

PSYC 6023 (4 credits)
Research Methods for HCI
Dr. Carrie Bruce
Fall 2026

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Office Hours: Slack message or email to make an appointment

Class Days and Times: T/Th 11-12:15 Scheller 300; F 12:30-2:10 Scheller 101

TAs:

Course Description

How do you know what a user wants on a wearable display, whether an app feature is being used, whether a clickable button is better than a swipe, or whether a person who is blind can use your website? Research methods for HCI allow you to investigate such questions and develop evidence to inform design decisions. In this course, you will learn about common methods employed in user-centered and evidence-based design. You will also learn how to choose methods, plan studies, and perform research that is inclusive of users with a range of abilities. The objective of this course is to train you to use the appropriate methods, tools, metrics, and analyses for generating evidence to inform and reflect on design decisions. In this course, you will also be expected to increase your awareness, understanding, and application of inclusive research practices.

Learning Objectives

Learning in this course will occur through lectures, structured discussions, readings, in class and out of class activities, and assignments. You are expected to prepare yourself to contribute to discussions and effectively engage in course activities.

At the end of this course, you should be able to:

- Appraise a research context and develop a focused problem space

- Conduct common user research methods and articulate their advantages and disadvantages
- Select and apply appropriate data treatment techniques to examine data
- Interpret research findings to synthesize and inform design decisions
- Document and communicate research findings to demonstrate the evidence-based process

Suggested Books and Additional Reading Materials

1. Baxter, K., Courage, C., & Caine, K. (2015). *Understanding Your Users: A Practical Guide to User Research Methods* (Second Edition). Waltham, MA: Morgan Kaufmann/Elsevier.
2. Tullis, T. & Albert, B. (2022). *Measuring the User Experience: Collecting, Analyzing, and Presenting Usability Metrics* (Third Edition). Cambridge, MA: Morgan Kaufmann/Elsevier. Note: Published in 2022 but Copyright in 2023. - Download free copy from Science Direct (with Georgia Tech login):

<https://www.sciencedirect.com/book/9780128180808/measuring-the-user-experience>. Links to an external site.

3. Goodman, E., Kuniavski, M., & Moed, A. (2012). *Observing the User Experience* (Second Edition). Waltham, MA: Morgan Kaufmann/Elsevier.
4. Lazar, J., Feng, J., & Hochheiser, H. (2017). *Research Methods in Human Computer Interaction* (Second Edition). Cambridge, MA: Morgan Kaufmann/Elsevier. Download free copy from Science Direct (with Georgia Tech login):

<https://www.sciencedirect.com/book/9780128053904/research-methods-in-human-computer-interaction>. Links to an external site.

Additional readings, typically research articles and book chapters, may be added during the semester. Email, Canvas, and Slack announcements will be sent out when these are assigned. Students will be responsible for obtaining and reading all materials before the class in which they are to be discussed. Demos and examples may also be made available via Canvas.

Accommodations Policy

If you are a student with a disability and you need academic accommodations, please see me and contact the Office of Disability Services (404-894-2563) [http://disabilityservices.gatech.edu/Links to an external site.](http://disabilityservices.gatech.edu/Links%20to%20an%20external%20site) . All academic accommodations must be arranged through that office. They will then contact me with instructions.

Student-Faculty Expectations Agreement

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 articulate some basic expectations that you can have of me and that I have of you. 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.

Student Well-Being:

At Georgia Tech, we are concerned about your overall physical, social, and mental well-being. A comprehensive list of wellness related resources has been compiled and maintained by the Office of the Vice President for Student Engagement and Well-being (student-resource-guide (gatech.edu))

Attendance

Attendance and punctuality are required for this course. We will keep track of attendance, and you will be allowed two **unexcused absences** that will not result in points deducted from your final grade. For each additional unexcused absence, you will lose a letter grade towards your final grade.

Excused = sickness or a circumstance that was out of your control (e.g., bus broke down, flight was cancelled), you must notify Dr. Bruce to have your absence reviewed and determine how to complete the class activities. Do not abuse this policy - don't pretend to be sick to avoid having an unexcused absence. You will be asked to show documentation for multiple illnesses and other circumstances like flight cancellations. **If you are sick or**

need to quarantine, you should notify Dr. Bruce to have your absence reviewed and determine how to complete the class activities.

Unexcused = it was a personal choice to miss class - you scheduled a meeting, made travel arrangements that will make you leave early or get back too late, you overslept, etc. This includes being absent for a portion of a class or the entire class period.

DO NOT plan to leave campus early for Winter Break, you are expected to attend classes **in-person** until the final class day. We will have in-person classes the week after Thanksgiving and we have a required, in-person final presentation scheduled during the allotted exam day/time. Plus, you will continue to work on your team projects until the formal end of the semester, and these team projects work best when all members are available for in-person meetings.

Multiple instances of tardiness could also result in loss of letter grade - 3 tardies will equate to 1 unexcused absence. Tardiness occurs if you are more than 10 minutes late for the start of class. If there is a need to miss class or be tardy because of a planned project activity for this course, you are required to have permission from Dr. Bruce.

