

User Experience

Research and Design

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Scope

Process

User
Goals

Content
Requirements

Design

Card

Sorting

~~Setup~~

Setup

CTEC4323 User Experience Research and Design

Dr. Brian Horton, Fine Arts Building 413c
brianhorton@uta.edu

Class Location: FAB 412

Class Time: Tue & Thu, 9:30 - 10:50AM

Description of Course Content

Study of contemporary theories of user experience research including human-computer interaction, interaction design, multimodal communication, and industrial design. Students are expected to apply these theories in constructing desirable, viable and feasible web applications, designing for new and emerging technologies, and anticipating future trends.

Prerequisite

A grade of C or better (2.0/4.0) in COMM 2311 (previously listed as JOUR 1345), CTEC 2350, CTEC 3320, CTEC 3350, or, for non-CTEC majors, permission of the department.

Student Learning Outcomes

- Understand niche markets to create a usable, desirable, feasible web-based solution
- Conduct original and secondary research to better understand user needs
- Use communication technologies to work collaboratively in a group (e.g., Slack, Github, Trello)
- Create solutions using an Agile methodology
- Quickly build prototypes to test interaction hypotheses
- Apply communication, psychological, sociological, anthropological and economic theories to the create of web-based solutions
- Work seamlessly across different digital graphic applications

Required Textbooks and Other Course Materials:

- Lidwell, W., Holden, K., & Butler, J. (2003). Universal Principles of Design. Rockport.
- Duckett, J. (2014). Javascript & jQuery. Wiley.
- Kholmatova, A. (2017). Design Systems. Smashing Media, Freiburg, Germany.
- USB or external hard-drive to save and backup file
- Sketch pad, pencil, and sketch pad for sketching wireframes and interactions
- PostIt notes
- Axure RP software
- RECOMMENDED: Student subscription to Adobe Creative Cloud
- Lynda.com

Descriptions of major assignments:

- **VALUE OPPORTUNITY ANALYSIS** Value opportunity analysis maps the extent to which a product's aspirational qualities align to people's idealized lifestyle or fantasy version of themselves. We will be using a VOA to better understand how our product competes with other competitor websites in terms of perceived value.
- **COMPETITIVE ANALYSIS** A competitive analysis is a tool for discovering how competitors stack up to your company or client. I have provided you with an Excel spreadsheet to get you started. Refer to <http://www.usabilitynet.org/tools/competitoranalysis.htm> for more information on conducting a competitive analysis.
- **PERSONAS** Personas are a documented set of archetypal people who are involved with a product or service. You should devise personas from observing and talking to users. You should create 4-7 personas. Personas are typically composites of multiple people who share similar goals, motivations, and behaviors. Different personas are created by analyzing the difference between what people do and why they do them. A persona is only useful when the designer sets up scenarios and uses the personas to test features for appropriateness and utility. For example, "Would this persona do this task?" "Could this persona do this task as designed?" The persona should clearly note the behaviors, motivations, and goals that differentiate one persona from another. A persona should include a picture, descriptive title (e.g., "Bob the Conservationist"), demographic descriptions, information usage, device usage, and quotables.
- **JOBS-TO-BE-DONE** The "Jobs-to-be-done" is a framework that helps the product team discern why users "hire" your product. It is similar to a task list or use case, but focuses on the user's deep needs and is outcome focused.
- **USER SURVEYS** We will be using Qualtrics to design qualitative and quantitative surveys to better understand the needs and motives of our target users. We will also be using surveys to test out hypotheses about design and task preferences.
- **DESIGN SYSTEMS**: For this class, we will be attempting to design a coherent design system in a collaborative manner. Using principles derived from our text *Design Systems*, we will be employing Brad Frost's Atomic Design principles to craft an interactive, iterative design system that can be used by all team members across or design phases.
- **A/B TESTING** A/B testing refers to comparing two different features against each other to see which one performs the best with the target user. The tests should be simple enough so that you can rule out extraneous variables and alternative explanations.

Attendance

At The University of Texas at Arlington, taking attendance is not required but attendance is a critical indicator in student success. Each faculty member is free to develop his or her own methods of evaluating students' academic performance, which includes establishing course-specific policies on attendance.

