

## CS 889 Experimental Design in HCI

This course explores the design of experiments to answer research questions in HCI. The focus is not on any one experimental method, but instead to explore the design of experiments based on the specific research question being proposed.

### Course Structure

The course will include approximately three weeks of lectures which represent the content of the course. The lecture content is presented rapidly, on the order of six hours of content per week, representing half of the contact time of the course.

A schedule of content topics for classroom lectures is as follows:

May:

|         |   |
|---------|---|
| 3 Hours | Course Into, Requirements                   |
| 6 Hours | Quantitative Methods (Slides plus readings) |
| 6 Hours | Qualitative Methods (Slides plus readings)  |
| 3 Hours | Ethics of human subjects research           |
| 3 Hours | Approaches to zero contact research.        |

June:

|              |   |
|--------------|---|
| June 1 – 21  | Project Refinement                          |
| June 21 – 30 | Paper Presentations (Synchronous Component) |

July:

|              |                                      |
|--------------|--------------------------------------|
| July 1 – 8   | Project Presentation 1               |
| July 20 - 31 | Project Presentation 2               |
| July 31      | Project Write-Up (SIGCHI format) due |

Resources, slides, videos and readings will be posted on the course website, located here:

<https://cs.uwaterloo.ca/~lank/CS889/s20/index.html>

Course discussion will take place on Piazza and is structured to foster asynchronous interaction. At the deadline for readings, students are expected to provide a “precis” of approximately five sentences the paper which includes:

- The research question.
- A summary of results.
- Strengths and weaknesses of the paper.
- An assessment of the overall importance of the paper to the field.

## Grading

Course grading includes the following components:

|   |     |
|---|-----|
| Readings and Discussion Participation               | 15% |
| TCP2 Tutorial                                       | 5%  |
| Paper presentation and review (individual readings) | 20% |
| Project: Experimental Design                        | 20% |
| Project: Data Collection and Analysis               | 20% |
| Project: Final Write-Up                             | 20% |

-