CSCC01H3 S

Introduction to Software Engineering

Winter 2024 Syllabus

Course Meetings

CSCC01H3 S

Section	Day & Time	Delivery Mode & Location
LEC01	Monday, 1:00 PM - 3:00 PM	In Person: HW 214
LEC02	Tuesday, 5:00 PM - 7:00 PM	In Person: SW 128
TUT0001	Tuesday, 11:00 AM - 12:00 PM	In Person: BV 473
TUT0002	Tuesday, 12:00 PM - 1:00 PM	In Person: BV 473
TUT0003	Wednesday, 1:00 PM - 2:00 PM	In Person: BV 473
TUT0004	Monday, 4:00 PM - 5:00 PM	In Person: BV 473

Refer to ACORN for the most up-to-date information about the location of the course meetings.

Course Contacts

Instructor: Rawad Abou Assi
Email: rawad.abouassi@utoronto.ca
Office Hours and Location: Mondays (11:00-13:00) and Tuesdays (15:00-17:00), IC478.

Course Overview

Introduction to software development methodologies with an emphasis on agile development methods appropriate for rapidly-moving projects. Basic software development infrastructure; requirements elicitation and tracking; prototyping; basic project management; basic UML; introduction to software architecture; design patterns; testing.

Course Learning Outcomes

By the end of the course, students will be able to:

1. Gain insight into software architecture concepts and principles, understanding their role in designing scalable and maintainable systems.
2. Apply basic UML concepts to effectively communicate and visualize software designs.
3. Identify and apply common design patterns to solve recurring design problems in software development.

4. Develop an understanding of different testing methodologies and learn how to effectively apply test automation.
5. Employ coverage criteria to systematically assess the effectiveness of software testing.
6. Acquire proficiency in using widely adopted software engineering tools and frameworks.
7. Exhibit awareness of ethical considerations in software engineering.
8. Establish a grasp of both current and emerging trends in software engineering.
9. Apply Agile principles and incorporate the learned concepts to develop a functional software system within a real-world context.

Prerequisites: CSCB07H3, CSCB09H3, and [CGPA of at least 3.5, or enrolment in a CSC Subject POSt, or enrolment in a non-CSC Subject POSt for which this specific course is a program requirement]
Corequisites: None
Exclusions: CSC301H, (CSCC40H3), (CSCD08H3)
Recommended Preparation: None
Credit Value: 0.5

Course Materials

There is no textbook for the course. Instead, for each topic, there is a set of slides based on one or more references. Slides, labs, and other course materials will be posted on Quercus. Students are encouraged to use the following Piazza forum for any relevant questions:

https://piazza.com/utoronto.ca/winter2024/cscc01

Marking Scheme

Assessment	Percent	Details	Due Date
Labs	15%		TBD
Quizzes	5%		TBD
Term test	35%	Students must score at least 35% on the term test to pass the course.	TBD
Project	45%		TBD

Late Assessment Submissions Policy

Late submissions are accepted without penalty only if proper justification is provided. Otherwise, a 10% penalty per day of lateness is applied for a maximum of three days (i.e. after three days of the due date, the submission would not be accepted).
Missed submissions result in a grade of zero unless proper justification is provided along with any necessary documentation (e.g. UofT medical certificate). In such cases, the instructor would either conduct a similar assessment or distribute the weight of the missed assessment over the other graded ones.

Note that students are allowed to declare one absence per term without having to provide documentation. As such, the first absence declaration made on ACORN serves as “proper justification” in the context of the late/missed submissions policy. Further information regarding absence declaration can be found at the following link: https://www.utsc.utoronto.ca/registrar/absence-declaration-acorn

Course Schedule

The following is a tentative schedule:

Weeks	Topic
1	Course Introduction, Agile Development
2	Software Requirements
3	Introduction to Software Architecture
4	Unified Modeling Language
5-6	Design Patterns
7-8	Software Testing
9	DevOps
10	Software Engineering Ethics
11	Emerging Trends in Software Engineering
12	Project Presentations

Policies & Statements

Sharing Course Materials

Course materials belong to your instructor, the University, and/or other sources depending on the specific facts of each situation and are protected by copyright. In this course, you are permitted to download them for your own academic use, but you should not copy, share, or use them for any other purpose without the explicit permission of the instructor.

Academic Integrity

The University treats cases of cheating and plagiarism very seriously. The University of Toronto's Code of Behaviour on Academic Matters (http://www.governingcouncil.utoronto.ca/policies/behaveac.htm) outlines the behaviours that

constitute academic dishonesty and the processes for addressing academic offences.

Potential offences in papers and assignments include using someone else's ideas or words without appropriate acknowledgement, submitting your own work in more than one course without the permission of the instructor, making up sources or facts, obtaining or providing unauthorized assistance on any assignment.

On tests and exams, cheating includes using or possessing unauthorized aids, looking at someone else's answers during an exam or test, misrepresenting your identity, or falsifying or altering any documentation required by the University.

Equity, Diversity and Inclusion

The University of Toronto is committed to equity, human rights and respect for diversity. All members of the learning environment in this course should strive to create an atmosphere of mutual respect where all members of our community can express themselves, engage with each other, and respect one another's differences. U of T does not condone discrimination or harassment against any persons or communities.

The University of Toronto is a richly diverse community and as such is committed to providing an environment free of any form of harassment, misconduct, or discrimination. In this course, I seek to foster a civil, respectful, and open-minded climate in which we can all work together to develop a better understanding of key questions and debates through meaningful dialogue. As such, I expect all involved with this course to refrain from actions or behaviours that intimidate, humiliate, or demean persons or groups or that undermine their security or self-esteem based on traits related to race, religion, ancestry, place of origin, colour, ethnic origin, citizenship, creed, sex, sexual orientation, gender identity, gender expression, age, marital status, family status, disability, receipt of public assistance or record of offences.

Accommodations

Students with diverse learning styles and needs are welcome in this course. In particular, if you have a disability/health consideration that may require accommodations, please feel free to approach me and/or the AccessAbility Services Office as soon as possible.

AccessAbility Services staff (located in Rm AA142, Arts and Administration Building) are available by appointment to assess specific needs, provide referrals and arrange appropriate accommodations 416-287-7560 or email ability.utsc@utoronto.ca. The sooner you let us know your needs the quicker we can assist you in achieving your learning goals in this course.

Recording of Classroom Material by Students

Recording or photographing any aspect of a university course - lecture, tutorial, seminar, lab, studio, practice session, field trip etc. – without prior approval of all involved and with written approval from the instructor is not permitted.