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IST 5885– Introduction to Human Computer Interaction
Course Syllabus – Fall 2015

Department Mission
“Capitalizing on the strong technological emphasis of Missouri University of Science & Technology (S&T), the Department of Business and Information Technology prepares individuals for careers in modern business organizations. The Department emphasizes management through technology with particular focus on information systems and their application in a fast-changing, global and competitive environment. Through innovative instruction and research, the Department serves the economic interests of industry and the evolving needs of society.”

Instructor Information

Instructor:  Professor Carla Bates  Class:  MWF: 2 p.m. – 2:50 p.m.
Office:  105 Fulton Hall  Classroom:  213 BCH
Phone:  573-341-7719  Office Hours:  M: Noon. – 2:00 p.m. (251 Toomey)
E-Mail:  carla@mst.edu  Tues: 10:00 a.m. -11:30 a.m. (on-line)
           F: 10 a.m. – noon (105 Fulton)
           And by appointment

Course Information

Catalog Description:
Introduction to the field of Human-Computer Interaction (HCI). Students examine issues and challenges related to the interaction between people and technology. The class explores the social and cognitive characteristics of people who use information systems. Students learn techniques for understanding user needs, interface prototyping, and interface evaluation.

Extended Description:
Technology has become an important part of our daily lives. Each day, we interact with different types of technologies one way or another. As future designers, developers, and system analysts, you are expected to understand fundamental concepts and principles of Human-Computer Interaction in order to develop a system that is useful and easy to use.

This course is designed to familiarize the students with various concepts and techniques for understanding user needs, interface design and prototyping, and interface evaluation. Major topics to be covered in this course include: human aspects of HCI, interface aspects of HCI, interaction aspects of HCI, data gathering and analysis tools for understanding user requirements, design/prototyping, and various evaluation techniques.

Required Materials:
- Interaction Design: Beyond Human-Computer Interaction, 4th Edition
  Jenny Preece, Helen Sharp, Yvonne Rogers
  ISBN: 1119020751 (1-119-02075-1)
  CourseSmart Link
- Additional readings will be made available on Blackboard
Instructional Methods:
This course involves lectures, class discussion, group project, exam, presentations, and various in-class activities.

Course Learning Objectives

<table>
<thead>
<tr>
<th>Course Objectives</th>
<th>Program Learning Objectives</th>
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</thead>
<tbody>
<tr>
<td>Be able to identify and evaluate good and bad interfaces</td>
<td>X  X  X _</td>
</tr>
<tr>
<td>Understand multi-disciplinary nature of HCI</td>
<td>X  X _ _</td>
</tr>
<tr>
<td>Understand fundamental theories and models associated with HCI</td>
<td>X  X _ _ _ _</td>
</tr>
<tr>
<td>Be able to follow user-centered approach in HCI projects</td>
<td>X  X X X X X X _ _ _ _ _</td>
</tr>
<tr>
<td>Be able to research on recent developments in HCI, synthesize and present the ideas</td>
<td>X  X X _ X _ _ _ _ _ _</td>
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</tbody>
</table>

Course Assignments

Online discussions (Individual Activity):
HCI is an area that everyone has experience with, or can relate to. Therefore, I encourage each student to exchange with your fellow students your viewpoints, experiences, findings or discoveries through the online medium. Blackboard discussion forum will be used for such practice. I will create a few discussion topics and require you to participate in the discussion.

You will be graded based on not only the quantity of your participation, but also the quality of your participation.

HCI article presentation (Individual Activity):
HCI is a relatively new and exciting discipline. Every day, there are new developments which may change the way we think in terms of HCI, and new discoveries and research findings which improve our understanding on how humans interact with various interfaces. Therefore, students are encouraged to explore HCI topics that are of interest to you, find relevant article(s), synthesize the article(s), and share the key findings with the class in 5-7 minutes.

