Université d'Ottawa · University of Ottawa
School of Electrical Engineering and Computer Science (EECS)

SEG3125 Analysis and Design of User Interfaces
Summer 2018
(3 hours lecture, 1.5 hours lab, 1.5 hours tut, 3 credits).

Description

Psychological principles of human-computer interaction. Evaluation of user interfaces. Usability engineering. Task analysis, user-centered design and prototyping. Conceptual models and metaphors. Software design rationale. Design or windows, menus and commands. Voice and natural language I/O. Response time and feedback. Colour, icons and sound. Internationalization and localization. User interface architectures and APIs. Case studies and project. Prerequisites: (SEG2105)

Schedule

Day	Time	Room	Activity
Monday	11:30 – 13:00	SMD 425	Lecture
Wednessday	11:30 – 13:00	SMD 425	Lecture
Wednesday	14:30 – 16:00	FTX 147B	Tutorial
Tuesday	10:00 – 11:30	STE 2060	Lab
Thursday	11:30 – 13:00	STE 2060	Lab

Professor

Dr. Fadi Malek
Email: malek@uottawa.ca

Books

- Textbook
  Rogers, Sharp, Preece, "Interaction Design – beyond human Computer Interaction"
  Fourth edition – Wiley, 2015

- References:

Dix, Finlay, Abowd and Beale, "Human-Computer Interaction: Second Edition", Prentice-Hall, 1998

Course Web Site: On BrightSpace

- Go to http://uottawa.brightspace.com.
- Enter your uoAccess ID and password in the appropriate cells and click on "Login".
- Click on SEG 3125 to access the course web site.

Course objectives

When you complete this course you should have a good understanding of the following:

- The psychological principles underlying effective user interfaces
- How to evaluate user interfaces using questionnaires, experiments, and usability engineering. You will have extensive lab experience with these techniques
- How to perform task analysis and design effective conceptual models to help the user understand the system
- Perform user-centered design as part of the software engineering process
- Design user interfaces following guidelines that are grounded in solid scientific understanding. You will design several prototype UIs, present them to the class and have them evaluated by your peers and the professor
- Prototype a design using a language like Visual Basic, Adobe Flash, Java, Android, Microsoft XNA, etc.

Marking Scheme

Assignments:	10%
Project (3 Phases+ Final Report):	20%
Labs (individual):	10%
Midterm :	20%
Final Exam:	40%

Note: You should get at least 50% on the all the exams in order for the assignments/labs grades to be counted. Otherwise, the assignments/labs will not be considered.

Plagiarism

Plagiarism (copying and handing in for credit someone else's work) is a serious academic offence that will not be tolerated. Note that the person providing solutions to be copied is also committing an offence as they are an active participant in the plagiarism. The person copying and the person copied from will be reprimanded equally according to the regulations set by the University of Ottawa. Please refer to the section on academic offences in the Undergraduate Calendar and the notice on plagiarism on the University of Ottawa website for additional information:
www.uottawa.ca/academic/info/regist/crs/0305/home_5_ENG.htm

Assignments and Projects schedule

Assignment	Due Date
Assignment 1. Video-Taped Evaluation (5%) Work in pairs	27 May 2018
Assignment 2. Heuristic Evaluation (5%) Work in pairs	8 June 2018

Project Deliverable	Due Date
Project Proposal	20 May 2018
Project – Phase 1 5 %	17 June 2018
Project – Phase 2 5%	1 July 2018
Demonstration and Class Presentation 5%	Last 2 weeks of classes
FINAL REPORT 5%	20 July 2018

Complete Schedule

Week of	Tutorial	Lab	Assignment	Project
Apr 30th	*No Tutorial*	*No Lab*		
May 7th	Android – Part 1	*No Lab*		
May 14th	Android – Part 2	**Lab 1** - Android App		Project Phase 0 due **(May 20th)**
May 21nd	Android – Part 3	**Lab 1** - Android App	Assignment 1 due **(May 27th)**	
May 28th	Android – Part 4	**Lab 1** - Android App		
Jun 4th	HTML5+Bootstrap (Part 1)	**Lab 1** - Android App	Assignment 2 due **(June 8th)**	
Jun 11th	HTML5+Bootstrap (Part 2)	**Lab 2** - E-Commerce Website		Project Phase 1 due **(June 17th)**
Jun 18th	Javascript + React	**Lab 2** - E-Commerce Website		
Jun 25th	PHP/WebGL/Game development (Unity) - Part 1	**Lab 2** - E-Commerce Website		Project Phase 2 due **(July 1nd)**
Jul 2th	PHP/WebGL/Game development (Unity) - Part 2	**Lab 2** - E-Commerce Website		
Jul 9th	*No Tutorial*	*No Lab*		Class Presentations start this week (**July 9th**)
Jul 16th	*No Tutorial*	*No Lab*		Project Phase 3 – Final Report (**July 20th**)
Jul 23th				