

THE UNIVERSITY OF TEXAS AT DALLAS
Department of Computer Science
Course Syllabus, Fall 2016

COURSE NUMBER: CS6326.001

COURSE TITLE: Human Computer Interactions

CREDIT HOURS: 3

Class Hours: Tuesday/Thursday from 11:30AM to 12:45PM
Location: ECSN 2.126

INSTRUCTOR: John Cole
Office: ECSS 4.606
Office phone: 972/883-6353
Office Hours: T/Th from 12:00 noon to 2:00 PM and by appointment.
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TA: TBD

Office:

Course Description

This graduate course is intended to provide an in-depth understanding of the intricacies of user experience design, with a special orientation toward mobile devices. Topics include screen design for various kinds of user input, design of on-screen controls, input from other sources such as speech and touch, and the use of mobile device sensors. On the output side, we will cover various forms of user feedback, including display of information, sound, and haptic feedback. You will understand psychological factors in UX design. Evaluation of interfaces based upon various criteria will be covered. You will be expected to be competent in the Java programming language and either know or be willing to learn C#.

Course Pre-requisites, Co-requisites, and/or Other Restrictions

Prerequisite: CS 5343 Algorithm Analysis and Data Structures

Course Goals

1. Understand cognitive psychology as it relates to user interface design
2. Understand models and principles of the design of the user experience
3. Understand different types of devices and their interface requirements
4. Develop communication skills related to the user experience
5. Participate in a group project to design a user interface

Textbook

There is no textbook for this course. All material will be from slides or published papers. Some of the material is from *Human-Computer Interaction*, Third Edition, by Dix, Finlay, Abowd, and Beale. Published by Pearson/Prentice Hall. ISBN 978-0-13-046109-4

Grading

Students will be evaluated on the basis of three factors:

1. Their performance on three exams.
2. Their performance on various programs and other projects.
3. Their performance on other homework and quizzes.

Assignments and Homework: 25% of grade

Exams and Quizzes: 75% of grade

Points on quizzes will be added to your cumulative test grade. Points on small programming problems (designated "homework" rather than "Assignment") will be added to your cumulative programming assignments grade. Quizzes and small homework problems generally count 10 points while exams and assignments count 100.

There will be no extra credit work.

Grading will be on a curve, although it is the opinion of the instructor that there is a certain minimum set of knowledge which you must demonstrate to be considered proficient in the subject. The curve takes into account problems in measurement and will not be decided until all grades are in. Your midterm grade will have a limited number of data points and may or may not be an accurate reflection of your final grade, just your proficiency up to that point. The base grading scale given below may be adjusted based upon the performance of the class as a whole:

A - 90% to 100%

B - 80% to 89%

C - 70% to 79%

D - 60% to 69%

Below 60% is failing.

GENERAL RULES:

- 1) There will be regularly assigned reading and homework problems. Reading assignments should be done before the class lecture, and are to be found in the class schedule on my Web site. Homework problems will

require the student to spend time writing or programming a computer outside of class.

- 2) Assignments are due on the dates and at the times posted in eLearning. Late assignments will lose 20 points per day up to five days, after which no credit will be given. All assignments are to be done individually unless the description in eLearning designates it as a team project.
- 3) Although class attendance is not mandatory, it will be documented and you are expected to attend. Pop quizzes may be given, for which there is no makeup.
- 4) Exams are closed book, closed notes, no electronics. You are to use only materials provided with the exam. If you require a calculator, one will be provided. Calculators on cell phones are not allowed. Most exams will be given in the Testing Center in the basement of the McDermott Library. Time and place of exams will be announced both in writing and in class at least one week in advance.
- 5) No supplemental exams. Exceptional cases, such as an illness or accident, will be handled on an individual basis. Proof is required and is the responsibility of the student.
- 6) Students have one week after the result of an assignment or exam is returned to request a review/correction of their grade. A review can result in the lowering of a grade.
- 7) Those suspected of cheating will be subject to the university's discipline code. See my main Web page for more information.

CLASS MATERIALS, ASSIGNMENTS:

1) Class materials will be available on eLearning or the instructor's Web site. You should check both frequently.

2) Homework should be submitted through eLearning only. If you cannot because eLearning is down, you may e-mail the assignment to the course TA.

SCHEDULE of TOPICS

This is subject to change. See the class Web site for any changes.

Week	Date	Topic	Reading
1	August 22	Syllabus review, course requirements, terminology.	
	August 24	UI Design -- Prof. Cole's take	Slides on eLearning
2	August 29	Design Rules Assignment 1: Web site evaluation	Slides on eLearning
	August 31	Design Rules	
3	September 5	Labor Day holiday -- No classes	
	September 7	C# tutorial Assignment 1 due Assignment 2: Form-fill application	Slides and code
4	September 12	Cognitive Psychology https://www.interaction-design.org/literature/book/the-encyclopedia-of-human-computer-interaction-2nd-ed/human-computer-interaction-brief-intro	Slides on eLearning

	September 14	Cognitive Psychology	
5	September 19	Computer Interfaces and history	Slides
	September 21	Evaluation of User Interfaces Assignment 2 due Assignment 3: Evaluation of a user interface	
6	September 26	Evaluation of User Interfaces	
	September 28	Dialog notation	
7	October 3	Dialog notation Assignment 3 due Assignment 4: Dialog notation	
	October 5	Exam Review	
8	October 10	Exam 1: Design, cognitive psychology, dialog notation, etc.	
	October 12	Time requirements	DWT Chapter 12
9	October 17	Android Programming Overview Assignment 4 due Assignment 5: Simple Android program	Slides
	October 19	Design for Mobile Applications	
10	October 24	Android Drawing, Sensors	
	October 26	Android Sensors	
11	October 31	Cognitive Models Assignment 5 due	Slides
	November 2	Cognitive Models	
12	November 7	Android Touchscreen	Slides
	November 9	Exam Review	
13	November 14	Exam 2	
	November 16	Term project discussion	
14	November 21	Thanksgiving Break -- No classes	
	November 23	Thanksgiving Break -- No classes	
15	November 28		
	November 30	Project Presentations	
16	December 5	Project Presentations	
	December 7	Exam Review	
17		Exam 3	

The information contained in the following link constitutes the University's policies and procedures segment of the course syllabus.

Please go to <http://go.utdallas.edu/syllabus-policies> for these policies.

The descriptions and timelines contained in this syllabus are subject to change at the discretion of the Professor.

ACADEMIC HONESTY:

The University of Texas System Policy on Academic Honesty appears in the Regents Rules and Regulations, Part One, Chapter VI, Section 3, Paragraph 3.22. *Any student who commits an act of scholastic dishonesty is subject to discipline. Scholastic dishonesty includes but is not limited to cheating, plagiarism, collusion, the submission for credit of any work or materials that are attributable in whole or in part to another person, taking an examination for another, any act designed to give unfair advantage to a student, or the attempt to commit such acts.* The **minimum** penalty for academic dishonesty is a failing grade (zero) for the project or examination. Do your own work on all projects and exams. DO NOT let anyone copy your work!