CIS3750Fall 2016

Systems Analysis & Design in Application

contact

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course description

An introduction to the issues and techniques encountered in the design and construction of software systems. 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.

lecture, lab & final exam times

You are expected to attend every class and every lab. You are also expected to come to class having reviewed certain topics so that classroom time can be spent applying what you've learned to your course project.

Lec 01/02	**Tuesday/Thursday, 11:30am-12:50pm**	MAC149
Lab 01	**Wednesday, 8:30am-10:20am**	REYN114
Lab 02	**Friday, 12:30pm-2:20pm**	THRN2420
Exam	**TBD**	TBD

prerequisites & restrictions

Prerequisite	**Software Systems Development and Integration**	CIS2750
Restrictions	**Systems Analysis & Design in Applications**	CIS3430

texts

Required	**Head First Software Development** Pilone, and Miles	2008
Suggested	**Head First Object Oriented Analysis and Design** McLaughlin, Pollice, and West	2007

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grading scheme

The following grading scheme will be used to assess your progress in the course. Note that there are no extensions for the assignments, reports, lab demos, or the final exam. Submit whatever you have completed by the due date. Failure to submit will result in an automatic grade of 0 being assigned. Your assignments should be submitted using LaTeX, and in PDF format unless otherwise stated by the instructor. If you are having difficulty with an assignment, please discuss this with the instructor in advance of the due date. Do not wait until the last day to do so.

Assignment 1	**Due September 23, 11:00pm** Topics: Your Team, Your Client, Requirements, and User Stories	10%
Assignment 2	**Due October 14, 11:00pm** Topics: Use Cases, Time Estimations, and Tasks	10%
Demo 1	**In Lab Demo 1 - October 26/October 28** Topics: Paper Prototype, Lab Demo Report Due 1 Week Following Lab Demo, 11:00pm	10%
Demo 2	**In Lab Demo 2 - November 9/November 11** Topics: Wireframe Prototype, Lab Demo Report Due 1 Week Following Lab Demo, 11:00pm	10%
Demo 3	**In Lab Demo 3 - November 23/November 25** Topics: Final Prototype, Lab Demo Report Due 1 Week Following Lab Demo, 11:00pm	10%
Quizzes	**5 Biweekly Quizzes (Weeks 3-11)** Topics: Varies, Typically Released Mondays, 8:00am, And Due Following Sunday, 11:00pm	15%
Project	**Final Project Report - December 5, 11:00pm** Topics: Final Project Report	15%
Exam	**Final Exam - TBD** Topics: All Course Content	20%

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class rules

- If/when you send an email to me or the TA, you must include the course code CIS3750 in the subject line. Emails that do not include the course code will not be prioritized.
- All assignments and project materials should include the course code CIS3750, and where applicable - your name and your group's name.
- The assignments, lab demos, and the final project will include group (~80%) and individual work (~20%). Each member will initially receive the same grade for the group portion. The grade will be modified based on assessments from you and your group members.
- Lab demos are mandatory, and will include feedback from the client. Lab demos will be graded based on your performance with the client, their feedback, as well as with a post-mortem report. If you miss a lab demo, you will receive a grade of 0 for the lab demo and the post-mortem.
- Assignments and post-mortem reports are to be uploaded to Moodle, and are due by 11pm as indicated on the assignment/report description sheets.
- **A late assignment/post-mortem report is automatically assigned a grade of 0 for all team members.** If your team submits the assignment/post-mortem on time, but you have not submitted your *individual* portion of the assignment/post-mortem, you will receive a 0 on your individual portion, but this will not affect the team portion of the grade.
- There will be 5 quizzes throughout the semester. **You must achieve a combined passing grade on the quizzes and final exam to pass the class. If you do not achieve a combined passing grade on the quizzes and final exam, your final grade will be your combined quiz and exam grade.**
- Quizzes will be individual work. You will each receive an individual grade based on the work you submit. Quizzes will be made available usually at 8am every Monday (starting September 26). You will typically have until the following Sunday at 11pm to complete the quiz. You will have two attempts on each quiz. If you are in the middle of a quiz and the quiz closes (i.e. you are working past 11pm on the date it is due), the quiz will automatically be closed and you will receive a grade on whatever work you have completed.
- You are expected to take excellent notes. You will need them for your quizzes and final exam, as a large portion of the quiz and final exam questions will come directly from classroom discussion.
- The final project is due by 11pm December 5, 2016. The final project will be uploaded to Moodle. **A late final project is automatically assigned a grade of 0.** If your team submits the report on time, but you have not submitted your *individual* portion of the report, you will receive a 0 on your individual portion, but this will not affect the team portion of the grade.
- You are expected to show up to every class, and to every lab. There are 24 classes and 11 labs.
- The final exam will be cumulative.
- If you miss the final exam, you must talk with your academic counsellor and follow University of Guelph policies on this matter. The instructor can not do anything in this situation.

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topics by date

Note that weekly labs are not listed below, except in the case of lab demo days.

WEEK	TOPICS COVERED†	HFSD	OOAD	PC	DATE D/M
Intro	Introductions, Project & CES	1		1	8/9
Week 1	Getting To Know The Client△	2,3		2,3	13/9
	Group Dynamics				15/9
Week 2	Research & User Stories			4,5,6	20/9
	Iterations & Project Planning				22/9
	Assignment 1 Due				23/9
Week 3	Use Cases	4	2	7	27/9
	Requirements & Tasks				29/9
Week 4	Quiz 1 Due			8,9	2/10
	Requirements & Tasks				4/10
	Prototyping				6/10
Week 5	NO CLASS				11/10
	Class Diagrams				13/10
	Assignment 2 Due				14/10
	Quiz 2 Due				16/10
Week 6	Software Design & Management	6		10	18/10
	Testing & Test Cases				20/10
Week 7	Test Cases & Sequence Diagrams				25/10
	Lab 6: Lab Demo 1 - Paper Prototype△				26/10
	Sequence Diagrams				27/10
	Lab 6: Lab Demo 1 - Paper Prototype△				28/10
	Quiz 3 Due				30/10
Week 8	Design Models		7,8	13-16	1/11
	Design Models				3/11
Week 9	Test Plans				8/11
	Lab 9: Lab Demo 2 - Wire Frame△				9/11
	Test Plans & Bugs				10/11
	Lab 9: Lab Demo 2 - Wire Frame△				11/11
	Quiz 4 Due				13/11
Week 10	Bugs & Development Process	11	10	18-20	15/11
	Bugs & Development Process				17/11
Week 11	Development Process	12			22/11
	Lab 11: Lab Demo 3 - Final Prototype△				23/11
	OO Design Process				24/11
	Lab 11: Lab Demo 3 - Final Prototype△				25/11
	Quiz 5 Due				27/11
Week 12	OO Design Process				29/11
	Final Comments				1/12
Exams	Final Project & Exam				TBD

†*order or content may vary*

△*community partner visiting*