CIS 443/543: User Interfaces

Course Syllabus
October 30, 2009

Fall *2009:* Tues/Thurs 10:00-11:20 am, 200 Deschutes
Prerequisites: CIS 313, 323 & 314 for undergraduates; CIS graduate standing for graduates.
Description: This course is intended as an introduction to user interface software engineering. Emphasis will be placed on the theory and methods of Human-Centered Design, understanding the behavior of the user, and implementation of an interactive system.

Week	Date	Topic	Reading	Lecture	Due
1	9/29	Introduction to User Interfaces & Usability Engineering		1	
	10/1	What is usability?	S&P 1.1-1.3	2	
		Universal Usability & Accessibility	S&P 1.4 Reading #1	3	
2	10/6	Human-Centered Development	S&P 3 (optional 2)	4	
	10/8	Human-Centered Development	Reading #2		
3	10/13	Studio for exercise			Exercise #1
	10/15	Human-Centered Development Usability Evaluation Methods	Reading #2 S&P 4	5	QUIZ #1
4	10/20	Usability Evaluation Methods	S&P 4	5	
	10/22	Usability Testing with Users	Reading #3 & #4	6	
5	10/27	Command Languages	S&P 7.1-7.3	7	
	10/29	Studio for exercise			Exercise #2
6	11/3	Command Languages Menus	S&P 7.1-7.3 S&P 6	7 8	QUIZ #2
	11/5	Direct Manipulation, 3D Graphics/Virtual Environments	S&P 5	9	QUIZ #3 (take-home)
7	11/10	Interaction Devices (Keyboards, Pointing Devices & Displays)	S&P 8	10	
		Interaction: Performance Prediction	Reading #5	11	
	11/12	Collaboration Information Search	S&P 9 S&P 13	12 13	QUIZ #4
8	11/17	Studio for exercise			Exercise #3
	11/19	Field Trip to Pipeworks			
9	11/24	Studio for final project: initial design ideas			Project
	11/26	THANKSGIVING Holiday			

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10	12/1	Information Visualization Natural Language Processing	S&P 14 S&P 7.4	14 15	QUIZ
	12/3	Studio for final project usability testing & design revisions			Project
11	12/8 Tues. 8am!	Presentations for Final Project. DESCHUTES 200 Reports DUE by 5 pm in CIS office.			Project

Instructor: Professor Sarah Douglas, 343 Deschutes, phone 346-3974, email: douglas@cs.uoregon.edu. Office hours: 2-3pm Tues/Thurs or by appointment.

Communication: There will be a website at http://www.cs.uoregon.edu/classes/09F/cis443 and a mailing alias "cis443@cs.uoregon.edu". Please mail to the class alias if you wish to contact all students. Correspondence to the instructor will be shared if necessary while preserving the anonymity of the sender. Lecture slides and readings will be posted on the Web site.

Required Readings: There is one required text available in the UO Bookstore: *Designing the User Interface: Strategies for Effective Human-Computer Interaction* by Shneiderman & Plaisant, 5th edition. This book will be called "S&P" in the syllabus with the chapter specified by number. In addition, there are short readings.

Reading #1	"Bridging the Gap between Accessibility and Usability" by Mary Frances Theofanos and Janice Redish. In *Interactions* magazine November/December 2003, pp.36-51, published by ACM.
Reading #2	"Rapid Scout: Bridging the Gulf Between Physical and Virtual Environments" by David Ranson et al. In *Proceedings of CHI 96*, pp. 442-449, published by ACM.
Suggested Reading	"Working Through Task-Centered System Design" by Saul Greenberg
Reading #3	Usability test: Does iPhone match the hype? Sept 21, 2007 Computerworld <http://www.computerworld.com/action/article.do?command=viewArticleBasic&articleId=9037858&pageNumber=1>
Reading #4	"How to do usability testing" by Sarah Douglas
Reading #5	"Keystroke Level Model: Its concepts and application" by Sarah Douglas

Assignments: There will be 3 studio design exercises. There will be 4, 15-minute quizzes based primarily on the textbook and lecture material. The exercises and final project will be done as a team effort. All teams must have from 2-3 people. The final project will be due at the end of the class. This will be a small implemented system for the final project.

Programming: Programming can be done in any language or system that is appropriate.

Grading	Attendance & Participation	10% of course grade
	Exercises	30% of course grade, 10% each

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Quiz (4)	20% of course grade, 5% each
Final Project	40% of course grade

Policy on Attendance and Participation: Student discussion and participation will be an important part of the weekly exercises and all other classes. Please read the chapters in preparation for discussion.

Policy on Graduate Student Grading: Since this is a combined undergraduate/graduate class, I will grade graduate students differently in several ways. Graduate students will often have different problems to do, and, secondly, graduate student answers on problems will be held to higher expectations of quality.

Policy on Team Grading: Each member of the team is expected to contribute equally to the group. You will be graded on participation in the group as well as participation in class. For any group assignment, I will ask each member of a group to fill out a form evaluating participation of team members.

Policy on Late Assignments: All assignments are due at 10am at the beginning of class on the date due. Late assignments will not be accepted since the point of the assignment is to discuss it in class. If you think you have a legitimate reason to argue for an exception from this rule, make sure that you communicate it *prior* to the due date.

Policy on Cheating and Plagiarism: Assignments constitute a large part of evaluation; hence it is crucial that they reflect your individual and group work. Any traces of plagiarism, i.e. copying someone else's work without attribution, will be dealt with according to the University regulations.   On the other hand, I encourage you to share ideas and discuss the material in the lectures and textbook with other members of the class.

Policy on Prerequisite: This course has a prerequisite of CIS 313, 323 and CIS 314. These courses must be completed with a grade of C- or better, and are needed for an overall successful experience for the students enrolled in the class. If you have not fulfilled these prerequisites, we ask that you withdraw from the class. If you remain in the class, the instructor may choose not to evaluate your work and you will not receive credit for the course. If you have questions, please see the instructor or a CIS advisor for help in planning your schedule.

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