

# **CIS\*1250 – Software Design I**

## **Course Outline – Fall 2018**

**Instructor:** Luiza Antonie

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**Teaching Assistants:**

TBD

**Timetable**

**Lecture:** Monday, Wednesday, Friday, 10:30-11:20, ALEX, Room 100

**Labs:**

Monday, 11:30-1:20, THRN, Room 2420.

Wednesday, 11:30-1:20, THRN, Room 2420.

Wednesday, 1:30-3:20, THRN, Room 2420.

Thursday, 11:30-1:20, THRN, Room 2420.

Friday, 11:30-1:20, THRN, Room 2420.

## **Calendar Description**

This is an introductory course which involves a general overview of design and problem solving as it is practiced in different disciplines. The course will include an examination of the qualities of software as the end product of the design process. It will include a study of the pervasiveness of software, and the platform specific considerations. The course has an applied focus and will involve software design and development experiences in teams, a literacy component, and the use of software development tools.

### **Text Books**

- Subject to Change by Peter Merholz, Todd Wilkens, Brandon Schauer, and David Verba, O'Reilly Media, Inc., 2008. ISBN 978-0596516833.
- Universal Principles of Design, second edition, by William Lidwell, Kritina Holden, and Jill Butler, Rockport Publishers, 2010. ISBN 978-1592535873.

### **Course Web Page:**

<http://courselink.uoguelph.ca>

## **Lecture Topics**

Please note that some topics discussed in lecture may not be included in the textbook and some topics in the readings may not be discussed in lecture. In order to do well in this course, it is strongly suggested that you both complete the readings and attend the lectures. It could be a costly mistake to assume that you can use the book as a substitute for the lectures or vice-versa. Below is a preliminary list of topics covered. These may be updated as the course progresses.

1. A general history of design.
2. The brief life of software design.
3. The process of design.
4. Design and programming.
5. Design reviews.
6. Software design methodologies.
7. Evaluating the quality of design.
8. Software tools.
9. Communications practices for the designer.
10. Problem solving.
11. Group dynamics.
12. Ethical implications of software.
13. Intuitive paper prototyping.

## Course Assessment

			Learning Outcomes	Due Date&Location
Assessment 1:	Assignments (2)	20%	3,4,5,6	Oct 26, Nov 23
Assessment 2:	Lab Assignments (7-8)	30%	5,6	In the lab
Assessment 3:	Quizzes (3)	30%	1,2,3,4	Sep 26, Oct 15, Nov 16, In class
Assessment 4:	Final Examination	20%	1,2,3,4	Dec 6th, 8:30am
Total:		100%		

### Notes:

- All assignments will be posted on the course web page.
- The course is divided into two section, the first is the (Quizzes + Final Exam) and the second is the (Assignments + Lab Assignments). **You must achieve a passing grade in each of the combined sections (i.e., 25/50 for a combined section) to pass the course.** A failing grade in either of the combined sections results in the following calculation for your final grade: Final Grade = MIN(45, total grade).
- All students will benefit from a 48 hour grace period after the original due date of the assignments. In all but exceptional circumstances, this should allow enough flexibility to accommodate any unforeseen events that could otherwise impact your work. In fairness to the vast majority of students who are responsible in handing in their work on time, a deduction of 10% will be applied on the first minute that the assignment is handed in after the grace period. An additional 20% deduction will be applied every 24 hours thereafter.

- It is academic misconduct to collaborate on assignments which do not explicitly allow for group work. It is also misconduct to represent other student's work as your own. There are penalties for doing this. All parties to misconduct will be reported to the Director of the School of Computer Science as participants in academic misconduct. See Academic Misconduct in Section VIII of the Undergraduate Calendar for the causes and penalties of misconduct.
- Failure to submit assignments correctly will result in a substantial loss of marks.

