

# Human Factors in System Design Psychology 734 Fall 2007

Instructor:	Chris Monk	<b>Office Hours:</b>	Monday 3:15-4:15pm
Phone:	(703) 993-3408		By appointment
Email:	cmonk@gmu.edu	<b>Class Time:</b>	Monday 4:30-7:10pm
Office:	2059 David King	<b>Class Location:</b>	David King 2073

## **Course Objectives**

The goal of this seminar is to introduce students to the role and contributions of human factors to the design process. More than simply user interface or interaction design, the design of multi-component systems of which the user is one component will also be covered. The assignments are intended to give students experience in "thinking" like a human factors professional. Accordingly, some of the challenges of being a human factors specialist will also be incorporated. Though not a methods course, students will gain plenty of hands-on experience that they will hopefully find valuable once in professional environments. Issues related to professional human factors career will also be covered.

#### Textbooks (required)

- Lidwell, W., Holden, K., and Butler, J. (2003). Universal Principles of Design: 100 Ways to Enhance Usability, Influence Perception, Increase Appeal, Make Better Design Decisions, and Teach Through Design. Gloucester, MA: Rockport Publishers, Inc. [TBD if required]
- Norman, D. (2002). *The Design of Everyday Things*. New York, NY: Basic Books. [originally published as *The Psychology of Everyday Things* in 1988]
- Norman, D. (2003). Emotional Design: Why We Love (or Hate) Everyday Things. New York, NY: Basic Books. [Available as a free eBook through Fenwick Library: <u>http://magik.gmu.edu/cgibin/Pwebrecon.cgi?BBID=1309528</u>]
- Stone, D., Jarrett, C., Woodroffe, M., and Minocha, S. (2005). *User Interface Design and Evaluation*. San Francisco, CA: Morgan Kauffmann Elsevier.

### **Course Requirements and Grading**

*Weekly Assignments*: There will be regular assignments to investigate system design and evaluation issues in the daily lives of students. Each student will make an informal presentation in class, and the entire class will discuss notable examples. Students will work individually and in groups, depending on the assignment. These assignments will contribute 40% towards the student's course grade.

*Individual Project*: Each student will complete an individual design project, which will contribute 40% towards the student's course grade. This project will include both a written report and oral presentation to the class. Details regarding the project will be provided in class.

*Participation*: Class participation is essential, as we will be discussing a variety of system design and evaluation processes, approaches, and components. Each student or teams of students will be expected to contribute to the discussions, as well as provide examples of successful and unsuccessful systems along with an explanation. Participation will contribute 20% towards the student's course grade.

## **Honor Code**

George Mason University has an Honor Code that each student accepts as a condition of enrollment. This code is consistent with APA's ethical principles for working professionals, and it is important that each student adhere to the Honor Code. For this course, group collaboration (such as the group project) is expected, but each student will produce his or her own papers and homework assignments. If you have any questions about what is permitted and what is not, please see your instructor.

#### Attendance

This seminar will largely be discussion-based, and therefore attendance is essential. Lack of attendance will affect a student's Class Participation grade (and likely the homework assignments as well).

## **Special Accommodations**

If you are a student with a disability and you need academic accommodations, please see me and contact the Disability Resource Center (DRC) at 703-993-2474. All academic accommodations must be arranged through that office.

## **Course Outline**

Any schedule changes or changes in assignments will be announced in class in advance. After an absence, students are responsible for contacting the instructor to obtain accurate information.

A range of topics related to Human Factors in system design and evaluation will be covered, including the systems approach, fundamental design principles, evaluation methods, usability, professional issues, design vs. research, errors, and safety. A more detailed schedule will be available in class.

#### **Important Dates**

First Day of Class	Aug. 27	
Labor Day	Sept. 3 ** No Class **	
Last Day to Add	Sept. 11	
Last Day to Drop	Sept. 28	
Elective Withdrawal Period	Sept. 29 – Oct. 26	
Columbus Day	Oct. 8 – Class on Tuesday Oct. 9 instead of Monday.	
Thanksgiving Break	Nov. 21-25	
Last class	Dec. 3	