Other homework assignments (Individual/Group Activity):
There will be various mini-assignments throughout the semester (examples of such activities include but are not limited to: reflection paper on concepts covered in class, a small design project, participation in an HCI study, or exercise/practice on the topic discussed).
Usability Project (Group Activity):

One of the goals of this course is to provide students with hands-on experience on HCI. A project is an extremely useful way of providing this experience. The project requires students to work in teams. Each group will be required to gather user requirements from the user group(s), design the user interface and develop prototype(s), and evaluate the prototype. This process can be iterative.

The project includes four major components:

Choosing the project
Your team should choose the project on your own. The project should involve certain design/redesign aspect and allow you to apply the user-centered approach in the design cycle. You are encouraged to find a “real” project, with a “client”, a reasonable sized user group, and possible interactions with other stakeholders. Write a brief project proposal to explain the project background, client expectations, deliverables, and timeline.

Identifying users and gathering user requirements
In this stage, you need to identify your user group(s) and gather user requirements using various techniques discussed in the class. This will be the focus of this project and a great opportunity for you to apply the various usability techniques to practice. Techniques that you may apply in this stage can include, but are not limited to: user persona, usability testing, contextual inquiry, interview, survey, observation, eye tracking, etc.

Prototyping
You will develop prototype(s) for the project based on your users’ requirements. Prototyping usually includes a few iterations, including low-fidelity prototypes such as paper prototyping and high-fidelity prototypes such as wireframes generated via computer software. You may use any computer software or programming language that you are comfortable with for this assignment. Some software will be introduced in the class and you are encouraged to practice them in your project.

Evaluation
To evaluate the effectiveness of your design, you will be expected to test your prototype(s) with your users. Evaluation techniques will be introduced in the class and some initial evaluations will be conducted in this project.

Each group will be given about 25-30 minutes to present their project in the class. Each group is also responsible for answering any questions the professor or the other students may have about the project. Each group is also required to submit a final project report to detail your tasks and results at the end of the semester.

To prevent free riding in the group, peer evaluations will be conducted. Your participation and contribution in the group project will be evaluated by your team members. Your evaluation is confidential. No one will look at your peer evaluation except the professor. Grades will be assigned to individual members in the group based on the peer evaluations. It is, therefore, very
important that you contribute your share of time and effort in the group project (which includes attending the group meetings, contributing your ideas, etc.).

Exams (Individual Activity):

There will be two exams in this class. The exams will cover materials from the assigned readings, class lectures, student presentations, and in-class discussions. The format of the exams will be true/false, multiple-choice, and short-essay questions.

Class Participation (Individual/Group Activity):

Your participation is essential for the success of this class. There will be a subjective evaluation on your participation in class activities. Attendance will be monitored. Each absence will be interpreted as an unprepared class and will be recorded as a zero for that day's class participation. For distance students, you should submit a weekly summary of topics and your opinions of the current topic/material before the next class, if you do not participate during class, to receive class participation. Students are also encouraged to utilize the electronic communication tools to communicate with your team members and discuss course related topics.
Course Grading
Homework assignments 50 points
- Online discussion 30 points
- HCI article presentation 20 points

Group Project 200 points
- Project proposal 10 points
- Project update 10 points
- Project presentation 100 points
- Project report 80 points
- Peer evaluation weighted into final grade

Group mini assignments 20 points

Exam I 100 points
Exam II 100 points

Participation 30 points
- Class attendance 10 points
- Participation in classroom 20 points

Total 500 points

Grading Scale:

<table>
<thead>
<tr>
<th>Score</th>
<th>Grade</th>
<th>Score</th>
<th>Grade</th>
</tr>
</thead>
<tbody>
<tr>
<td>90 - 100</td>
<td>A</td>
<td>60 - &lt; 70</td>
<td>D</td>
</tr>
<tr>
<td>80 - &lt; 90</td>
<td>B</td>
<td>&lt; 60</td>
<td>F</td>
</tr>
<tr>
<td>70 - &lt; 80</td>
<td>C</td>
<td></td>
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Policies and procedures

Late Work Policy: Assignments are due at the beginning of the class or as indicated. Late work will not be accepted unless it is under exceptional circumstances (e.g., documented illness). The acceptance of late work is at the discretion of the professor.

