COURSE NUMBER: ISTM 6215/4215

COURSE TITLE: Human-Computer Interaction

COURSE DESCRIPTION: Why do you want to know about Human-Computer Interaction?

What is usability? How do you define ‘user-friendly’ usability and design? Is there a design that is accepted and used, by everyone regardless of culture, age or disabilities? Should humans be forced to adapt to a machine or should a machine adapt to the human? Do you blame yourself when something (in technology or the real-world) does not meet your usability expectations? Who should take the responsibility for unusability (uselessness)? Since machines were first developed, usability issues caused concerns about safety, productivity, satisfaction and enjoyment. However, humans must still adapt to the machine. Should usability be built in during design, not as an after-thought? How does usability become part of the building and creating of the technology or real-world artifact? You want to start thinking beyond the computer interface, to explore usability for many different types of users, for many different types of tasks and many different levels of expertise. How can you make lives better through technology? Can you define new and effective ways for humans to interact with electronic devices and improve their digital experience?

PREREQUISITES: Disclaimer

This course is not a web-design course. This is not a typical technology course: technology takes a back seat to people. Whatever your background, this course is for you! My major goal is for you to create an appreciation for usability and communication issues with computers and other machines that impact our lives. Never settle for unusability again!

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LEARNING OBJECTIVES: What will you learn?

There are three goals that you will reach in this class. You will
1. Develop an understanding of the importance of usability  
   a. Learn the history and background of the field  
   b. Learn about users and their differences  
   c. Learn models of usability  
2. Integrate a process to create a usable prototype  
   a. Apply Task-centered Design building your prototype  
   b. Apply models to build and assess your prototype  
   c. Communicate and collaborate with users  
      i. Obtain and incorporate feedback from users  
3. Identify and critique usability  
   a. Apply models of usability  
   b. Evaluate usability  
      i. In current designs  
      ii. In future designs  
   c. Be aware of and appreciate differences in users

READINGS & MATERIALS:

GRADING:

- Short Papers - 6 papers (30% - 5% each)  
- Discussion (15%)  
- Project (40%)  
- Final Paper (15%)

Short Papers: 6 papers – 5% each

There is no textbook for this class, however, there are many articles identified that you will need to read in order to become familiar the importance of usability. Based on these articles and class discussion, you will write a brief, one page critique. You must NOT summarize the article; instead incorporate your thoughts, suggestions and any additional research that you may find interesting. Read the description of the assignment carefully: the focus of each short paper is different. All the questions and topics are detailed under Assignments.

Discussion: 15%

There are several different types of discussions. Please read the requirements very carefully. All posts are expected to be well-written (see assignment criteria). Just saying ‘I agree’ is not enough – why do you agree? Some of the deliverables listed under Discussions are part of the team project and should be posted as team. All others are individual work. At times you will need to review the other student’s postings. My main objective in assessing your participation is to encourage you to engage with your classmates and with me over the course material and new material.

Project: 40%
In order for you to understand a process for developing a usable prototype, you will develop one. There are 3 major deliverables for the project. Initially, you will present your preliminary ideas in class. Once you refine your topic you will prepare a report of the selected topic with background information about the needs, and interviews with either current or potential users. You are responsible for finding these users and interviewing them. Your second deliverable is composed of two parts: presentation and evaluation of a paper prototype, and report of the feedback and modifications that resulted from that evaluation. Your third deliverable is the presentation of your prototype and final report of the interface. Your incorporation of task analysis and some ideas from usability models will enable you to create a usable prototype.

**Final Paper: 15%**

As you review on of your peer’s project, you will be able to practice and demonstrate your assessment skills. You just bought the product for one of the developed prototypes. Your final deliverable enables you to integrate all the course material into an evaluation of another team’s usability prototype. You will be able to explore the prototype of your choice and go in-depth in your paper. This is a chance for you to have some fun as a ‘user’ and appreciate some of the issues that arise with usability development.

**ASSIGNMENTS:** Assignments will be returned within a week.

**ACADEMIC INTEGRITY:** The code of academic integrity applies to all courses in the George Washington School of Business. Please become familiar with the code. All students are expected to maintain the highest level of academic integrity throughout the course of the semester. Please note that acts of academic dishonesty during the course will be prosecuted and harsh penalties may be sought for such acts. Students are responsible for knowing what acts constitute academic dishonesty. The code may be found at: http://www.gwu.edu/~ntegrity/code.html

**UNIVERSITY POLICIES:**

**Religious Accommodation**

Students should notify faculty during the first week of the semester of their intention to be absent from class on their day(s) of religious observance. Faculty should extend to these students the courtesy of absence without penalty on such occasions, including permission to make up examinations. Faculty who intend to observe a religious holiday should arrange at the beginning of the semester to reschedule missed classes or to make other provisions for their course-related activities.

**Disability Support Services (DSS)**

Any student who may need an accommodation based on the potential impact of a disability should contact the Disability Support Services office at 202-994-
8250 in the Rome Hall, Suite 102, to establish eligibility and to coordinate reasonable accommodations. For additional information please refer to: wired.gwu.edu/dss/

Mental Health Services 202-994-5300

The University's Mental Health Services offers 24/7 assistance and referral to address students' personal, social, career, and study skills problems. Services for students include: crisis and emergency mental health consultations confidential assessment, counseling services (individual and small group), and referrals. counselingcenter.gwu.edu/