



MULT 3610
Mobile Design
Hawai'i Pacific University
Dr. Samuel Joseph, Spring 2011
MULT 3610 meets online

Instructor

Dr. Samuel Joseph
Associate Professor of Computer Science

email

sjoseph@hpu.edu

Skype

Username "tansaku".

Office hours

By arrangement

Credits, Course Type

3 credits, upper division class

Prerequisite

MULT 3475

Course Description

An introduction to interface and application design of mobile platforms such as SmartPhones, iPads and Tablets. This course will review the general interface design and prototyping process, with special focus on the restricted mobile environment. A significant portion of the course is organized around critical engagement with the latest academic and design literature in the field. The course includes a crossover mobile design project with Computer Science students taking the CSCI 4702 Mobile Programming Course.

Instructor's Comments

Everyone has their own study style, but I believe there is no substitute for staying ahead in a class. Get the readings done each week. Do all the assignments. If you get stuck on anything email the mailing list asking for help. If the workload is too heavy or circumstances prevent you from submitting work on time, **LET THE INSTRUCTOR KNOW IMMEDIATELY**. Do your best to stay ahead, and ask for help early if you run into trouble.

Class Website:

- <http://sites.google.com/site/hpumult3610mobiledesign>
- **Check the class website frequently – any changes to homework or to the syllabus, as well as clarifications on homework, and other important notices, will be posted there.**

Required Email Communication

All students must be readily reachable through campus email. If campus email is not your regularly-used email address, forward the campus email to your regular address. Ask me if you need to know how to do this. I will try to use your regular email address if I have it, but I may also use the campus email. If the class website isn't working, my primary method of contacting you will be through campus email.

Software:

Web and email access are critical for the course, and access to Skype for audio and text chat would be extremely helpful, although not a prerequisite.

All students are required to have daily access to:

- Campus Pipeline and campus email
- Class website

Backups: Make a copy of your work and anything turned in (e.g., on a thumb drive). **Never turn in your only copy of something. Save every returned submission until final grades are posted.** Otherwise if there is a problem, you may have to redo the work, or you may lose credit.

Course Time Requirements: The average student will need to spend 8-12 hours out of class time per week working on this class.

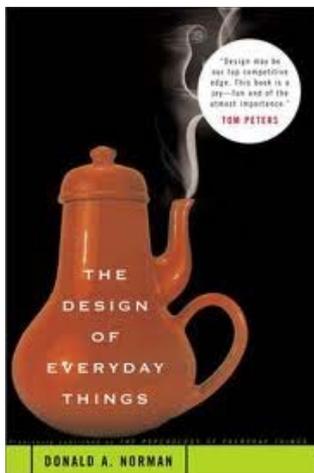
The Five Themes of the Core Curriculum (see the Academic Catalog)

Communication skills will be addressed from a theoretical point of view as well as by praxis. Global systems and world cultures will be looked at in segments on mobile design for the developing world, which reviews the impact of mobile technology on different cultures. Research and epistemology will be crucial in the writing assignments.

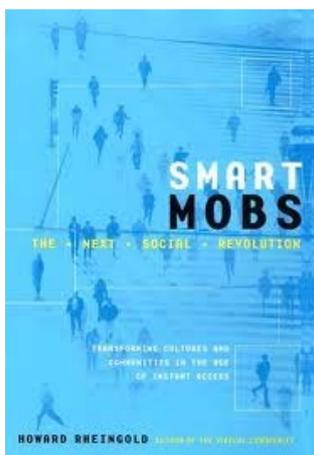
Required Course Texts

The required textbooks for the course are:

Norman D. (2002) The Design of Everyday things. MIT Press.



Rheingold H. (2003) Smart Mobs. Basic Books.



Readings

- Arhippainen L. & Tähti M. (2003) *Empirical evaluation of user experience in two adaptive prototypes*. Proceedings of the 2nd International Conference on Mobile and Ubiquitous Multimedia, Norrköping, Sweden.
- Feiner, S. *The importance of being mobile: Some social consequences of wearable augmented reality systems*. Proc. IEEE and ACM Int. Workshop on Augmented Reality 1999 (IWAR 99), 145-148.
- Mann, S. *An historical account of the 'WearComp' and 'WearCam' inventions developed for applications in 'personal imaging.'* IEEE Int. Symp. on Wearable Computers 1997 (ISWC 97), 66-73.
- Nielsen: *ten heuristics for evaluation*: http://www.useit.com/papers/heuristic/heuristic_list.html
- Rashid O., Mullins I., Coulton P. & Edwards R. (2006) *Computers in Entertainment* 4(1)
- Svanæs D., Seland G. (2004) *Putting the Users Center Stage: Role Playing and Low-fi Prototyping Enable End Users to Design Mobile Systems*. CHI 6(1) 479-486.

Homework

Always check the syllabus and the class website for guidance on the homework and class.

Readings will be assigned for each week. All literature should be read and summaries posted by all students to the class forum. The instructor will merge all the summaries to create a synthesis of input from all students and the summary will be posted back to the class forum, and reviewed in synchronous online sessions. Students will be required to become familiar with various online software including; Skype, Google Groups and Google Docs.

