Course Description: Human-Computer Interaction (SYST 469-001)
Robinson Hall A111
Wednesday, 7:20 PM – 10:00 PM

Instructor: Jack Laveson, Ph.D., CPE, CHFP
Phone 703-577-7398 (cell)
Office Hours: By Appointment
E-Mail Address: jlaveson@gmu.edu

TA: William Leonard
wleonar3@gmu.edu

Text: J. Preece, Y. Rogers, & H. Sharp. *Interaction Design: Beyond Human-Computer Interaction* (3rd edition). Wiley & Sons, 2011.

Prerequisites: IT 108 (or IT 206) and IT/STAT 250

This course will cover the principles of human-computer interaction: including information processing design, cognitive models, ergonomics, and design metaphors. Students will learn to evaluate interface design in terms of usability (effectiveness, efficiency, and satisfaction). At the end of the course, students will understand the basic concepts and principles of human-computer interaction, be able to recognize good and bad interaction designs, and be able to perform a high-level evaluation of interactive products. *(Systems engineering majors cannot take this course for credit toward their major. They need to take SYST 470.)*

Student Evaluation Criteria for Course Grade (Grading Rubric): Individual grades are posted on Blackboard, and your final grade is based on the following weighting:

Mid-term Exam	30%
Class Project	30%
Final Exam	30% (only on material after the mid-term)
Lecture Homework	5% (based on reading assignments; graded by being submitted on time)
Statistics Homework	5% (based on IT/STAT 250 statistical tests; graded by number of correct answers, and submitted on time)

I use the grading scale: A+ = 98-100; A = 90-97; B+ = 87-89; B = 83-86; B- = 80-82; C+ = 77-79; C = 73-76; C- = 70-72; D = 60-69; F = below 60; I do not use A-.

Exams: The exams will cover material presented in the text and class. The exams are closed book and closed notes. The exam questions will short-answer and fill in the blank in format. Laptops and other electronic devices cannot be used to take the exams.

Class Project: Students will work in groups (of their choosing) to complete a class project. The project is an evaluation of two existing interactive products based on data obtained

from participants (also known as subjects, or users) during a field study that your group will conduct. (A field study is performed in an environment where the product is used.) The project will guided by usability goals, and uses knowledge learned from class to determine if there are differences in the usability of the products. Projects will be presented orally (time permitting) during the last two weeks of class. You must discuss your project topic and methodology with me to make sure that it is acceptable. Projects are graded on the process you used to arrive at a finding/conclusion. All students in a group are expected to equally contribute to the project; if identified, non-participants will receive a lower grade.

Homework: Students are expected to submit all homework assignments on time.

Attendance & Class Participation: I will take class attendance around the mid-point to end of every class, including exam days. Good attendance (90% or better by attending class, or by excused absence for reasons such as illness, family emergency, work conflict, and GMU athletic team event) will earn an extra-credit of 3 points added to your final numeric grade. Extra-credit may raise your course grade one level on the grading scale (for example, a C will be changed to a C+, and a C+ will be changed to a B-, but a D or F may or may not be changed). Submit excused absence requests to jlaveson@gmu.edu.

Honor Code: GMU is an Honor Code university; please see the University Catalog for a full description of the code and the honor committee process. The principle of academic integrity is taken very seriously and violations are treated gravely. What does academic integrity mean in this course? Essentially this: when you are responsible for a task, you will perform that task. When you rely on someone else's work in an aspect of the performance of that task, you will give full credit in the proper, accepted form. Another aspect of academic integrity is the free play of ideas. Vigorous discussion and debate are encouraged in this course, with the firm expectation that all aspects of the class will be conducted with civility and respect for differing ideas, perspectives, and traditions. When in doubt (of any kind) please ask for guidance and clarification.

Disabilities: If you are a student with a disability and you need academic accommodations, please contact the Office of Disability Services (ODS) at 993-2474. All academic accommodations must be arranged through the ODS. http://ods.gmu.edu

Communicating with students: I use your GMU e-mail account to communicate with you. Thus, be sure to check your e-mail on a regular basis.

Course Materials: Lectures, readings, and related materials such as this syllabus will be posted on Blackboard. Blackboard also will be used for homework submissions, and the posting of grades except for your final grade. Your final grade will be posted on Patriot Web within 48 hours after your completion of the final exam.

