

**Course Description: Human-Computer Interaction** (SYST 469-002; Spring 2016)

**Instructor:** Professor Leonard Adelman

Office: Engineering Bldg, Room #2223; Phone # 703-993-1624

Office Hours: Thursdays, 3:30 - 4:10 (or by appointment)

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**Teaching Assistant:** Not determined by department yet

Office: Engineering Bldg, Room #2216; email: ?

Office Hours: Thursdays, 2:00 – 4:00

**Text:** Y. Rogers, H. Sharp, & J. Preece. *Interaction Design: Beyond Human-Computer Interaction* (4<sup>th</sup> edition.). Wiley & Sons, 2011. [Electronic version available as a rental at <http://www.coursesmart.com/9781119066019>.]

**Prerequisites:** IT 206 and STAT 250

**This course will cover the principals of human-computer interaction:** including information processing design, cognitive models, ergonomics, and design metaphors. Students will learn to evaluate designs in terms of effectiveness, efficiency, and user experience. (*Systems engineering majors can not take this course for credit toward their major. They need to take SYST 470.*)

**Student Evaluation Criteria**

Three (3) Exams	75% (25% each)
Class Project	25%

I use the full grading scale, including pluses and minuses. In general, that means the following grading range: A ( $\geq 90$ ), B (80 to 89), C (70 to 79), D (60 to 69), and F ( $< 60$ ). The exams will cover material presented in the text and class. The exams are closed-book and closed-notes. The exam questions probably will be short-answer in format. There will be a review period the class before the exams. Laptops can not be used to take the exams. [Note: I will not email exam grades or post them on Blackboard. I'd like you in class to hear the answers to the exam questions. You have only one week after I return the exams to ask me to review any answers.]

Students will work in pairs (of their choosing) to complete their project. The project needs to be an experiment evaluating two or more interactive products. Projects need to be guided by user requirements and usability and user experience goals, employ experimental design principles, and use statistical analyses to determine if there are significant product differences. (Failure to use statistical analysis will result in a loss of at least two letter grades on the project.) Each team will make a 10-minute presentation describing their project. You should discuss your project with me to make sure it is acceptable. Students who present on April 21st receive 2 additional points. So, a high A presentation could be worth 27 instead of 25 points, which could easily be the difference between a B+ or A- in the course. I will give date priority to students who need additional points. I will take class attendance around the mid-point of every class, including exam days. Good attendance will be worth extra-credit points. You can miss 1 class, with prior notice.

## **Human-Computer Interaction (SYST 469-002; Spring 2016)**

- Week 1 (1/21) What is Interaction Design? (Ch. 1)
- Week 2 (1/28) Understanding and Conceptualizing Interaction (Ch. 2)
- Week 3 (2/4) Cognitive Aspects (Ch. 3)
- Week 4 (2/11) The Process of Interaction Design (Ch. 9) and Review for Exam #1
- Week 5 (2/18) **Exam # 1 at 4:30** (to 5:50) and begin Establishing Requirements (Ch. 10)  
[Note: Ch. 10 will include material from Ch. 7 on data gathering methods]
- Week 6 (2/25) Go Over Exam #1 and Establishing Requirements (Ch. 10) continued
- Week 7 (3/3) Introducing Evaluation (Ch. 13)
- Week 8 (3/10) No Class – Spring Break
- Week 9 (3/17) Questionnaires (Ch. 7); Project Overview; & Exam 2 Review
- Week 10 (3/24) **Exam #2 at 4:30** (to 5:50) and begin Evaluation Studies (Ch. 14)
- Week 11 (3/31) Go Over Exam #2 and Evaluation Studies (Ch. 14) continued
- Week 12 (4/7) Inspections and Analytical Evaluations (Ch. 15 to page 518)
- Week 13 (4/14) Design, Prototyping, and Construction (Ch. 11)
- Week 14 (4/21) Student Presentations
- Week 15 (4/28) Student Presentations and Review for Final Exam
- Week 16 (5/5, from 4:30 to 6:20) **Final Exam**

### **Additional Information**

- GMU is an Honor Code university
- Emails will be sent to your GMU email address
- Office of Disability Services: 703-993-2472 (<http://ods.gmu.edu>)
- Counseling & Psychological Services: 703-993-2380 (<http://caps.gmu.edu>)
- Writing Center: A114 Robinson Hall, 993-1200 (<http://writingcenter.gmu.edu>)
- University Libraries: <http://library.gmu.edu/mudge/IM/IMRef.html>