**Qualitative Methods for HCI – CS 6454/4690**

**Course Description:** Increasingly, the design of computer software calls for an understanding of the social and cultural contexts of end-users. This raises questions. How do we understand the social and cultural needs of our users? This course is to help you answer that question by learning about empirical methods that will help you to identify important social and cultural contexts of end-users.

**Learning Objectives:** The semester is roughly divided in half - In the first half of the semester the goal is for students to learn fundamentals of a variety of qualitative methods that can be used in the design of human computer interfaces. Students will become familiar with data collection methods such as observations, interviews, participatory design, probes, and other design research methods. Students will become familiar with analysis methods including grounded theory, qualitative/quantitative coding and inter-rater reliability, and interpreting artifacts. Students will also learn the risk that research with human subject poses and how to consider those risk when designing a study.

In the second half of the semester students will learn several techniques for research methods used in industry based upon Rapid Contextual Design (RCD). While these RCD methods we will be learning can be used in a prescriptive manner, our approach will be to learn these methods and explore how they can be adapted to new situations and needs.

**IRB certification:** All students are required to complete the social and behavioral track of IRB certification (see required training here <http://researchintegrity.gatech.edu/about-irb/)>.  
  
**Resources:** There will be a variety of text in the Canvas resources and we will be using the following books, which are available electronically through the library or other sites.

* Ways of Knowing in HCI, Judith S. Olson and Wendy A. Kellogg Editors. Springer, 2014.
* Interviewing as Qualitative Research by IE Seidman, (PDF on Research Gate)
* Rapid Contextual Design: A How-To Guide to Key Techniques for User-Centered Design. Holtzblatt, Wendell and Wood (2005) Morgan-Kaufmann.

**Grading:**

* Practice Method Assignments 60%
  + IRB CITI certification – 1pt
  + 6 other assignments 100 pts each
* Final Project 20% (group assignment – undergrad and grad are not grouped together if possible)
* Class Participation 20%

*Practice Method Assignments*

1. IRB Training and certification
2. Observations (Undergraduates will conduct 1 observation session; grad students will conduct 2)
3. Interview with Classmate
4. Grounded Theory with Observation Notes
5. Interrater Reliability
6. Participatory Design Activity
7. Design Research Analysis

*Final Project*

1. In class presentation
2. Design research proposal
3. Interview transcripts (Undergrad teams will conduct 2 interviews; grad teams will conduct 4)
4. Final Paper (A higher standard for the quality of communication and analysis are expected from graduate teams and final papers will be graded accordingly.)

*Participation*

1. Attendance – see *Excused Absences Policy* below
2. Discussion Starters - Before class starts each day students are invited to write a quote, question or idea on the board inspired the reading, video or the previous class discussion. These will be used to start the class discussion each day. Each student will be expected to contribute discussion starters 5 times.

**Topic and Reading guide:** Readings are assigned on canvas. There is nothing to turn in for these assignments but you are expected to read the assigned reading before class for the day it is assigned.

1. Qualitative Research Ethics and Human Subject Research

R1. Bruckman, Research Ethics in HCI, Ways of Knowing in HCI.

R2. CITI Training

1. Ethnography (Observation and Interview Methods)

R3. Dourish, Reading and Interpreting Ethnography, Ways of Knowing in HCI,

R4. Sample Ethnography 1 - Best, A. 2006 Race-Ing Men: Boys, Risk and the Politics of Race

R5. Interviewing as Qualitative Research by IE Seidman, chapters 1, 4, & 6

R6. Sample Ethnography 2 - Creating a Creators’ Market: How Ethnography Gave Intel a New Perspective On Digital Content Creators, https://www.epicpeople.org/creators-market-ethnography-gave-intel-new-perspective-digital-content-creators/

1. Analysis of Qualitative Research

R7. Coding Qualitative Research - [Saldaña, J. The coding Manual for Qualitative Research](http://www.sagepub.com/upm-data/24614_01_Saldana_Ch_01.pdf" \t "_blank)

R8. Grounded Theory (video and short reading) – (1) Watch this video for an overview of Grounded Theory, <https://www.coursera.org/learn/qualitative-methods/lecture/7CnRp/5-5-grounded-theory>, (2) Read example of open coding on this blog, <https://prpost.wordpress.com/2013/07/22/an-example-of-how-to-perform-open-coding-axial-coding-and-selective-coding> (3) Additional reading for those interested in more academic research-oriented approach see: Strauss, A., & Corbin, J. M. (1990). Basics of qualitative research: Grounded theory procedures and techniques.

R9. Sample Study for Analysis - Palmquist and Crowley, From Teachers to Testers: How Parents Talk to Novice and Expert Children in a Natural History Museum

1. Participatory Research and Research Through Design

R10. Action Research – Hayes, Ways of Knowing in HCI, Knowing by Doing Action Research as an Approach to HCI

R11. Research Through Design - Zimmerman and Forlizzi, Ways of Knowing in HCI, Research Through Design,

R13. Participatory Design - Robertson and Simonsen, Participatory Design - Chapter 1 and 7 of the Routledge International Handbook of Participatory Design, 2012.

R12. Diary Studies / Probes – (1) Gaver, Cultural Probes (2) DiSalvo and Roshan Khanipour, Medium Probes

1. Final Project Overview

R14. IRB Protocol for Final Project

1. Rapid Contextual Design

R15. Rapid Contextual Design Ch 3 & 4 - Contextual and Interviews

R16. Rapid Contextual Design Ch 5 - Contextual Interviews Interpretation

R17. Rapid Contextual Design Ch 6 & 7 - Working and Consolidated Sequence Models

R18. Rapid Contextual Design Ch 8 - Affinity Diagrams

R19. Rapid Contextual Design Ch 9 - Personas

R20. Rapid Contextual Design Ch 13 and 14 - Paper Prototypes

**Assignment guide:**Please use assignments in Canvas for final due dates and instructions – if there is a conflict between the schedule and an assignment the Canvas assignment is correct and should be followed.

Suggested assignment lengths are approximate. Some people will do a good job in fewer and some will require many more pages. Please don't play games with the margins or fonts to try to make it come out a certain length--no one is counting. Don't worry about the page count--just make sure that you've completed the assignment well.

**Late Policy:** Each student may have a total of five late days over the course of the semester. Once you've used those up, work will not be accepted. Your final presentations may not be late and you must attend to get credit for that 20% of your grade.

**Excused Absences Policy:** For institute rule on excuse absences see: <http://www.catalog.gatech.edu/rules/4/>

For this class you are expected to attend and attendance will be taken in form of documents you turn in as part of in-class activities. You may have up to three absence over the course of the semester. If you miss more than three classes you will be expected to provide documents that explain all of your absences as excused, or be deducted one course grade per unexcused absence (i.e. an A- will be reduced to a B+). If you are late to class more than five times your course grade will be deducted one grade per class time you are late. If you will be missing course for institute approved activities or late for class because of a conflict, please notify the instructor at the beginning of the semester.

**Academic Integrity and Honor Code:** This class abides by the Georgia Tech Honor Code: http://www.honor.gatech.edu/plugins/content/index.php?id=9. Please read the Code and contact the instructor or the TA if you have any further questions.

**Learning Accommodations:** If you have any accommodations you need to inform us during the first week of classes, and provide us with the detailed accommodation approval letter from the GT Office of Disability Services. We need to confirm during the first week of classes (by the first Friday at 4pm) that we can accommodate your requests. If you don’t get approval from us by the first Friday at 4pm then we cannot accommodate your requests