ID 4863 UXD: User Testing for Experience Design – Summer 2026

Credit Value: 3
Time and Date: Tuesdays, 6:00 pm - 9:15 pm ET *(with 1 Thursday class, 7/31)*

Instructor: Dr. Gordon Vos
Contact Information: Email - gordon.vos@design.gatech.edu
Scheduled Course Office Hours: Tuesdays, 6:00pm ET, via Zoom *(with 1 Thursday class, 7/30)*

Course Format, Mode, and Expectations: Online (Synchronous) with a Self-Directed Class Project

Each class will be held online via Zoom. The Zoom call discussion periods will be started promptly at **6:00pm ET**. Attendance is mandatory. However, the class will be recorded for those who cannot make it in real-time due to an excused absence or pre-coordination with the instructor.

This class is an interactive one, with the expectation that students will join actively in class discussions, data collection for the class project, group activities, and real-time presentation of their project on the last day of class.

Course Description

This class is a practical and in-depth review of the methods used in user testing as it pertains to design prototype evaluations and trade studies. The class includes lectures covering the types of usability testing that can be used to assess design prototypes, review of the various measures and metrics that can be collected. Essentially this is a class on how to perform trade study evaluations and use the collected data to inform final design selection and decision making.

The course is based around a class project which demonstrates how to evaluate and pick the best of different hypothetical design prototypes. It is a fun example which is done using video games and different types of video game controllers.

The three different prototypes of video game controller will be evaluated by having students perform a task (such as playing a video game) while using each type of controller, and collecting human factors metrics such as time on task, error rates, and more.

The class goes over how to analyze the data collected, reach design decisions on which prototype to move forward with, and finally how to present the data to a customer or manager.

This class is designed to be practical, fun, and interactive, with a directly translatable skill set to real-world design and human factor related challenges.

Course Objectives
Upon completion of the course students are expected to:

- Understand the reasons for and value of user testing for experience design
- Understand the fundamentals behind trade studies and user testing
- Understand some of the core measures of human performance user associated with UXD (usability, satisfaction, acceptability, error rate, and time on task)
- Understand how to collect user testing data, organize it, code it, and analyze it
- Understanding how to interpret findings and communicate results
- Demonstrate their understanding through the class project and final presentation

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Course Format
Instructional methods for teaching the course include:

- Lectures with Real-Time In-Class Discussions (Held via Zoom)
- Readings
- Class Project

Weekly Learning Activities

- Lecture and Class Sessions (4.25 hours)
- Offline Reading (2 hours)
- Class Project Work (4-6 hours)

Course Calendar

Week	Date	Topic
1	Tuesday, June 30, 2026	Class Introduction, Introduction to User Testing for Experience Design
2	Tuesday, July 7, 2026	Trade Studies and User Testing
3	Tuesday, July 14, 2026	Core Measures of Human Performance: Usability, Satisfaction, Error Rate, Time on Task
4	Tuesday, July 21, 2026	Data Collection, Organization, and Coding
5	Tuesday, July 28, 2026	Testing Day! Collecting Data in Real-Time for Class Project
6	Thursday, July 30, 2026	Statistical Analysis of User Data, Communication of Findings
	Thursday, August 6, 2026	**Project Presentations Due (No Class)**

Course Requirements and Course Grading
The grades for this course will be based on the following course requirements and percentages of allocation (see list below). Note that class participation and communication is an essential part of any course, but it is particularly important given the nature of this course.

70% **Class Project**: This is the primary portion of the grade for this class.
30% **Class Participation and Communication**: This is particularly important given the nature of this class

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Readings
Relevant learning materials will be shared by the instructor as part of the class. No textbook is required.

Course Materials

The class does require several materials, both computer and software related, but for the most part these are expected to be items the student already owns as part of university required computing resources (a notebook or desktop computer) or are available for free (the 'R' software) or at very low cost if the student does not already own them (game controller).

Total costs if student needs to purchase a touchpad, game controller, and Portal will be around $56. Notebook users won't need to buy a touchpad, but may need to purchase an external mouse. However, many students may already have everything they need, and thus won't need to buy anything.

The purpose of these materials is that students will need to be able to play the game 'Portal' using 3 different user interfaces: mouse and keyboard, touchpad and keyboard, and game controller. The 'R' software is for analyzing the data results and generating graphs for the project presentations.

- Computer Hardware:
  - Notebook or desktop computer
  - Keyboard
    - Built into all notebook computers and needed for desktops too (so nothing extra needed)
  - Mouse
    - Desktop users likely already have one (so nothing extra needed)
    - Notebook users will need to acquire a low-cost external mouse ($7 on Amazon, Link)
      - Note: Some newer notebook computers only have USB-C ports (not the older larger USB ports, but the smaller oval ones). This will require a USB-C mouse or using an adapter with an older style one. An affordable USB-C mouse can be purchased on Amazon for $10 (Link)
  - Touchpad
    - Built into all notebook computers (so nothing extra needed)
    - If using desktop will need to acquire a low-cost touchpad ($28 on Amazon, Link)
  - Game controller for PC
    - Many students may already have one!
    - Available for as low as $17 on Amazon (Link)
- Software:
  - Microsoft Office (most already have this as it is required for most courses)
  - Portal (available via Steam for Windows, Mac and Linux; $10, Link)
  - R Statistical Analysis Software (free, open source, Link)

Canvas
The course will utilize Canvas (canvas.gatech.edu) for the distribution of class materials (such as lecture slides or supplemental readings), announcements, and for turning in class assignments. All official class communication will be made available through Canvas, and it is each student's individual responsibility to keep up to date and/or ensure that you receive notifications.

Attendance *(virtually online)*
Students are required to attend the real-time instances of online class at the designated time.

Participation
Students are expected to actively engage in any in-class discussions and activities as needed.

Academic and Research Honesty/Integrity Statement
Georgia Tech aims to cultivate a community based on trust, academic integrity, and honor. Students are expected to act according to the highest ethical standards. Review the Student Code of Conduct and the Academic Honor Code, especially Appendix A: Graduate Addendum to the Academic Honor Code.

Students are expected to perform research in an ethical and responsible manner. All Doctoral and Master's Thesis students are required to take the Responsible Conduct of Research training, and it is expected that students abide by the principles taught in that training while performing research.

Any student suspected of cheating or plagiarizing on a quiz, exam, or assignment will be reported to the Office of Student Integrity, who will investigate the incident and identify the appropriate penalty for violations.

Allegations of scientific or scholarly misconduct are handled in accordance with the procedures outlined by the Policy for Responding to Allegations of Scientific or Other Scholarly Misconduct.

Student-Faculty Expectations
At Georgia Tech, we believe that it is important to strive for an atmosphere of mutual respect, acknowledgement, and responsibility between faculty members and the student body. The Student-Faculty Expectations articulates some basic expectations that you can have of me and that I have of you. Additional information for research-related work is given in The Expectations of Advisors and Advisees. In the end, simple respect for knowledge, hard work, and cordial interactions will help build the environment we seek. Therefore, I encourage you to remain committed to the ideals of Georgia Tech while in this class.

Accommodations for Students with Disabilities
If you are a student with learning needs that require special accommodation, contact the Office of Disability Services as soon as possible to make an appointment to discuss your special needs and to obtain an accommodations letter. Please also e-mail me as soon as possible in order to set up a time to discuss your learning needs.