

## **ADES 5420 – HUMAN-CENTERED INTERACTION DESIGN 1**

*Instructor:* Michael R. Gibson, Associate Professor or Keith M. Owens, Associate Professor

*Office Hours:*TBD

### **Course Description**

The discipline and profession of Interaction Design will be examined as this course progresses as amalgamations of conceptual frameworks and real-world activities that 1) involve computing technologies and that 2) directly and indirectly affect how particular groups of people think and behave in a wide variety of social, economic and political situations. Both this course and "Human-Centered Interaction Design 2" are offered sequentially during the first two semesters of study in the curriculum that facilitates the MA in Design with a Concentration in Interaction Design.

The coursework of ADES 5420 will enable students to begin to conceive of and practice Interaction Design as a distinct form of communication that shares essential characteristics with language, such as rhetorical structure, argumentation, and the interchangeability of messages and reflexivity (well-designed interactive experiences can refer to themselves, and people can talk and write about Interaction Design). Students will also come to understand Interaction Design as a human-centered endeavor, one that must combine the following:

- the cultivation of awarenesses about how and why design processes and their outcomes affect the ways specific individuals and groups think and act;
- the iterative and analytically informed development of complex information architecture;
- the knowledge necessary to facilitate usability testing to improve the welfare of others as they engage with various types of computing technologies;
- the ability to initiate and sustain meaningful, critical dialogue throughout the course of a project's development.

Prerequisites (for MA in Des w/ Concentration in IxD students): Admittance into the MA in Design with a concentration in IxD program; (for Com Sci and Tech Comm students): permission of the instructor

### **Required Texts**

Hartson, R. & Pardha, P.S. (2012). *The UX Book: Process and Guidelines for Ensuring a Quality User Experience*.

Burlington, MA: Morgan Kaufmann.

Greenburg, S., Carpendale, S., Marquardt, N. Buxton, B. (2011). *Sketching User Experiences: The Workbook*. Burlington, MA: Morgan Kaufmann.

Krug, S. (2014). *Don't Make Me Think Revisited*. San Francisco, CA, USA: New Riders Publishing.

### **Recommended Texts**

Eyal, N. & Hoover, R. (2014). *Hooked: How to Build Habit-Forming Products*. New York, NY, USA: Portfolio, an imprint of Penguin Group USA.

### **Course Objectives**

Through the completion of course assignments, *students will acquire competency in the following areas:*

- learning to formulate and operate data gathering processes that allow them to analyze data gleaned from etic and emic field research methods so they can cultivate understandings about the relationships between particular groups and the interactive systems they use (etic approaches are operationalized outside a given social group, from the perspective of an observer; emic approaches are operationalized from within a given social group)
- the following foundational approaches and methods necessary to frame and strategically plan interactive experiences that prove to be useful, usable and desirable for specific user groups: the ability to accurately assess human factors, socio-cultural perceptions and levels and types of cognition
- the analytical and evaluative capacities necessary to assess the relative efficacies (re: usability testing and data processing/management performance) of extant interactive systems and experiences

Through the completion of course assignments, *students will develop competency in the following areas:*

- the ability to strategically plan and operationalize failure analysis processes and protocols to assess the design and functionality of various interactive systems
- the skills and understandings necessary to effectively identify interactive situations that are somehow problematic for particular groups
- the skills and understandings necessary to effectively account for and then analyze how and why a diverse array of contextualizing factors, conditions and behaviors cause or contribute to "what it is" that causes a given interactive situation to be problematic for a specific group

- the capacity to iteratively develop multiple, inventive and/or innovative approaches to re-thinking and re-making a given interactive situation so that it becomes less problematic for a specific group
- the aptitudes and capabilities necessary to effectively document their working processes, so that they emerge from this learning experience with a variety of means to showcase and, if necessary, “pitch” what they will have developed to potential collaborators, private investors and public funding agencies

