UNIVERSITY of GUELPH

CIS*4250 Software Design V

Winter 2020
Section(s): C01

School of Computer Science
Credit Weight: 0.50
Version 1.00 - December 13, 2019

_____

1 Course Details

1.1 Calendar Description

This is a capstone course which applies the knowledge gained from the previous Software Design courses to a large team project. 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.

Pre-Requisites: CIS*2750, CIS*3260

1.2 Course Description

Students will work as a team to create a working product based on the instructor's specifications and guidelines, keeping each other on track, setting and meeting milestones, and choosing appropriate software (open source libraries to assist development, version control, documentation, etc.).

1.3 Timetable

Lectures:
none

Labs:

The lab periods will be used for meetings between the student teams and the instructor. Labs will also be used for demos, and the schedule for the demos will be established on a team-by-team basis.

Timetable is subject to change. Please see WebAdvisor for the latest information.

1.4 Final Exam

None.

_____

2 Instructional Support

2.1 Instructional Support Team

Instructor: Gregory Klotz B.Sc. M.Sc. Ph.D.
Email: gklotz@uoguelph.ca
Telephone: +1-519-824-4120 x52711
Office: REY 1113

_____

3 Learning Resources

3.1 Required Resources

OpenEd (Website)
https://opened.uoguelph.ca
Meeting information: all meeting schedules, including dates, locations, and team names, will be posted online.

Evaluation details: the details on all evaluation components for this course will be made available on the course website

_____

4 Learning Outcomes

4.1 Course Learning Outcomes

By the end of this course, you should be able to:

1.
    1. Design a software system based on the analysis of desired requirements, available technologies, and timeline constraints.
    2. Design a set of project milestones for a small software development team using software engineering and project management practices.
    3. Develop a complete software system in a team environment.
    4. Create and deliver software releases according to the designed milestone schedule and requirement specifications.
    5. Employ collaborative tools to manage the software development lifecycle.

4.2 BComp Honours Degree

Successfully completing this course will contribute to the following:

#	Outcome	Learning Outcome
1	Critical and Creative Thinking	1
1.1	Analyze complex real-world problems. Devise efficient, well-documented computer-based solutions for those problems.	1
1.2	Analyze a software development problem. Consider a range of possible approaches to its solution and identify the most promising approaches.	1
1.3	Apply a knowledge of fundamental algorithms, programming techniques, and design to create software systems.	1
1.4	Design, correctly implement and document solutions to significant computational problems. Explain advanced, contemporary concepts related to software development.	1
2	Literacy	1
2.3	Evaluate current techniques, hardware, software, and tools required for the production of software systems. Select the most appropriate tools for the task.	1
3	Global Understanding	1
3.4	Recognize the social and cultural responsibilities of a professional working in the discipline of computer science.	1
4	Communicating	1
4.1	Negotiate, clarify, and document software requirements. Communicate effectively and professionally using audience appropriate technical language.	1
4.2	Compose written reports to convey technical material meeting accepted standards for writing style.	1
4.3	Locate and evaluate relevant written information related to a software development project, evaluate the contents, and judge the relative importance of the information.	1
4.4	Communicate effectively with a range of audiences. Present ideas at multiple levels of abstraction and from multiple perspectives.	1
5	Professional and Ethical Behaviour	1
5.1	Work effectively as a team, managing conflicts, to accomplish a common	1

#	Outcome	Learning Outcome
	goal. Recognize the different roles and responsibilities within a team.	
5.2	Interpret the professional and ethical responsibilities surrounding software development. Demonstrate ethical practises.	1
5.3	Generate goals and milestones and recommend task breakdowns for software projects.	1
5.4	Recognize the need for, and have the ability to engage in, life-long learning. Consistently organize time and committments to ensure success.	1

5 Teaching and Learning Activities

6 Assessments

6.1 Assessment Details

Technical Design Document (15%)
Due: Mon, Jan 6 - Fri, Jan 24
A thorough description of what your team will build and how.

Progress Report (40%)
Date: Mon, Jan 6 - Fri, Feb 28
Demo of in progress and functional software.

Final Project (45%)
Date: Mon, Jan 6 - Fri, Mar 27
The final version of the project. Includes software, documentation, user guide, marketing material, etc.

7 University Statements

7.1 Email Communication

As per university regulations, all students are required to check their e-mail account regularly: e-mail is the official route of communication between the University and its students.

7.2 When You Cannot Meet a Course Requirement

When you find yourself unable to meet an in-course requirement because of illness or compassionate reasons please advise the course instructor (or designated person, such as a

teaching assistant) in writing, with your name, id#, and e-mail contact. The grounds for Academic Consideration are detailed in the Undergraduate and Graduate Calendars.

Undergraduate Calendar - Academic Consideration and Appeals
https://www.uoguelph.ca/registrar/calendars/undergraduate/current/c08/c08-ac.shtml

Graduate Calendar - Grounds for Academic Consideration
https://www.uoguelph.ca/registrar/calendars/graduate/current/genreg/index.shtml

Associate Diploma Calendar - Academic Consideration, Appeals and Petitions
https://www.uoguelph.ca/registrar/calendars/diploma/current/index.shtml

7.3 Drop Date

Students will have until the last day of classes to drop courses without academic penalty. The deadline to drop two-semester courses will be the last day of classes in the second semester. This applies to all students (undergraduate, graduate and diploma) except for Doctor of Veterinary Medicine and Associate Diploma in Veterinary Technology (conventional and alternative delivery) students. The regulations and procedures for course registration are available in their respective Academic Calendars.

Undergraduate Calendar - Dropping Courses
https://www.uoguelph.ca/registrar/calendars/undergraduate/current/c08/c08-drop.shtml

Graduate Calendar - Registration Changes
https://www.uoguelph.ca/registrar/calendars/graduate/current/genreg/genreg-reg-regchg.shtml

Associate Diploma Calendar - Dropping Courses
https://www.uoguelph.ca/registrar/calendars/diploma/current/c08/c08-drop.shtml

7.4 Copies of Out-of-class Assignments

Keep paper and/or other reliable back-up copies of all out-of-class assignments: you may be asked to resubmit work at any time.

7.5 Accessibility

The University promotes the full participation of students who experience disabilities in their academic programs. To that end, the provision of academic accommodation is a shared responsibility between the University and the student.

When accommodations are needed, the student is required to first register with Student Accessibility Services (SAS). Documentation to substantiate the existence of a disability is required; however, interim accommodations may be possible while that process is underway.

Accommodations are available for both permanent and temporary disabilities. It should be noted that common illnesses such as a cold or the flu do not constitute a disability.

Use of the SAS Exam Centre requires students to book their exams at least 7 days in advance and not later than the 40th Class Day.

For Guelph students, information can be found on the SAS website
https://www.uoguelph.ca/sas

For Ridgetown students, information can be found on the Ridgetown SAS website
https://www.ridgetownc.com/services/accessibilityservices.cfm

7.6 Academic Integrity

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 encourages academic integrity. 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.

Undergraduate Calendar - Academic Misconduct
https://www.uoguelph.ca/registrar/calendars/undergraduate/current/c08/c08-amisconduct.shtml

Graduate Calendar - Academic Misconduct
https://www.uoguelph.ca/registrar/calendars/graduate/current/genreg/index.shtml

7.7 Recording of Materials

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

7.8 Resources

The Academic Calendars are the source of information about the University of Guelph's procedures, policies, and regulations that apply to undergraduate, graduate, and diploma programs.

Academic Calendars
https://www.uoguelph.ca/academics/calendars

_____