Other Useful Campus Resources:
- Writing Center: A114 Robinson Hall; (703) 993-1200; http://writingcenter.gmu.edu/
- University Libraries: "Ask a Librarian", http://library.gmu.edu/mudge/IM/IMRef.html
- Counseling And Psychological Services (CAPS): (703) 993-2380; http://caps.gmu.edu/

- University Policies: The University Catalog, http://catalog.gmu.edu/, is the central resource for university policies affecting student, faculty, and staff conduct in university affairs.

Schedule:

Week 1   (*1/23*)   What is Interaction Design? (Ch. 1)

Week 2   (*1/30*)   Understanding and Conceptualizing Interaction (Ch. 2)

Week 3   (*2/6*)   Cognitive Aspects (Ch. 3)

Week 4   (*2/13*)   Establishing Requirements (Ch. 10)

Week 5   (*2/20*)   Design, Prototyping and Construction (Ch. 11)

Week 6   (*2/27*)   Introducing Evaluation (Ch. 12) & Evaluation Studies: From Controlled to Natural Settings (Ch. 14)

Week 7   (*3/6*)   Mid-term Exam (covering chapters 1, 2, 3, 10, 11, 12, & 14)

               (*3/13*)   Spring Break (No Class)

Week 8   (*3/20*)   Designing a Usability Study (instructor provided resources)

Week 9   (*3/27*)   An Evaluation Framework (Ch. 13)

Week 10   (*4/3*)   Data Gathering (Ch. 7)

Week 11   (*4/10*)   Evaluation: Inspections, Analytics, and Models (Ch. 15)

Week 12   (*4/17*)   The Process of Interaction Design (Ch. 9)

Week 13   (*4/24*)   Student presentations

Week 14   (*5/1*)   Student presentations

Week 15   (*5/8*)   Final Exam (covering only material after the mid-term – usability study procedures, and chapters 13, 7, 15, & 9)

Please read the following GMU Honor Code and sign at that the end that you have read it; then return the signed copy to the instructor. It is expected that you abide completely with the provisions of the Honor Code provided herein. <u>Signing also acknowledges that you have received a copy of the syllabus.</u>

Honor Code

To promote a stronger sense of mutual responsibility, respect, trust, and fairness among all members of George Mason University, and with the desire for greater academic and personal achievement, we, the members of George Mason University, have set forth the following code of honor.

I. The Honor Committee

The Honor Committee is a group of students elected from the student body whose primary and indispensable duty is to instill the concept and spirit of the Honor Code within the student body. The secondary function of this group is to sit as a hearing committee on all alleged violations of the code.

II. Extent of the Honor Code

The Honor Code of George Mason University deals specifically with cheating and attempted cheating, plagiarism, lying, and stealing.

A. Cheating encompasses the following:

1. The willful giving or receiving of an unauthorized, unfair, dishonest, or unscrupulous advantage in academic work over other students

2. The above may be accomplished by any means whatsoever, including but not limited to the following: fraud; duress; deception; theft; trick; talking; signs; gestures; copying from another student; and the unauthorized use of study aids, memoranda, books, data, or other information

3. Attempted cheating

B. Plagiarism encompasses the following:

1. Presenting as one's own the words, the work, or the opinions of someone else without proper acknowledgment

2. Borrowing the sequence of ideas, the arrangement of material, or the pattern of thought of someone else without proper acknowledgment

C. Lying encompasses the following:

The willful and knowledgeable telling of an untruth, as well as any form of deceit, attempted deceit, or fraud in an oral or written statement relating to academic work. This includes but is not limited to the following:

1. Lying to administration and faculty members

2. Falsifying any university document by mutilation, addition, or deletion

3. Lying to Honor Committee members and counsels during investigation and hearing. This may constitute a second charge, with the committee members who acted as judges during that specific hearing acting as accusers

D. Stealing encompasses the following:

Taking or appropriating without the permission to do so, and with the intent to keep or to make use of wrongfully, property belonging to any member of the George Mason University community or any property located on the university campus. This includes misuse of university computer resources (see the Responsible Use of Computing Policy section in the "General Policies" chapter). This section is relevant only to academic work and related materials.

Students must report all alleged violations to the Honor Committee. Any student who has knowledge of, but does not report, a violation may be accused of lying under the Honor Code.

I have read the above GMU Honor Code and agree to abide by its provisions:

Signature: _____   **Date:** _____

Print Name: _____