark of each team member for the project.
4. The team project **MUST** ideally be done in a group of 4 members.
5. You will have to produce and submit a video demonstrating your app. Details will be given later.

6. Should illness (or exceptional circumstances approved by the Faculty) prevent you from submitting on time any project deliverables or any of your weekly team logs, you must email me a medical certificate within 3 days of the missed deadline.
7. You **MUST** pass the project **AND** the final exam to pass the course.
8. Collaboration on group projects is restricted to members of the same group. Inter-group collaboration is disallowed. Any form of plagiarism for the project will be reported to the Faculty.

University Policies

Student Academic Integrity Policy

Academic Integrity is everyone's business because academic dishonesty affects the quality of every Carleton degree. Each year students are caught in violation of academic integrity and found guilty of plagiarism and cheating. In many instances they could have avoided failing an assignment or a course simply by learning the proper rules of citation. See the [Academic Integrity](#) for more information.

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).

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.

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.