**Course Structure**

This course is offered in a design studiolab format, and will meet for two, 90-minute class sessions per week (three contact hours per week total). Course content and studiolab etiquette during critically dialectic exchanges between fellow-students and students and faculty are all consistent with the requirements of pursuing a career in professional User Experience and Interaction Design environments. Under the guidance of the instructor, students will spend the first half of the semester engaging in project-based learning activities that will familiarize them with the following key interaction design concepts: human factors, perception, cognition, the relationships between affordances and signifiers, and fundamental research and design methods. The second half of the semester will challenge students to facilitate user testing sessions with each other, and, eventually, with target user groups in person and remotely to analyze and assess their responses to various levels of low- to hi-fi, interactive situations, interfaces and prototypes. The instructor will partner with students to glean and analyze knowledge from these testing sessions in ways that can effectively inform decision-making processes. Students will work in the studiolab as required, and participate in class discussions and critical dialogues during class hours. Students will submit their work on assigned course projects for critical discussion in iterative phases as stipulated by a per-project development schedule provided to them by the instructor. The CVAD Computer Lab, the computing facilities in room 315 of Curry Hall, the Design Research Collaborative in Dallas, and the data visualization and simulation lab in the UNT New College at Frisco are available to students to work on assigned course projects outside of scheduled class time.

**Evaluation**

Each assigned project will be worth a specific number of total course points to individual students or students working in design teams. Each assigned project will be evaluated according to criteria articulated to all students on the day it is launched. How effectively each student/student team is assessed to have addressed specific project criteria will be recorded on an assessment document that each student will receive one to two weeks after the culmination of each project. The per-project course points each student earns as the semester progresses will be added together at the end of the semester to determine that student’s final course grade. A final project and final project presentation must be completed by the final exam date and time for this course. There is no final exam for this course.

Project I	Identifying and contextualizing a “problematic interaction”	10%
Project II	Case study analyses of interactive systems	20%
Project III	Case study analyses of workflow, planning and organization of interactive systems	20%
Project IV	Designing iteratively to generate low- to mid-fi prototypes	25%
Phase V	Designing iteratively to generate higher-fidelity prototypes	25%

**Attendance Policy**

Attendance is mandatory. Students must sign the attendance sheet during the first (15) minutes of class. No student may sign for another. Every unexcused absence over two will result in a letter grade reduction of the final course grade beginning with the third unexcused absence. Each two instances of tardiness over an initial two of these will be counted as one absence. A student is tardy if he/she arrives after the first 15 minutes of class have elapsed. No make-up opportunities for a missed class session will be given to any student enrolled in this course *unless* that student presents the professor with a UNT-Approved Absence Verification form within 72 hours of the ending of the class session that was missed. Students are hereby notified that meeting with the Instructor of Record for this course during an office hours session does NOT make up/cannot be substituted for a class session that was missed.

**Course Risk Factor**

This class has been assigned a level 1 Risk Rating, a course in which students are exposed to some minor hazards (most particularly, repeated computer usage), but are not likely to suffer bodily harm.

**American Disabilities Act**

The College of Visual Arts and Design is committed to full academic access for all qualified students, including those with disabilities. In keeping with this commitment and in order to facilitate equality of educational access, faculty members in the College will execute reasonable accommodations for qualified students with a disability, such as making

appropriate adjustments to the classroom environment, as well as to the teaching, testing, or learning methodologies that are operated within the structure of the course, as long as actuating any of these adjustments does not fundamentally alter the content that must be delivered within the structure of the course.

If you have a disability, it is your responsibility to obtain verifying information from the Office of Disability Accommodation (ODA; <https://disability.unt.edu/>), and to inform the instructor of your need for an accommodation. Requests for accommodation must be given to the instructor no later than 5 pm CST on the final day of the first week of classes for students registered with the ODA as of the beginning of the current semester. If you register with the ODA after the first week of classes, your accommodation requests will be considered after this deadline.

*Grades assigned before an accommodation is provided will not be changed.* Information about how to obtain academic accommodations can be found in UNT Policy 18.1.14, at <https://disability.unt.edu/>, and by visiting the ODA in Sage Hall on the UNT Denton campus, room 167 (visit the UNT website for updated location information). You also may call the ODA at 940.565.4323.

### **Building Emergency Procedures**

In case of emergency, an alarm will sound. If this occurs, please follow the building evacuation plans posted on each floor of your building and proceed to the nearest parking lot. In case of a tornado (campus sirens will sound), or other weather-related threat, please go to the nearest hallway or room on your floor *without exterior windows* and remain there until an all clear signal is sounded. Follow the instructions of your instructors and act accordingly.

### **Student Rights and Responsibilities**

Each University of North Texas student is entitled to certain rights associated with higher education institutions. See [www.unt.edu/csrr](http://www.unt.edu/csrr) for further information.

### **Disclaimer**

The instructor retains the right to change the course syllabus and schedule without notice.