CSCI443 User Interface Design  
Spring 2020

Class meets:  W  5:00 – 8:00 p.m. in SS362

Professor:  Dr. Melissa Holmes  
email:  melissa.holmes@umontana.edu
office:  Social Sciences 411  
text messages:  406.565.6079
office hours:  Monday 12:00 – 2:00 p.m.  
Thursday 1:00 – 4:00 p.m.  
Friday 12:00 – 2:00 p.m.  
and by appointment (or see if my door is open)

Course Description:  This course provides an introduction to designing and evaluating user interfaces for a variety of interactive systems, emphasizing the development of interfaces from the user (as opposed to a system-oriented) perspective. The course focuses on using real users to complete the specification, design, evaluation, and testing of a software interface. The course also presents human-computer interaction concepts and theory, which involves computer science, psychology, social behavior, and other human factors associated with computer use. Students will work in teams and participate in thoughtful group critique sessions, experiment design, and usability experiments. This course has significant research, writing, and presentation components.

Grading:  
Projects  80%
Written Take-Home Exams (2)  20%

Optional Textbooks:  
ISBN: 978-0-470-66576-3 (optional)


Accommodations:  
Students who need any type of accommodation should work with Terri Haun, SAS Academic Specialist and provide documentation as soon as possible.

Academic Dishonesty:  
In this class, you are encouraged to work in teams and use many resources including books and the Internet. However, each student must turn in his/her own work, and each student is responsible for understanding anything that is turned in. Plagiarism and cheating are serious offenses and will not be tolerated. Refer to the Student Conduct Code for more information.
Student Learning Outcomes

Upon the successful completion of this class, a student will be able to:

1. articulate the economic, social and environmental impact of poor user interfaces along and contemporary issues in usability;
2. evaluate the usability of a user interface and discuss it in terms of design elements, heuristics and human behaviors;
3. demonstrate an iterative, user-centered design process that involves users in all phases of interface development;
4. demonstrate the development and implementation of an evaluation plan and use the results to improve a user interface;
5. describe how usability research is conducted;
6. design and conduct a usability study;
7. demonstrate professionalism, teamwork and a variety of communication skills.

Course Schedule

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<tr>
<th>Week</th>
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| 1 Jan 13-17 | Syllabus, Introduction, Evaluation methods discussion (ID Chapter 15)  
Heuristic Evaluation of a website – work in pairs |
| 2 Jan 20-24 | Cognition, Social Interaction, Emotional Interaction (ID Chapter 4)  
Role-Playing, Discussion |
| 3 Jan 27-31 | Data Gathering, Analysis, Interpretation and Presentation  
IRB Requirements for conducting research with human participants |
| 4 Feb 3-7 | Design, Prototyping and Construction  
Low-Fidelity Prototypes |
| 5 Feb 10-14 | Prototyping, Project #1  
Assignment: Research prototyping tools |
| 6 Feb 17-21 | Interface Design and Evaluation Tools Demos/Results |
| 7 Feb 24-28 | Midterm Exam, other activities TBA |
| 8 Mar 2-6 | Interface Design Project  
Test Plan |
| 9 Mar 9-13 | Research Ethics Requirements  
User Testing Plan and Materials |
| 10 Mar 16-20 | Spring Break – no classes |
| 11 Mar 19 - 23 | Work on prototype and testing materials |
| 12 Mar 23-27 | User Testing – Round 1 |
| 13 Mar 30-Apr 3 | Analysis of Results, next-level design and prototype changes |
| 14 Apr 6-10 | User Testing – Round 2 |
| 15 Apr 13-17 | Analysis of Results and User testing report |
| 16 Apr 20-24 | Other evaluation methods  
User Testing Report Due |
| Apr 27-May 1 | Final Examinations – no regular classes |
| May 4-8 | Final Exams – Final Project Demos |