Attendance/Participation: Both attendance and participation are important for this class and will be evaluated for grading.

Classroom Behavior: Disruptive behaviors will not be tolerated in this class. Turn off all audible alerts before class. If one goes off during class, that student must leave for the rest of that class. If there is an exam that period, the student will not be able to complete the exam. If you are talking to other students during presentations, you will receive negative points for participation.
Missouri University of Science & Technology  
Department of Business and Information Technology

Course Schedule (More will be filled in and updated before school starts)

<table>
<thead>
<tr>
<th>Week Starting</th>
<th>Topics</th>
<th>Reading Assignments</th>
</tr>
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<tbody>
<tr>
<td>Jan 19</td>
<td>Introduction and Course Overview Why HCI?</td>
<td>Chapter 1</td>
</tr>
<tr>
<td>Jan 25</td>
<td>The Process of Interaction Design Cognitive Aspects</td>
<td>Chapter 9</td>
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<tr>
<td></td>
<td></td>
<td>Chapter 3</td>
</tr>
<tr>
<td>Feb 1</td>
<td>Usability Lab Demonstration Social and Emotional Interaction Interface</td>
<td>Chapters 4 &amp; 5</td>
</tr>
<tr>
<td>Feb 8</td>
<td>Interface Interactions, and User Requirements</td>
<td>Chapters 2, 6, &amp;10</td>
</tr>
<tr>
<td>Feb 15</td>
<td>Career Fair Sept. 22 NO CLASS Data Gathering Techniques</td>
<td>Chapters 7 &amp; 8</td>
</tr>
<tr>
<td>Feb 22</td>
<td>Prototyping &amp; Interaction Design/Data gathering tools tutorialsHCI article presentations</td>
<td>Chapters 11 &amp; 12</td>
</tr>
<tr>
<td>Feb 29</td>
<td>Exam 1: Chapters 1-10 Evaluation</td>
<td>Chapters 13, 14, &amp; 15</td>
</tr>
<tr>
<td>Mar 7</td>
<td>HCI article presentations</td>
<td></td>
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<tr>
<td>Mar 14</td>
<td>HCI article presentations</td>
<td></td>
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<tr>
<td>Mar 21</td>
<td>HCI article presentations</td>
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<tr>
<td>Apr 4</td>
<td>HCI article presentations</td>
<td></td>
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<tr>
<td>Apr 11</td>
<td>HCI article presentations</td>
<td></td>
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<tr>
<td>Apr 18</td>
<td>Group Project presentations</td>
<td>Exam 2 Chapters 11-15</td>
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<tr>
<td>Apr 25</td>
<td>Group Project presentations</td>
<td></td>
</tr>
<tr>
<td>May 2</td>
<td>Group Project presentations</td>
<td></td>
</tr>
<tr>
<td>May 8</td>
<td>Group Report Due</td>
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</table>
Student Honor Code and Academic Integrity:
Please take a few minutes to stress the importance of academic integrity in class. Discuss why it should matter to the student, why it matters to you and your discipline, why it matters to Missouri S&T, and why it matters to future employers. Include a statement on your syllabus about the Honor Code developed and endorsed by the Missouri S&T Student Council: the Honor Code can be found at this link: http://stuco.mst.edu/about/honor.shtml. Encourage students to read and reflect upon the Honor code and its emphasis on HONESTY and RESPECT. Page 30 of the Student Academic Regulations handbook describes the student standard of conduct relative to the University of Missouri System’s Collected Rules and Regulations section 200.010, and offers descriptions of academic dishonesty including cheating, plagiarism or sabotage (http://registrar.mst.edu/academicregs/index.html). Additional guidance for faculty, including the University’s Academic Dishonesty Procedures, is available on-line at http://ugs.mst.edu. Other informational resources for students regarding ethics and integrity can be found online at http://ugs.mst.edu/academicintegrity/studentresources-ai

