

INFSCI 1044 Human Factors in System Design -- Fall 2009

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Overview

Examines human-machine designs with special emphasis on human-computer interaction. Topics center on how to analyze, create, and improve equipment and environment to be compatible with human capabilities and expectations.

Prerequisites: INFSCI 0010/0011 (no longer offered) and an introductory psychology course, or permission of the instructor.

Note: This schedule is tentative; please check in periodically for updates.

Goals

The goal is to enable students to be knowledgeable of the concepts and topics taught, proficient in the skills and their relevance (to real world solutions), develop an appreciation for the field of Human Factors, along with an ability to critically analyze the field.

Specifics: The course aims to place equal emphasis on “what” is being learned - the concepts, and “why” they are important-their relevance. Hence, concepts will be tied in with real world examples from the latest products and research in the field of Human Factors in general, and Human Computer Interaction in particular. A team project will ensure that students will develop and refine skills that can be directly applied to solving real world problems. Students will also gain specialized insights from practitioners in the field.

Email/contact

You may contact me via email, telephone or IM. Please place "IS 1044" in the subject line of your email. I will contact you with a reply as soon as possible.

Courseweb

Courseweb will be used through the course as a means for communication. You may use your Pitt ID to log in to courseweb at <https://courseweb.pitt.edu/>

Classroom behavior

Attendance is optional but will count toward extra credit. Attendance will be taken in class throughout the course. Students are asked to attend class on time and remain through the entire class. Cell phones are to be turned off before entering and remain turned off for the duration of the class. Students with Laptops will be subject to extra questioning as technology should not serve as a distraction. Texting of any kind is not acceptable. Exams will be close book and all electronic items of any kind (cellphones/ pda's/ calculators etc.) will not be permitted to class during exams.

Readings

The following textbook is required and should be purchased at the bookstore or through your favorite on-line distributor.

An Introduction to Human Factors Engineering
Christopher D. Wickens, Sallie E. Gordon, Yili Liu, & Sallie Gordon-Becker, 2nd Edition, Prentice Hall, ISBN 0131837362 (2004)

The textbook has also been placed on course reserve.

Special circumstances

If you have a disability for which you are or may be requesting an accommodation, you are encouraged to contact both your instructor and the Office of Disability Resources and Services, 216 William Pitt Union, (412-648-7890/TTY:412-383-7355) as early as possible in the term. DRS will verify your disability and determine reasonable accommodations for this course. In addition, you should be aware that my office is up a short flight of stairs. If this problematic, I am happy to arrange a meeting in an accessible location at any time.

Course Requirements and Grading

Homework (50 points)

There will be 4 homework assignments during the term, the first three homework assignments are each worth 10 points and the final Homework assignment is an Essay worth 20 points. Homework assignments will be posted one week before the due date.

Exams (100 points)

There will be two exams during the term. The exams are closed-book, in-class exams. They will not be cumulative.

Team Project (50 points) There will be a team project worth 50 points. Students will work in teams to solve real world problems, generate project reports and present their work in class presentations.

Grading

Grading will be based on performance on the requirements specified above. Of the possible 200 points that might be earned, grades will be as follows:

- 196-200 A+
- 188-195 A
- 180-187 A-
- 174-179 B+
- 168-173 B
- 160-167 B-
- 154-159 C+
- 148-153 C
- 140-147 C-
- 134-139 D+
- 128-133 D

Week	Days	Task/Assignment/Notes
1 Intro to Human Factors Readings: Ch 1	H: Jan 7th	Tasks: 1) Get text book 2) Take notes 3) Begin process of forming Project teams
2 Design Readings: Ch 3	H: Jan-14	Project Teams Created HW1: Assigned (Ch1, 3) [design] <i>Due by 6.00pm (before class) on Thursday, January 21st, 2010.</i> <i>Use the digital drop box on courseweb https://courseweb.pitt.edu/ to submit the assignment.</i>
3 HCI, Guest Lecture Readings: Ch 15	H: Jan-21	Guest Lecture - Bob Firth-Founder- <u>Informing Design</u> HW1 Due Homework 2 Assigned (CH 3, 15)
4 HCI/Vision Readings: Ch 4	H: Jan-28	HW 2 Due

5 Vision Ch 4 Exam 1 review	H: Feb-4	Part 1 of project due
6 Exam 1	H: Feb-11	Exam1
7 Audition Readings: Ch 5	H: Feb-18	
8 Cognition Readings: Ch 6	H: Feb-25	
9 Display Readings: Ch 8	H: Mar-4	
10 Spring Recess	H:Mar-11	Spring Recess
11 Control Readings: Ch 9	H: Mar-18	Part 2 of project due HW3 Assigned
12 Work Design Readings: Ch 10	H: Mar-25	HW3 Due
13 Exam2 Review	H: Apr-1	Exam 2 Review HW 4 Assigned
14 Exam 2	H: Apr-8	Exam 2
15 Project Presentations	H: Apr-15	Part 3 of project due Project Presentations HW 4 Due
16 Project Presentations	H: Apr-22	Project Presentations

Updated: Jan 07th, 2010.