

**University of Texas at Austin**  
**Austin, TX**  
**Spring 2019 Semester**  
**Classroom-Based Class**

**Course Title:** INF 350C, Advanced Topics in Human-Computer Interaction:  
**Design and Research Fundamentals** (HCI/UX Emphasis)  
27349

**Course Credit:** 3 Credits

**Meeting Time:** Once a week combined lecture and studio  
Wednesday 5:00-8:00pm, CAL 21 [map](#)

**Professors:** **Sandra Sweat, MSIS**  
Adjunct professor  
School of Information Science  
Office hours: Wednesday 8:00-9:00pm or by appointment in CAL 21  
Best Contact: please use canvas messaging

**Chase Airmet, MSID**  
Adjunct professor  
School of Information Science  
Office hours: Wednesday 8:00-9:00pm or by appointment in CAL 21  
Best Contact: please use canvas messaging

**Course Description:**

Design and research fundamentals covers what it means to apply research and design to problems faced by consumers, businesses, and groups of people. The techniques covered in this course will help students gain confidence in visual communication, understand the different practices related to learning about users, and the elements of design.

**What will I learn?**

*Main skills and attitudes to be developed:*

- How do conduct research to learn about software users and how to apply research findings.
- How to test ideas quickly and make changes based on feedback.
- Communicating ideas and findings based on your audience
- Fundamentals of visual design to communicate ideas and product decisions.
- The iterative design process
- Students will engage in analogue and digital drawing as a means to express the research, development, and design process.

## **How will I learn?**

During the first half of the semester, the course is a mix of weekly lectures and lab sessions where students learn and practice the foundations of research and design. The second part of the course will be weekly critiques and student presentations on research and design topics.

## **Prerequisites for the course:**

There are no prerequisites for the course

## **How to succeed in this course:**

Students are responsible for reading the assignment and asking for clarification prior to the assignment due date.

## **Course Requirements**

### **Required Materials**

#### **Textbooks**

Norman, D. A. (2013). *The design of everyday things*. New York: Basic Books.

Hall, E. (2013). *Just enough research*. NY, NY: A Book Apart.

#### **Supplies**

Drawing instruments (such as pens, pencils, markers, rulers,...)

3x5 cards

Laptop computer

Unlined notebook (dot grid ok)

### **Required Devices & Supplies**

For completing in class assignments, student should bring laptops to class. It is also recommended that students have materials to take notes on paper (ie, notebook, legal pad, pens).

Software requirements - design software should be available in library and iSchool labs. If students wish to purchase design software, they are welcome to do so.

\*Software options will be discussed in the first class session.

### **Classroom expectations**

**Class attendance** students are expected to attend all classes and attendance will be part of the grade for the semester. If a student is unable to make it to a class, advanced notice needs to be given to instructors prior to the absence. In the case of illness, students must contact the instructors and absences will be handled on a case by case basis.

**Class participation** students are expected to participate in studio time and critiques by asking questions and following guidelines for providing feedback.

**Behavior expectations** [students are expected to respect instructors, classmates, and research

volunteers.

## **Assignments**

All assignments will have complete descriptions separate from the syllabus.

### **Individual Assignments**

#### **Ethnography**

After completing the in class ethnography session, students will go to different locations to observe and record contextual human behavior. (5% of grade)

#### **Literature Review**

Based on literature for your final project subject area, 3-5 page paper giving background on the topic area and insight into the problems that could be solved (5% of grade)

#### **Design of Everyday Things**

Documentation and presentation of everyday things around campus and your community that do not follow conventions. Visual ideations on solutions to everyday problems (10% of grade)

#### **Design Guide**

Presentation of a design method or principle and how to use it in practice. (5% of grade)

#### **Best Practices Presentation**

You will research either a design or research topic covered in the first part of the class and come up with recommendations for practice. Topics will be selected by the third class day (5% of grade)

## **Final Project Assignments**

### **Prototypes**

Completion of prototypes using different design tools. (10% of grade)

### **Research Synthesis**

Listing and description of research techniques used and findings. (10% of grade)

### **Final Project**

Research, prototyping, testing, and iteration to solve a problem (20% of grade)

## **Grading for this Course**

The following table represents how you will demonstrate your learning and how we will assess the degree to which you have done so.