Students are expected to become involved in setting the topics for later weeks in the course, as well as researching which readings would be appropriate for them. Final papers will be submitted in the format for either MobileHCI or Ubiquitous Computing conferences, or other relevant conference/journal format of the students choosing. Students may elect to work in teams, with the permission of the instructor, but documentation of precisely what each team-member contributed will be required, and the output of a team of two is expected to be double the quality of an individual.

Late Homework

When assigned, assignments must be done prior to the specified deadline. One grade level will be dropped for each day an assignment is late. Moreover, late assignments may not be graded until later in the semester.

Extra Credit. Except in extraordinary and unusual circumstances, I do not accept extra credit submissions of work. Rather than wait until the end of the semester to ask how you can raise your grade, work hard and stay ahead from the beginning of class. Additionally, if you make a strong effort in this class that is visible to me (e.g., by coming to me for help), I may increase your grade. See further notes below about moving grades to the next higher grade.

Learning Outcomes

I. Outcomes Specific to Mobile Design

- Create and document mobile design prototypes.
- The ability to run and assess the results of mobile user evaluation studies
- Develop an awareness of the range of work being conducted in the mobile HCI field

II. Outcomes Related to Design in General

- Demonstrate critical knowledge of effective graphic design, layout, and production
- Understand the design process, from idea, to prototype, to evaluation to end product
- Be able to collaborate effectively with team members from different discipline

- Demonstrate ability to organize design documentation and manage communication effectively to support transitioning a design project to another team.

This syllabus is subject to change. Any changes will be specified on the class website.

Grading Scheme:

Grading of the final project and each assignment will be on a 100-point scale:

Points	Grade	Points	Grade
93 - 100	A	73 - 76	C
90 - 92	A-	70 - 72	C-
87 - 89	B+	67 - 69	D+
83 - 86	B	60 - 66	D
80 - 82	B-	Below 60	F
77 - 79	C+		

Weight:

	<u>Notes:</u>
Project	40% A good proportion of your grade will come from your final project – you may work in teams of 2. The project will involve developing a mobile application interface of your choice, and if you are collaborating with CSCI 4702 students, working with them to have the application implemented. 10% will come from the first project submission (outline design plan and prototype) and 30% from the final project submission and presentation.
Assignments	40% There are 8 assignments and each will be worth 5 percentage points.
Participation	20% Posting appropriately to the mailing list and/or attending online skype/ustream. A grade of up to approximately 1.4% will be awarded each week depending on the level of contribution. Each week students will need to post a non-trivial question/comment on the readings to the class mailing list or during the online lecture. Examples of trivial questions/comments include things like “I noticed a spelling mistake in this reading”. Examples of non-trivial questions/comments would be things like “This reading seems to relate to this other paper I have read (providing citation), which seems to contradict/support the ideas of this paper. In my opinion, the use of approach A in Context B is likely to be more effective”
Total	<u>100%</u>

Students who demonstrate to me that they are making a good effort, and whose grade is on the border with the next higher grade, may in some cases have their grade moved up to a higher grade. A good effort includes good participation, handing in assignments on time reading prior to class, and asking questions in class that reflect that you have done the reading, visiting me to get help as early as possible after you need help, working at least 8-12 hours every week outside of class on this course, and so forth.

Schedule**SEE CLASS WEBSITE FOR DETAILS AND UPDATES TO HOMEWORK ASSIGNMENTS [dates based on Fall 2010]**

Week	Date	Main Topics	Assignment
1	6-10 Sep	Introduction to Online Class <ul style="list-style-type: none">■ Skype■ Google Groups■ Google Docs	Assignment 1: Skype Meetup
2	13-17 Sep	Design Process <ul style="list-style-type: none">■ Prototyping■ Steps in the design process■ Evaluation Heuristics■ Design of Everyday things	Assignment 2: Norman/Nielsen
3	20-24 Sep	Mobile Design <ul style="list-style-type: none">■ Constraints of the mobile device■ Evaluation■ Observation■ Focus Groups■ Interviews	Assignment 3: Arhippainen/Svanes
4	27 Sep-1 Oct	Wearable Design <ul style="list-style-type: none">■ More intimate than mobile■ WearComp■ WearCam■ Weaable Augmented Reality	Assignment 4: Feiner/Mann
5	4-7 Oct	MultiSensory Design <ul style="list-style-type: none">■ Tactile/Haptic Interfaces■ Olfactory Interfaces■ Gustatory Interfaces	Assignment 5: MultiSensory
6	11-15 Oct	Location Based Services <ul style="list-style-type: none">■ Location Context■ Privacy Issues■ CheckIn vs. AlwaysOn	Assignment 6: Rashid et al
7	18-22 Oct	Mobile Social <ul style="list-style-type: none">■ Flash Mobs■ Emergence■ Sociability	Assignment 7: RheinGold
	25-29 Oct	Augmented Reality <ul style="list-style-type: none">■ Virtual Reality■ Gaze Detection■ Location Based	Assignment 8: Project I
8	1-5 Nov	Design for the Developing World <ul style="list-style-type: none">■ Resource constraints■ Connectivity■ Accessibility	Assignment 9: Developing World
9	8-12 Nov	Student Selected Readings	
10	15-19 Nov	Student Selected Readings	Assignment 10: Project II
11	22-26		

	Nov	Student Selected Readings	
12	29 Nov – 3 Dec	Student Selected Readings	
13	6-10 Dec	Work on project.	
14	13-17 Dec	Present projects!	

TRY TO STAY AHEAD IN THE COURSE