

Course Syllabus

Course Information

ACN 6342.0W1
Human-Computer Interaction 2
Spring 2015

Professor Contact Information

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Course Prerequisites, Corequisites, and/or Other Restrictions

ACN 6341 (HCI 1) is highly recommended

Course Description

The primary aims of this course are to build on the methods and principles of human factors, human-computer interaction, user-centered design (UCD), and usability evaluation that were introduced in Human-Computer Interaction 1.

This course will allow students to explore in more detail particular areas within the field of human-systems interaction. It will also give students the opportunity to put into practice some of the methods and approaches that are typically used when designing usable systems.

Student Learning Objectives/Outcomes

After completing this course, students should have accomplished the following course objectives:

1. Gain a more in-depth understanding of human-computer interaction theory and research. (a) Understand the basics of human performance modeling and use the Keystroke-Level Model to show how interfaces can be modeled without user presence. (b) Understand human error classification and how it affects interface design. (c) Understand how social networking has changed how humans and machines interact.
 2. Be able to evaluate and critique research articles in the field of HCI. Be able to extend the research contained within existing articles.
 3. Be able to design systems that meet the needs of the target user group.
 4. Demonstrate the ability to evaluate interfaces against an accepted set of industry norms.
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Required Textbooks and Materials

Readings as posted on eLearning

Suggested Course Materials

Norman, D. *The Design of Everyday Things*. Basic Books. 2002. ISBN 065067107.
Johnson, J. *Designing with the Mind in Mind*, 2 ed. Morgan Kaufman. 2014. ISBN 0124079148.
Unger, R. & Chandler, C. *A Project Guide to UX Design*, 2 ed. New Riders. 2012. ISBN 0321815386.
Rubin, J. & Chisnell, D. *Handbook of Usability Testing*. Wiley Books. 2008. ISBN 0470185481.

Technical Requirements

At a minimum, students should have access to a computer with a modern web browser and typical office productivity software (e.g. Microsoft Office, OpenOffice, Apple iWork.) Students will need a microphone and speakers or a headset in order to participate in the interactive sessions. More advanced tools such as a graphics program and a screen capture tool are suggested, but not required. A digital camera (camera phone is acceptable) is useful but not required.

Assignments & Academic Calendar

This course is composed of five modules and is designed to take you the entire semester to complete. Each module will span several weeks and you are expected to complete each module within the scheduled weeks, although you may work on the module at any time during those weeks. Pay attention to due dates for quizzes and discussion board assignments within each module.

Additionally, once per module, we will hold an interactive session via Blackboard Collaborate that will be a combination of lecture and open discussion. You are expected to attend all interactive sessions. Time will be determined by what is best for the majority of the class once the semester begins.

Module	Dates	Module Theme/Partial List of Topics	Assignments
1	Jan 12- Jan 23	Overview and Planning Introduction/Review Definitions Research and Planning	Module quiz Design Journal/Disc Board
2	Jan 26- Feb 13	User Research/Discovery Research Methods User Analysis	Module quiz Design Journal/Disc Board
3	Feb 16- Feb 27	Analysis/Documentation of Research Affinity Diagramming Personas Scenarios Task Analysis	Module quiz Design Journal/Disc Board User identification homework due Project idea due
	Mar 2-6	Midterm	
4	Mar 9- Mar 27	Design Information Architecture Interaction Design Visual Design Prototyping <i>(Note: Spring Break falls during this lesson, so it is two weeks of material, but spans three calendar weeks)</i>	Module quiz Design Journal/Disc Board Task analysis homework due Project stage one due
5	Mar 30- Apr 17	Evaluation Usability Testing Inspection Methods Cognitive Modeling	Module quiz Design Journal/Disc Board HE of non-computer product due Project stage two due
	Apr 20-24	Evaluation Documentation Wrap-up/Review	Module quiz KLM homework due
	Apr 27- May 1	Project Presentations	Final projects due Research review due
	May 5-11	Final exam	

DESIGN JOURNAL

At least once per module, you will need to participate in that module's discussion board about a design you have seen "in the wild." I will indicate each time as to what type of design you are looking for.

In your post, talk about what problem is being solved (user enjoyment is an acceptable answer), what the creator did correctly or incorrectly (using HCI principles you have learned thus far), and what you would change.

These entries should be a paragraph or two long. Please post them to the class eLearning site. If you have drawn something by hand, scanning to pdf is acceptable for posting.

Additionally, you are expected to provide feedback on your classmates' posts at least twice during the semester.

MODULE QUIZZES

For each module, there will be a short module quiz to test your understanding of the concepts of that module. You are expected to complete each of these.