## Course Learning Outcomes

### Knowledge and Understanding:

1. The student should be able to identify what is software design.
2. Identify and explain where software design is used and why it is an integral part of the software development process.
3. The student should be able to demonstrate the ability to gather system requirements.
4. The student should be able to demonstrate the ability to understand and implement the design of a simple software product.

### Skills:

5. The student should be able to effectively communicate the concepts covered in the course. The student should be able to communicate with his/her peers when working in groups.
6. The student will develop problem solving skills, show creativity and critical thinking working on the assignments.

## University Policies

### Academic Consideration

When you find yourself unable to meet an in-course requirement because of illness or compassionate reasons, please advise the course instructor in writing, with your name, id#, and e-mail contact. See the academic calendar for information on regulations and procedures for Academic Consideration: <http://www.uoguelph.ca/registrar/calendars/undergraduate/current/c08/c08-ac.shtml>

### Academic Misconduct

The University of Guelph is committed to upholding the highest standards of academic integrity and it is the responsibility of all members of the University community, faculty, staff, and students to be aware of what constitutes academic misconduct and to do as much as possible to prevent academic offences from occurring. University of Guelph students have the responsibility of abiding by the University's policy on academic misconduct regardless of their location of study; faculty, staff and students have the responsibility of supporting an environment that discourages misconduct. Students need to remain aware that instructors have access to and the right to use electronic and other means of detection. Please note: Whether or not a student

intended to commit academic misconduct is not relevant for a finding of guilt. Hurried or careless submission of assignments does not excuse students from responsibility for verifying the academic integrity of their work before submitting it. Students who are in any doubt as to whether an action on their part could be construed as an academic offence should consult with a faculty member or faculty advisor. The Academic Misconduct Policy is detailed in the Undergraduate Calendar: <https://www.uoguelph.ca/registrar/calendars/undergraduate/2016-2017/c08/c08-amisconduct.shtml>

### **Accessibility**

The University of Guelph is committed to creating a barrier-free environment. Providing services for students is a shared responsibility among students, faculty and administrators. This relationship is based on respect of individual rights, the dignity of the individual and the University community's shared commitment to an open and supportive learning environment. Students requiring service or accommodation, whether due to an identified, ongoing disability or a short-term disability should contact the Centre for Students with Disabilities as soon as possible. For more information, contact CSD at 519-824-4120 ext. 56208 or email [csd@uoguelph.ca](mailto:csd@uoguelph.ca) or see the website: <http://www.csd.uoguelph.ca/csd/>

### **Drop date**

The last date to drop one-semester courses, without academic penalty, is Friday, November 2, 2018. For regulations and procedures for Dropping Courses, see the Academic Calendar: <https://www.uoguelph.ca/registrar/calendars/undergraduate/current/c03/c03-fallsem.shtml>

### **Policy on Re-grade Request**

Any request to remark an exam, assignment or quiz must be addressed to your instructor in writing (hard copy) within one week and must include the following (i) your name, contact information (telephone and email), and signature, (ii) a clear description of where and why you feel that you were graded in error, and (iii) the following statement exactly as it appears here "In requesting a re-grade I promise that I have not written on, erased, or in any way changed my copy of the exam/assignment since it was handed back to me. I understand that to do so would constitute a serious academic offence. I also understand that my entire exam/assignment will be re-graded (with particular attention paid to the points that I have brought up) and understand that as a result my score on the exam/assignment could fall as well as rise."

### **E-mail Communication**

As per university regulations, all students are required to check their *uoguelph.ca* e-mail account regularly: e-mail is the official route of communication between the University and its students. When contacting the TAs and instructor by e-mail, please be sure to use your University of Guelph e-mail address. We apologize not to be able to reply to e-mail inquiries sent from outside the university.

**Recording of Materials:** Presentations which are made in relation to course work, including lectures, cannot be recorded or copied without the permission of the presenter, whether the instructor, a classmate or guest lecturer. Material recorded with permission is restricted to use for that course unless further permission is granted.