| Assignments                        | Points possible | Percent of Total Grade |
|------------------------------------|-----------------|------------------------|
| <b>Ethnography</b>                 | 100             | 5                      |
| <b>Literature Review</b>           | 100             | 5                      |
| <b>Design of Everyday Things</b>   | 100             | 10                     |
| <b>Design Tools Guide</b>          | 100             | 5                      |
| <b>Best Practices Presentation</b> | 100             | 5                      |
| <b>Prototypes</b>                  | 100             | 10                     |

|  |     |    |
|--|-----|----|
| <b>Research Synthesis</b>                            | 100 | 10 |
| <b>Final Project</b>                                 | 100 | 20 |
| <b>Weekly in class discussions &amp; assignments</b> | 100 | 30 |

## Course Outline

All instructions, assignments, readings, rubrics and essential information will be on the Canvas website at <https://utexas.instructure.com>. Check this site regularly and use it to ask questions about the course schedule.

**Changes** to the schedule may be made at our discretion and if circumstances require. It is your responsibility to note these changes when announced (although I will do my best to ensure that you receive the changes with as much advance notice as possible).

## Class Dates

### Important Dates

January 22 - Classes Begin

March 18-23 - Spring Break

May 10 - Last Class Day

May 15-21 - Finals

| Week | Date   | Class Topic   | Assignments due (in class)                   |
|------|--------|---|--|
| 1    | Jan 24 | First day of class <ul style="list-style-type: none"> <li>+ Syllabus</li> <li>+ Framework</li> <li>+ In class workshop</li> <li>+ Topic proposals</li> <li>+ Introduction to Survey design and analysis</li> <li>+ Whiteboarding</li> </ul>   |  |
| 2    | Jan 31 | Design Overview <ul style="list-style-type: none"> <li>+ Design history</li> <li>+ Design types</li> </ul> Visual Design topics <ul style="list-style-type: none"> <li>+ Design principles</li> <li>+ Color</li> <li>+ Type</li> </ul>  | Topic Proposals                              |
| 3    | Feb 7  | Research <ul style="list-style-type: none"> <li>+ Primary research               <ul style="list-style-type: none"> <li>+ Ethnography - observation &amp; discussion</li> </ul> </li> <li>+ Secondary research               <ul style="list-style-type: none"> <li>+ Library - scavenger hunt</li> </ul> </li> </ul> | Select Topic for Best Practices Presentation |

|    |          |   |   |
|----|----------|---|---|
| 4  | Feb 14   | <p>Research Tools</p> <ul style="list-style-type: none"> <li>+ Surveys</li> <li>+ Interviews</li> </ul> <p>In class discussion the design of everyday things</p> <ul style="list-style-type: none"> <li>+ Finding everyday objects</li> </ul> | Ethnography assignment due<br><br>Discussion prep for Design of Everyday Things |
| 5  | Feb 21   | <p>Visual Communication</p> <ul style="list-style-type: none"> <li>+ Whiteboarding</li> <li>+ Drawing</li> </ul> <p>Design Tools</p> <ul style="list-style-type: none"> <li>+ Pen &amp; Paper</li> <li>+ Software</li> </ul>                  | Design of Everyday Things Assignment due  |
| 6  | Feb 28   | <p>Prototypes</p> <p>Design Tools Presentations</p> <p>Topic Selection</p>  | Design Tools Guide Due  |
| 7  | Mar 7    | <p>Research</p> <p>Just Enough Research Discussion</p> <ul style="list-style-type: none"> <li>+ Evaluative research</li> <li>+ Synthesis methods</li> </ul>   | Discussion prep for Just Enough Research  |
| 8  | Mar 14   | <p>Making and Giving a Presentation</p> <ul style="list-style-type: none"> <li>+ 30/20/10 rule</li> <li>+ Presentation styles</li> </ul>  | Literature Review due   |
| 9  | Mar 21   | Spring Break - No class   |   |
| 10 | Mar 28   | Critique Introduction   |   |
| 11 | Apr 4    | Critique Best Practices Presentation  | Project Briefs and Methods  |
| 12 | Apr 11   | Critique Best Practices Presentation  | Inspiration and research  |
| 13 | Apr 18   | Critique Best Practices Presentation  | Prototype (wireframe)   |
| 14 | Apr 25   | Critique Best Practices Presentation  | Iteration based on testing  |
| 15 | May 2    | Critique Best Practices Presentation  | Test drive presentation   |
| 16 | May 9    | Last Day of Class Presentations   | Final presentation  |
| 17 | May 15-2 | Finals  | Send folder with all  |

