**Course Project:**

The project for this course follows the human-interaction lifecycle to properly design and create a prototype product and test the prototype on stakeholders. Students work in teams of 3 or 4 chosen by the instructor. The student is expected to practice the user-centered design concepts learned in class, to follow the lifecycle and practice each stage along the way, and to see that even the best design from their perspective will not be the best design for all users.

**Part 1: Needs and Requirements**

The team will apply several data gathering techniques (questionnaires, interviews, direct and indirect observation) to begin to discover the needs and requirements for the chosen product. These techniques cover both quantitative and qualitative data. They will analyze and interpret the data collected using techniques covered in class to pull out additional requirements for the product.

With the requirements they will create use cases and essential use cases and perform a hierarchical task analysis to begin to capture the users’ interaction with the product. Anything gained from this step can be used to add to or refine the product requirements.

The final list of requirements is formatted using the Volere template or equivalent. (30 points)

**Part 2: Low Fidelity Prototype**

From the needs and requirements, the team will create designs for the product and evaluate to choose a design and produce a prototype. The team will produce a paper prototype of their design.

Following IRB protocols learned in a previous assignment, the team will perform usability tests on several stakeholders. Results are used to update the design and then to perform usability tests on an additional set of stakeholders to look for improvements or potential problems with the redesign. The team will write up an experience paper on the project and what changes were needed. (40 points)

**Part 3: Heuristic Evaluation and Portfolio Updates**

Students in Human-Computer Interaction (HCI) are placed on teams and paired up with a team from the Software Engineering (SE) course. The SE teams have created and built an Android phone app which the HCI students will evaluate by doing a Heuristic Evaluation, using their expertise to form a list of positive and constructive recommendations for the SE teams.

Once completed, the students will individually write a reflection on the project, the goals, and the interaction they experienced in their various roles with the team and with various stakeholders to sum up their experiences in the course. They will be asked to respond to the prompts required of a Social Inquiry course and update their online portfolios with this reflection and any other documents created as part of the project or from any assignment in the course that they feel reinforces what they have experienced and supports their portfolio submission. (30 points)

**Common portfolio contributions:**

The following requirements can be met in either one or two portfolio contributions at the instructor’s discretion:

* Ask students to synthesize and apply research to analyze human behavior, social organization, or social institutions and consider how this research relates to public practices, policies, *or* popular media. This project must be submitted to demonstrate effective communication through written and/or oral expression.
* Ask students to reflect on how social processes influence understanding of self, interactions with others, *or* access to power and resources. This project must be submitted to demonstrate effective communication through written and/or oral expression. These may include written papers, recorded oral presentations, podcasts, etc.