HOMEWORK ASSIGNMENTS

There will be three or four homework assignments. These assignments will be posted online and will be related to the readings and lectures.

RESEARCH PROPOSAL

Each student will be responsible for 7-10 page research proposal. The proposal will consist of research into a topic of your choosing. This topic should be related in some way to human-computer interaction.

The source materials for your research can be from academic journals and/or from practitioner-focused publications. PLEASE NOTE: Your research should be based on "extra" readings. You may find a topic or issue you are interested in from reading an assigned article or the textbook, but your subsequent research will be from sources other than the assigned readings.

Your research proposal should define the topic, issue or problem you are interested in researching. In this write-up, you should describe the topic in general, the specific issue or issues you're interested in, and what you discovered in your initial research—including existing hypotheses or research that you would want to build upon. You can also describe your synthesis of the research—that is, if there are opposing viewpoints in the area you researched, you might describe whether (and if so, how) these viewpoints can be reconciled. In other words, you can take this as an opportunity to share your INFORMED opinion as to who's right, and who's wrong.

The list below contains some suggested journals. If you choose one not on this list, please check with me for approval.

- ☐ ACM Transactions on Computer-Human Interaction
- ☐ CHI Conference Proceedings
- ☐ Computers in Human Behavior
- ☐ Communications of the ACM
- ☐ Displays
- ☐ Human-Computer Interaction
- ☐ Human Factors
- ☐ International Journal of Human-Computer Interaction
- ☐ International Journal of Man-Machine Studies
- ☐ Proceedings of Human Factors and Ergonomics Society

Keep in mind, you are just setting the stage, so to speak, for a possible future research project. You do not actually have to conduct the research at this time.

EXAMS

You will have two exams consisting of fill-in-the-blank, short-answer, and short essay questions covering the topics covered both in the reading and in lecture.

These exams will be open book/note and will be conducted online using eLearning.

FINAL PROJECT

For your final project, you and your project team are to perform an HE, write a usability test plan, perform a type of user research of your choosing, and provide an information architecture mockup of a website or software application. More information will be provided during the semester.

Grading Policy

Grading is based on a set of a priori criteria: 90% correct for As, 80% for Bs, 70% for Cs, and 60% for Ds. In case we find that our assignments and exams were unusually difficult we may relax these criteria.

Grades will be based on the total number of points across the course.

Assignments and exams will be scored as follows:

- ☐ 10% participation (inc. all discussion boards, quizzes, interactive sessions)
- ☐ 10% research review
- ☐ 25% homework assignments
- ☐ 25% final project (all sections graded together)
- ☐ 30% exams

Course & Instructor Policies

YOU MUST SUBSCRIBE TO THE ADMINISTRATION DISCUSSION FORUM. I will use this forum to work out details such as timing for the interactive sessions, project groups, etc. You may also use it to communication with each other.

DON'T MISS AN EXAM! Make-up exams will be given only if: (a) you were seriously ill and have verifiable documentation from a physician, or (b) you were detained during the time period of the exam, or (c) you made arrangements prior to the exam to attend an urgent family affair (e.g., funeral). In any of these cases, you must notify me in advance of the scheduled time of the exam (call and leave a voice-mail message if you can do nothing else). Otherwise, you will receive an F. It is the student's responsibility to make sure that an exam is made up within one week of the scheduled time.

LATE WORK will be penalized 10% for each day late. After 3 days, it will not be accepted without a valid university-approved excuse.

EXTRA CREDIT will be available on each exam.

Your PARTICIPATION grade is dependent on your activity in the discussion board and attendance at the interactive sessions.

Student Resources

Access to many University resources are available to students. Some sources of interest include:

UTD Distance Learning: <http://www.utdallas.edu/distancelearning/students>

McDermott Library: Distance Learners (UTD students who live outside the boundaries of Collin, Dallas, Denton, Rockwall, or Tarrant counties) will need a UTD-ID number to access all of the library's electronic resources (reserves, journal articles, ebooks, interlibrary loan) from off campus. For UTD students living within those counties who are taking online courses, a Comet Card is required to check out materials at the McDermott Library. For more information on library resources go to <http://www.utdallas.edu/distancelearning/students/libraries.html>

Comet Creed

This creed was voted on by the UT Dallas student body in 2014. It is a standard that Comets choose to live by and encourage others to do the same:

“As a Comet, I pledge honesty, integrity, and service in all that I do.”

UT Dallas Syllabus Policies and Procedures

The information contained in the following link constitutes the University’s policies and procedures segment of the course syllabus.

Please go to <http://go.utdallas.edu/syllabus-policies> for these policies.

The descriptions and timelines contained in this syllabus are subject to change at the discretion of the Professor.