As the instructor of this section, attendance will be taken each class. If you are late by more than 15 minutes, you will be considered tardy; 2 tardies equal 1 absence. After your second absence, a 2% deduction will be applied to your final grade for each subsequent absence. If you are absent more than twice during a group quiz period, you must take the quiz by yourself and will be given an alternative version.

However, while UT Arlington does not require instructors to take attendance in their courses, the U.S. Department of Education requires that the University have a mechanism in place to mark when Federal Student Aid recipients "begin attendance in a course." UT Arlington instructors will report when students begin attendance in a course as part of the final grading process. Specifically, when assigning a student a grade of F, faculty report the last date a student attended their class based on evidence such as a test, participation in a class project or presentation, or an engagement online via Blackboard. This date is reported to the Department of Education for federal financial aid recipients.

Make-Up Exams

Exams can only be made up with an officially documented excuse. All make-up exams will be conducted Wednesday of finals week at 12:00PM. Absences due to job interviews, vacation plans, oversleeping and the like are not valid grounds for missing an exam and cannot be made up. You must resolve these issues before the exam date.

Grading

<i>ASSIGNMENT/ASSESSMENT</i>	<i>TOTAL %</i>
Semester Project and Exercises	30%
Javascript Exercises	30%
Exams	30%
Group Participation and Evaluation	10%

Expectations for Out-of-Class Study

Beyond the time required to attend each class meeting, students enrolled in this course should expect to spend at least an additional 9 hours per week of their own time in course-related activities, including reading required materials, completing assignments, preparing for exams, etc.

Drop Policy

Students may drop or swap (adding and dropping a class concurrently) classes through self-service in MyMav from the beginning of the registration period through the late registration period. After the late registration period, students must see their academic advisor to drop a class or withdraw. Undeclared students must see an advisor in the University Advising Center. Drops can continue through a point

two-thirds of the way through the term or session. It is the student's responsibility to officially withdraw if they do not plan to attend after registering. Students will not be automatically dropped for non-attendance. Repayment of certain types of financial aid administered through the University may be required as the result of dropping classes or withdrawing. For more information, contact the Office of Financial Aid and Scholarships (<http://www.uta.edu/aao/fao/>).

The last drop date for the course is March 30, before 4:00 p.m. CST.

Americans with Disabilities Act

The University of Texas at Arlington is on record as being committed to both the spirit and letter of all federal equal opportunity legislation, including the Americans with Disabilities Act (ADA). All instructors at UT Arlington are required by law to provide "reasonable accommodations" to students with disabilities, so as not to discriminate on the basis of that disability. Any student requiring an accommodation for this course must provide the instructor with official documentation in the form of a letter certified by the staff in the Office for Students with Disabilities, University Hall 102. Only those students who have officially documented a need for an accommodation will have their request honored. Information regarding diagnostic criteria and policies for obtaining disability-based academic accommodations can be found at www.uta.edu/disability or by calling the Office for Students with Disabilities at (817) 272-3364.

Title IX

The University of Texas at Arlington is committed to upholding U.S. Federal Law "Title IX" such that no member of the UT Arlington community shall, on the basis of sex, be excluded from participation in, be denied the benefits of, or be subjected to discrimination under any education program or activity. For more information, visit www.uta.edu/titleIX.

Academic Integrity

Students enrolled all UT Arlington courses are expected to adhere to the UT Arlington Honor Code:

"I pledge, on my honor, to uphold UT Arlington's tradition of academic integrity, a tradition that values hard work and honest effort in the pursuit of academic excellence."

I promise that I will submit only work that I personally create or contribute to group collaborations, and I will appropriately reference any work from other sources. I will follow the highest standards of integrity and uphold the spirit of the Honor Code."

UT Arlington faculty members may employ the Honor Code as they see fit in their courses, including (but not limited to) having students acknowledge the honor code as part of an examination or require-

ing students to incorporate the honor code into any work submitted. Per UT System Regents' Rule 50101, §2.2, suspected violations of university's standards for academic integrity (including the Honor Code) will be referred to the Office of Student Conduct. Violators will be disciplined in accordance with University policy, which may result in the student's suspension or expulsion from the University.