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|  | 1 |  | materials |  |
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## Policies

### Classroom Policies

#### Statement on Learning Success

Your success in this class is important to me. We will all need accommodations because we all learn differently. If there are aspects of this course that prevent you from learning or exclude you, please let me know as soon as possible. Together we'll develop strategies to meet both your needs and the requirements of the course. I also encourage you to reach out to the student resources available through UT. Many are listed on this syllabus, but I am happy to connect you with a person or Center if you would like.

#### Grading Policies

[Description of your general approach; e.g. assignments are flexible but grades are firm; there is no curve; etc.]

| Grade | Cutoff |
|-------|--------|
| A     | 94%    |
| A-    | 90%    |
| B+    | 87%    |
| B     | 84%    |
| B-    | 80%    |
| C+    | 77%    |
| C     | 74%    |
| C-    | 70%    |
| D     | 65%    |
| F     | <65%   |

#### Late work

[Description of your policies; e.g. late work will be handled on a case-by-case basis.]

#### Absences

[Description of your policies; e.g. the only absences that will be considered excused are for religious holidays or extenuating circumstances due to an emergency.]

### Student Rights & Responsibilities

- You have a right to a learning environment that supports mental and physical wellness.
- You have a right to respect.
- You have a right to be assessed and graded fairly.
- You have a right to freedom of opinion and expression.
- You have a right to privacy and confidentiality.
- You have a right to meaningful and equal participation, to self-organize groups to improve your learning environment.

- You have a right to learn in an environment that is welcoming to all people. No student shall be isolated, excluded or diminished in any way.

With these rights come responsibilities:

- You are responsible for taking care of yourself, managing your time, and communicating with the teaching team and with others if things start to feel out of control or overwhelming.
- You are responsible for acting in a way that is worthy of respect and always respectful of others. Your experience with this course is directly related to the quality of the energy that you bring to it, and your energy shapes the quality of your peers' experiences.
- You are responsible for creating an inclusive environment and for speaking up when someone is excluded.
- You are responsible for holding yourself accountable to these standards, holding each other to these standards, and holding the teaching team accountable as well.

### **Personal Pronoun Preference**

Professional courtesy and sensitivity are especially important with respect to individuals and topics dealing with differences of race, culture, religion, politics, sexual orientation, gender, gender variance, and nationalities. Class rosters are provided to the instructor with the student's legal name. I will gladly honor your request to address you by a name different than what appears on the roster, and by the gender pronouns you use. Please advise me of this preference early in the semester so that I may make appropriate changes to my records.

## **University Policies**

### **Academic Integrity**

Each student in the course is expected to abide by the University of Texas Honor Code: "As a student of The University of Texas at Austin, I shall abide by the core values of the University and uphold academic integrity." **Plagiarism is taken very seriously at UT.**

Therefore, if you use words or ideas that are not your own (or that you have used in previous class), you must cite your sources. Otherwise you will be guilty of plagiarism and subject to academic disciplinary action, including failure of the course. You are responsible for understanding UT's Academic Honesty and the University Honor Code which can be found at the following web address:

[http://deanofstudents.utexas.edu/sjs/acint\\_student.php](http://deanofstudents.utexas.edu/sjs/acint_student.php)

### **Q Drop Policy**

If you want to drop a class after the 12th class day, you'll need to execute a Q drop before the Q-drop deadline, which typically occurs near the middle of the semester. Under Texas law, you are only allowed six Q drops while you are in college at any public Texas institution. For more information, see: <http://www.utexas.edu/ugs/csacc/academic/adddrop/qdrop>

## **University Resources for Students**

Your success in this class is important to me. We will all need accommodations because we all learn differently. If there are aspects of this course that prevent you from learning or exclude you, please let me know as soon as possible. Together we'll develop strategies to meet both your needs and the requirements of the course. There are also a range of resources on campus:

### *Services for Students with Disabilities*

This class respects and welcomes students of all backgrounds, identities, and abilities. If there are circumstances that make our learning environment and activities difficult, if you have medical information that you need to share with me, or if you need specific arrangements in case the building needs to be evacuated, please let me know. I am committed to creating an effective learning environment for all students, but I can only do so if you discuss your needs with me as early as possible. I promise to maintain the confidentiality of these discussions. If appropriate, also contact Services for Students with Disabilities, 512-471-6259 (voice) or 1-866-329-3986 (video phone). <http://ddce.utexas.edu/disability/about/>

### *Counseling and Mental Health Center*

Do your best to maintain a healthy lifestyle this semester by eating well, exercising, avoiding drugs and alcohol, getting enough sleep and taking some time to relax. This will help you achieve your goals and cope with stress.

All of us benefit from support during times of struggle. You are not alone. There are many helpful resources available on campus and an important part of the college experience is learning how to ask for help. Asking for support sooner rather than later is often helpful.

If you or anyone you know experiences any academic stress, difficult life events, or feelings like anxiety or depression, we strongly encourage you to seek support.

<http://www.cmhc.utexas.edu/individualcounseling.html>

### *The Sanger Learning Center*

Did you know that more than one-third of UT undergraduate students use the Sanger Learning Center each year to improve their academic performance? All students are welcome to take advantage of Sanger Center's classes and workshops, private learning specialist appointments, peer academic coaching, and tutoring for more than 70 courses in 15 different subject areas. For more information, please visit <http://www.utexas.edu/ugs/slcc> or call 512-471-3614 (JES A332).

Undergraduate Writing Center: <http://uwc.utexas.edu/>

Libraries: <http://www.lib.utexas.edu/>

ITS: <http://www.utexas.edu/its/>

Student Emergency Services: <http://deanofstudents.utexas.edu/emergency/>

### **Important Safety Information:**

If you have concerns about the safety or behavior of fellow students, TAs or Professors, call BCAL (the Behavior Concerns Advice Line): 512-232-5050. Your call can be anonymous. If something doesn't feel right – it probably isn't. Trust your instincts and share your concerns.

### **Title IX Reporting**

Title IX is a federal law that protects against sex and gender-based discrimination, sexual harassment, sexual assault, sexual misconduct, dating/domestic violence and stalking at federally funded educational institutions. UT Austin is committed to fostering a learning and

working environment free from discrimination in all its forms. When sexual misconduct occurs in our community, the university can:

1. Intervene to prevent harmful behavior from continuing or escalating.
2. Provide support and remedies to students and employees who have experienced harm or have become involved in a Title IX investigation.
3. Investigate and discipline violations of the university's [relevant policies](#).

Faculty members and certain staff members are considered "Responsible Employees" or "Mandatory Reporters," which means that they are required to report violations of Title IX to the Title IX Coordinator. **I am a Responsible Employee and must report any Title IX related incidents** that are disclosed in writing, discussion, or one-on-one. Before talking with me, or with any faculty or staff member about a Title IX related incident, be sure to ask whether they are a responsible employee. If you want to speak with someone for support or remedies without making an official report to the university, email [advocate@austin.utexas.edu](mailto:advocate@austin.utexas.edu) For more information about reporting options and resources, visit [titleix.utexas.edu](http://titleix.utexas.edu) or contact the Title IX Office at [titleix@austin.utexas.edu](mailto:titleix@austin.utexas.edu).

The following recommendations regarding emergency evacuation from the Office of Campus Safety and Security, 512-471-5767, <http://www.utexas.edu/safety/>

Occupants of buildings on The University of Texas at Austin campus are required to evacuate buildings when a fire alarm is activated. Alarm activation or announcement requires exiting and assembling outside.

- Familiarize yourself with all exit doors of each classroom and building you may occupy. Remember that the nearest exit door may not be the one you used when entering the building.
- Students requiring assistance in evacuation shall inform their instructor in writing during the first week of class.
- In the event of an evacuation, follow the instruction of faculty or class instructors. Do not re-enter a building unless given instructions by the following: Austin Fire Department, The University of Texas at Austin Police Department, or Fire Prevention Services office.
- Link to information regarding emergency evacuation routes and emergency procedures can be found at:  
[www.utexas.edu/emergency](http://www.utexas.edu/emergency)