S&Tconnect: https://blackboard.mst.edu/ (S&Tconnect tab)
Coming fall 2014, Missouri S&T is implementing a new advising system as part of the four UM campuses Comprehensive Retention Initiative called S&Tconnect. S&Tconnect provides an enhanced system that allows students to request appointments with their instructors and advisors via the S&Tconnect calendar, which syncs with the faculty or staff member’s Outlook Exchange calendar. S&Tconnect will also facilitate better communication overall to help build student academic success and increase student retention. S&Tconnect Early Alert will replace the Academic Alert system used by Missouri S&T. However, Academic Alert will continue to run in parallel with Early Alert until the end of the fall 2014 semester. Training will be provided beginning opening week of fall 2014 semester.

Classroom Egress Maps
Faculty should explain where the classroom emergency exits are located. Please include a statement in your course syllabus asking the students to familiarize themselves with the classroom egress maps posted on-line at: http://registrar.mst.edu/links/egress/.

Disability Support Services: http://dss.mst.edu
Any student inquiring about academic accommodations because of a disability should be referred to Disability Support Services so that appropriate and reasonable accommodative services can be determined and recommended. Disability Support Services is located in 204 Norwood Hall. Their phone number is 341-4211 and their email is dss@mst.edu. Instructors may consider including the following statement on their course syllabus as a means of informing students about the services offered:
"If you have a documented disability and anticipate needing accommodations in this course, you are strongly encouraged to meet with me early in the semester. You will need to request that the Disability Services staff send a letter to me verifying your disability and specifying the accommodation you will need before I can arrange your accommodation."

LEAD Learning Assistance http://lead.mst.edu
The Learning Enhancement Across Disciplines Program (LEAD) sponsors free learning assistance in a wide range of courses for students who wish to increase their understanding, improve their skills, and validate their mastery of concepts and content in order to achieve their full potential. LEAD assistance starts no later than the third week of classes. Check out the
online schedule at [http://lead.mst.edu/assist](http://lead.mst.edu/assist), using zoom buttons to enlarge the view. Look to see what courses you are taking have collaborative LEAD learning centers (bottom half of schedule) and/or Individualized LEAD tutoring (top half of the schedule). For more information, contact the LEAD office at 341-7276 or email lead@mst.edu.

**The Burns & McDonnell Student Success Center**
The Student Success Center is a centralized location designed for students to visit and feel comfortable about utilizing the campus resources available. The Student Success Center was developed as a campus wide initiative to foster a sense of responsibility and self-directedness to all S&T students by providing peer mentors, caring staff, and approachable faculty and administrators who are student centered and supportive of student success. Visit the B&MSSC at 198 Toomey Hall; 573-341-7596; [mailto:success@mst.edu](mailto:success@mst.edu); facebook: [www.facebook.com/mstssc](http://www.facebook.com/mstssc); web: [www.studentsuccess.com](http://www.studentsuccess.com)

**Title IX**
Missouri University of Science and Technology is committed to the safety and well-being of all members of its community. US Federal Law Title IX states that no member of the university community shall, on the basis of sex, be excluded from participation in, or be denied benefits of, or be subjected to discrimination under any education program or activity. Furthermore, in accordance with Title IX guidelines from the US Office of Civil Rights, Missouri S&T requires that all faculty and staff members report, to the Missouri S&T Title IX Coordinator, any notice of sexual harassment, abuse, and/or violence (including personal relational abuse, relational/domestic violence, and stalking) disclosed through communication including but not limited to direct conversation, email, social media, classroom papers and homework exercises.

Missouri S&T’s Title IX Coordinator is Vice Chancellor Shenethia Manuel. Contact her directly ([manuels@mst.edu](mailto:manuels@mst.edu); (573) 341-4920; 113 Centennial Hall) to report Title IX violations. To learn more about Title IX resources and reporting options (confidential and non-confidential) available to Missouri S&T students, staff, and faculty, please visit [http://titleix.mst.edu](http://titleix.mst.edu).