Electronic Communication

UT Arlington has adopted MavMail as its official means to communicate with students about important deadlines and events, as well as to transact university-related business regarding financial aid, tuition, grades, graduation, etc. All students are assigned a MavMail account and are responsible for checking the inbox regularly. There is no additional charge to students for using this account, which remains active even after graduation. Information about activating and using MavMail is available at <http://www.uta.edu/oit/cs/email/mavmail.php>.

Student Feedback Survey

At the end of each term, students enrolled in classes categorized as "lecture," "seminar," or "laboratory" shall be directed to complete an online Student Feedback Survey (SFS). Instructions on how to access the SFS for this course will be sent directly to each student through MavMail approximately 10 days before the end of the term. Each student's feedback enters the SFS database anonymously and is aggregated with that of other students enrolled in the course. UT Arlington's effort to solicit, gather, tabulate, and publish student feedback is required by state law; students are strongly urged to participate. For more information, visit <http://www.uta.edu/sfs>.

Final Review Week

A period of five class days prior to the first day of final examinations in the long sessions shall be designated as Final Review Week. The purpose of this week is to allow students sufficient time to prepare for final examinations. During this week, there shall be no scheduled activities such as required field trips or performances; and no instructor shall assign any themes, research problems or exercises of similar scope that have a completion date during or following this week unless specified in the class syllabus. During Final Review Week, an instructor shall not give any examinations constituting 10% or more of the final grade, except makeup tests and laboratory examinations. In addition, no instructor shall give any portion of the final examination during Final Review Week. During this week, classes are held as scheduled. In addition, instructors are not required to limit content to topics that have been previously covered; they may introduce new concepts as appropriate.

Emergency Exit Procedures

Should we experience an emergency event that requires us to vacate the building, students should exit the room and move toward the nearest exit, which is located by the stairwells next to either of the elevators. When exiting the building during an emergency, one should never take an elevator but should use the stairwells. Faculty members and instructional staff will assist students in selecting the safest route for evacuation and will make arrangements to assist individuals with disabilities.

Student Support Services

UT Arlington provides a variety of resources and programs designed to help students develop academic skills, deal with personal situations, and better understand concepts and information related to their courses. Resources include tutoring, major-based learning centers, developmental education, advising and mentoring, personal counseling, and federally funded programs. For individualized referrals, students may visit the reception desk at University College (Ransom Hall), call the Maverick Resource Hotline at 817-272-6107, send a message to resources@uta.edu, or view the information at www.uta.edu/resources.

Disability Accommodations

UT Arlington is on record as being committed to both the spirit and letter of all federal equal opportunity legislation, including The Americans with Disabilities Act (ADA), The Americans with Disabilities Amendments Act (ADAAA), and Section 504 of the Rehabilitation Act. All instructors at UT Arlington are required by law to provide “reasonable accommodations” to students with disabilities, so as not to discriminate on the basis of disability. Students are responsible for providing the instructor with official notification in the form of a letter certified by the Office for Students with Disabilities (OSD). Students experiencing a range of conditions (Physical, Learning, Chronic Health, Mental Health, and Sensory) that may cause diminished academic performance or other barriers to learning may seek services and/or accommodations by contacting:

The Office for Students with Disabilities, (OSD) www.uta.edu/disability or calling 817-272-3364.

Counseling and Psychological Services, (CAPS) www.uta.edu/caps/ or calling 817-272-3671.

Only those students who have officially documented a need for an accommodation will have their request honored. Information regarding diagnostic criteria and policies for obtaining disability-based academic accommodations can be found at www.uta.edu/disability or by calling the Office for Students with Disabilities at (817) 272-3364.

Title IX

The University of Texas at Arlington does not discriminate on the basis of race, color, national origin, religion, age, gender, sexual orientation, disabilities, genetic information, and/or veteran status in its educational programs or activities it operates. For more information, visit uta.edu/eos. For information regarding Title IX, visit www.uta.edu/titleIX.

