

**Course Description: Human-Computer Interaction** (SYST 469-002; Spring 2015)

**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:** Mr. Dheeraj Kankanala

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Office Hours: Thursdays, 2:00 – 4:00

**Text:** Y. Rogers, H. Sharp, & J. Preece. *Interaction Design: Beyond Human-Computer Interaction* (3<sup>rd</sup> edition.). Wiley & Sons, 2011. [Electronic version available through Mason library system at <http://magik.gmu.edu/cgi-bin/Pwebrecon.cgi?BBID=2941995>. Cannot download to e-readers.]

**Prerequisites:** IT 108 or 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.

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 goals, employ experimental design principles, and use statistical analyses to determine if there are significant differences in product usability. (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 23<sup>rd</sup> 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 are permitted to miss 1 class, with prior notice.

## SYLLABUS: Human-Computer Interaction (SYST 469-002, Spring 2015)

- Week 1 (1/22) What is Interaction Design? (Ch. 1)
- Week 2 (1/29) Understanding and Conceptualizing Interaction (Ch. 2)
- Week 3 (2/5) Cognitive Aspects (Ch. 3)
- Week 4 (2/12) The Process of Interaction Design (Ch. 9) & Review for Exam #1
- Week 5 (2/19) **Exam # 1 at 4:30** (to 5:50) and Establishing Requirements (Ch. 10)
- Week 6 (2/26) Go Over Exam #1 and complete Establishing Requirements (Ch. 10)
- Week 7 (3/5) Introducing Evaluation (Ch. 12)
- Week 8 (3/12) Spring Break
- Week 9 (3/19) Analytical Evaluation (Ch. 15 to pg. 514); Project Overview; Exam 2 Review
- Week 10 (3/26) **Exam #2 at 4:30** (to 5:50); Analytical Evals. (Ch. 15, pp. 514 – 521); and Questionnaires (Ch. 7)
- Week 11 (4/2) Go Over Exam #2 and Evaluation Framework (Ch. 13)
- Week 12 (4/9) Evaluation Studies (Ch. 14)
- Week 13 (4/16) Design, Prototyping, and Construction (Ch. 11)
- Week 14 (4/23) Student Presentations
- Week 15 (4/30) Student Presentations and Review for Final Exam
- Week 16 (5/7, from 4:30 to 6:30) **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>