Assessment of Learning

Engagement	10%
Quizzes	20%
Team Project	70%

At Georgia Tech, final course grades are awarded on a scale of A-F with no +/- grades permitted. 90-100= A; 80-89= B; 70-79= C; 60-69= D; below 60= F. **You must receive an A or B grade to pass this course as required by the MS-HCI Program.**

Expected Workload

This course is worth 4 credits (3 lecture + 1 studio) that includes hours spent on class time and outside homework and meetings. A lecture credit includes 1 hour of class time and 2 hours outside of class. So, 3 credits of lecture results in 3 class hours and 6 outside hours. Additionally, one studio credit equals 2 hours of class time and 1 hour outside of class. In

total, this course will spend 4-5 hours of class time and 7-8 hours outside of class per week.

Engagement

Engagement is expected. You should come to classes prepared and ready to engage in class activities. You should be ready to discuss and apply material covered in the lectures, readings, team project activities, etc.

A total of 10% of your grade will be based on an engagement rating determined by the following:

- Attendance and punctuality
- You will be responsible for keeping track of the ways in which you have contributed to in-class discussions and activities, and towards your team project -- Contribution Summaries will be due at each deliverable.
- Understanding what is going on for your team project and being able to communicate this. We will have activities during the semester through which you will be responsible for giving an update on your team project.
- Instructors' and TAs' observations and interactions with you during classes
- The feedback you provide to other teams

Quizzes

There will be 2 hand-written in-class quizzes assigned for individual completion (not a partner or group effort). Quizzes will serve to assess your knowledge about course topics and ability to justify the application of a method or approach to research. These will contribute 20% towards your course grade.

Team Project

You will engage in a semester-long team project. Teams will work on a research-focused project that results in portfolio-ready artifacts. Teamwork means working together to complete specified in-class and out-of-class activities, and graded assignments. Be a good team member -- you should have equitable membership in your team. This means taking on a workload that is clearly similar to your team members' workload, being knowledgeable

about your team activities and plans, going to team meetings, etc. The project will contribute 70% of your course grade.

There are **4 associated deliverables** – 2 that will be submitted as a team and 2 that will require individual work and submitted by each team member. For the team submissions: one of these will be given a team grade and the other will have team and individual graded components. For the individual submissions: each person will be graded on their own work and receive an individual grade. The value breakdown is: R1 – 5% (team); R2 – 20% (individual); R3 – 20% (individual); and R4 – 15% (team+individual). The final 10% will be based on assessment of your contributions to the project (informed by feedback from teammates, TAs, and external advisors).

Industry Experts

This course will leverage the expertise and experience of industry professionals (and other practitioners) to connect class content with the day-to-day research-related activities that can occur in many HCI/UX-related jobs. These professionals will bring real-world perspectives and case examples through lectures and activities. Engaging with professionals in class is also an opportunity for students to learn about a variety of workplace cultures and practices and better understand the role of research in these workplaces.

Academic Integrity

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 Georgia Tech's Honor Code and the student Code of Conduct.

Any student suspected of cheating or plagiarism 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.

All students are assumed to have read the Honor Code and consented to be bound by it. Violations of the Honor Code are taken extremely seriously and will result in a failing grade for the course and referral to the Dean of Students for further action. Specific violations include (but are not limited to):

- Use or provision of prohibited assistance during quizzes or exams.

- Student-student sharing of outside assignments such as questionnaires and research reports.
- This includes both the use of words and ideas without attribution.
- Use of AI to solely or in large part produce work that you present as your own.
- Use of AI in a manner that violates the policy specific to the assignment, assessment, or other work instructions.

Policy on Use of Generative AI for class work

In this class, we treat AI-based assistance, such as ChatGPT, Claude, Copilot, etc. the same way we treat collaboration with other people: for both individual and team-based assignments, you might be welcome to talk about your ideas and work with other people, both inside and outside the class, as well as with AI-based assistants.

However, all work you submit **must be your own**. You should never include in your assignment anything that was not written or produced directly by you without proper citation (including quotation marks and in-line citation for direct quotes). Including anything you did not write or produce in your assignment without proper citation will be treated as an academic misconduct case. If you are unsure where the line is between collaborating with AI and copying AI, we recommend the following heuristics:

Heuristic 1: *Never hit "Copy" within your conversation with an AI assistant. You can copy your own work into your own conversation, but do not copy anything from the AI conversation or other AI workspace back into your assignment.*

Instead, use your interaction with the AI assistant as a learning experience, then let your assignment reflect your improved understanding.

Heuristic 2: *Do not have your assignment and the AI agent open at the same time. Similar to the above, use your conversation with the AI as a learning experience, then close the interaction down, open your assignment, and let your assignment reflect your revised knowledge.*

This heuristic includes avoiding using AI directly integrated into your composition environment: just as you should not let a classmate write content, design work, or code directly into your submission, so also you should avoid using tools that directly add content to your submission.

Deviating from these heuristics does not automatically qualify as academic misconduct; however, following these heuristics essentially guarantees your collaboration will not cross the line into misconduct.