

# **CIS\*3750 – System Analysis and Design in Applications**

## **Course Outline – Winter 2019**

**Instructor:** Luiza Antonie

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### **Teaching Assistants:**

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### **Timetable**

**Lecture:** Monday, Wednesday, Friday, 9:30-10:20, MCLN, Room 102

#### **Labs:**

Tuesday, 12:30-2:20, THRN, Room 2420.

Wednesday, 3:30-5:20, THRN, Room 2420.

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

Thursday, 2:30-4:20, THRN, Room 2420.

## **Calendar Description**

This course is an introduction to the issues and techniques encountered in the design and construction of software systems, focusing on the theory and models of software evolution. Topics include requirements and specifications, prototyping, design principles, object-oriented analysis and design, standards, integration, risk analysis, testing and debugging.

## **Learning Outcomes**

1. Collect and critically evaluate client needs to develop software requirements that are specific, measurable, and categorized.
2. Estimate a timeline for software development by identifying dependencies in, establishing a prioritized list of, and estimating production time for the software requirements.
3. Improve system design by collecting and synthesizing client feedback provided during prototyping sessions.
4. Create design artifacts to succinctly communicate software requirements to teammates and clients.
5. Implement and test a system's solution that addresses the client needs.

## Prerequisites & Restrictions

Students enrolled in CIS3750 are expected to have the skills and knowledge covered in CIS2750, as well as strong writing skills, the ability to work in teams, and strong communication skills.

Prerequisite: Software Systems Development and Integration (CIS2750)

Restrictions: Systems Analysis & Design in Applications (CIS3430)

### Text Books

- **Required:** Head First Software Development by Pilone and Miles, 2008
- **Recommended:** Head First Object Oriented Analysis and Design by McLaughlin, Pollice and West, 2007

### Course Web Page:

<http://courselink.uoguelph.ca>

Course materials, announcements and grades will be regularly posted to the CIS3750 course website. It is your responsibility to check the website regularly.

## Course Assessment

	Due Date	Grade Weight
Project Deliverables		Total: 60%
Assignment 1: Team, Requirements, and User Stories	Feb 1st	10%
Assignment 2: Use Cases, Time Estimations, and Tasks	Feb 15th	10%
Demo 1: Prototype	March 4th week	10%
Demo 2: Final Product	March 25th week	10%
Project Report: Final Product	April 3rd	20%
Exams		Total: 40%
Quiz 1	Feb 11th	10%
Quiz 2	March 11th	10%
Final Exam	April 14th, 11:30am	20%

### Notes:

- All assignments will be posted on the course web page.
- The course is divided into two sections, the first is the exams and the second is the project (this includes the assignments and the demos). **You must achieve a passing grade in each of the sections to pass the course.** A failing grade in either of the 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 30% 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.

## 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, student ID, and e-mail contact. See the academic calendar for information on regulations and procedures for Academic Consideration.

### 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.

### 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, March 8, 2019. For regulations and procedures for dropping courses, see the Academic Calendar.

**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.