Campus Carry

Effective August 1, 2016, the Campus Carry law (Senate Bill 11) allows those licensed individuals to carry a concealed handgun in buildings on public university campuses, except in locations the University establishes as prohibited. Under the new law, openly carrying handguns is not allowed on college campuses. For more information, visit <http://www.uta.edu/news/info/campus-carry/>

Librarian to Contact:

Evelyn Barker - ebarker@uta.edu | 817-272-6064

Jeff Downing - downing@uta.edu | 817-272-9505

Library Home Page	http://www.uta.edu/library
Subject Guides	http://libguides.uta.edu
Subject Librarians	http://www.uta.edu/library/help/subject-librarians.php
Database List	http://www.uta.edu/library/databases/index.php
Course Reserves	http://pulse.uta.edu/vwebv/enterCourseReserve.do
Library Tutorials	http://www.uta.edu/library/help/tutorials.php
Connecting from Off- Campus	http://libguides.uta.edu/offcampus
Ask A Librarian	http://ask.uta.edu

Tentative Class Schedule

<i>DAY</i>	<i>TOPIC / ACTIVITY</i>	<i>PREPARATION</i>	<i>ASSIGNMENT DUE</i>	<i>PROJECT DELIVERABLE</i>
01/16	- Approaches to User Experience Research and Design - What do UX researchers and designers do?	Lecture		
01/18	Design Systems	Design Systems, CH 1		
01/23	Design Principles	Design Systems, CH2		
01/25	AGILE: Card, Conversation, Confirmation	Handouts		Competitive Analysis
01/30	Card sorting techniques	Handouts		Value Opportunity Analysis
02/01	User personas	Handouts		
02/06	Experience maps	Handouts		
02/08	Experience maps	Handouts		4-7 User Proto Personas
02/13	Functional patterns and support	Designs Systems, CH3, 7-8		Jobs-to-be-done
02/15	Perceptual patterns	Design Systems, CH4		
02/20	Shared language	Design Systems, CH5		User Surveys
02/22	SASS variables, GIT version control	Jump Start SASS, CH3		
02/27	SASS variables, GIT version control	Jump Start SASS, CH3		Design System A - Color, Typography, Lists, Tables
02/29	SASS mixins, GIT version control	Jump Start SASS, CH4		

<i>DAY</i>	<i>TOPIC / ACTIVITY</i>	<i>PREPARATION</i>	<i>ASSIGNMENT DUE</i>	<i>PROJECT DELIVERABLE</i>
<i>03/01</i>	▪ Jump Start SASS, CH4, GIT version control			
<i>03/06</i>				
<i>03/08</i>	▪ Exam 1			Design System B - Modules
<i>03/20</i>	▪ Basic Javascript	Javascript and jQuery, CH2		
<i>03/22</i>	▪ Basic Javascript	Javascript and jQuery, CH2		Website, version 1.0
<i>03/27</i>	▪ Functions, Methods, and Objects	Javascript and jQuery, CH3	Javascript Exercise 1	
<i>03/29</i>	▪ Functions, Methods, and Objects	Javascript and jQuery, CH3		
<i>04/03</i>	▪ Functions, Methods, and Objects	Javascript and jQuery, CH3		
<i>04/05</i>	▪ Decisions and Loops	Javascript and jQuery, CH4	Javascript Exercise 2	Website, Versions 1.1
<i>04/10</i>	▪ Decisions and Loops	Javascript and jQuery, CH4		
<i>04/12</i>	▪ Document Object Model	Javascript and jQuery, CH5	Javascript Exercise 3	
<i>04/17</i>	▪ Document Object Model	Javascript and jQuery, CH5		
<i>04/19</i>	▪ Document Object Model	Javascript and jQuery, CH5		Website, Version 1.2

<i>DAY</i>	<i>TOPIC / ACTIVITY</i>	<i>PREPARATION</i>	<i>ASSIGNMENT DUE</i>	<i>PROJECT DELIVERABLE</i>
<i>04/26</i>	▪ Events	Javascript and jQuery, CH6	Javascript Exercise 4	
<i>04/28</i>	▪ Events	Javascript and jQuery, CH6		
<i>05/01</i>	▪ Events ▪ A/B Testing	Javascript and jQuery, CH6		Website, Version 1.3
<i>05/03</i>	▪ A/B Testing		Javascript Exercise 5	
<i>EXAM WEEK</i>				Website, Version 2.0