CT318 HCI Group Design Project 2023-2024:

Design Project Brief:

Identify a problem in the *Health (physical / mental)* / *Security* space that you would like to solve, thus improving the quality of life for the people using it. Your solution will involve an interactive software component that will be iteratively designed and tested before a final user evaluation.

Examples:

*Physical / Mental **Health**: monitoring, diagnosing, supporting, treating etc.*

*Digital / Physical **Security**: monitoring, automating, predicting, preventing etc.*

- For this project, you will first study the problem, identifying the real people and issues involved to ensure you identify the fundamental cause and needs to be addressed
  Output: maps, user stories, personas etc.
- Next, you will use the above observations and analyses to inform potential solutions: brainstorming and experimenting with possible alternatives in an iterative observation/ideation/protoyping/testing cycle before selecting the "best" alternative to progress to the next implementation phase.
  Output: mindmaps, conceptual models, wireframes etc.
- Implementation of an interactive prototype (using interactive prototyping software or front end programming environments).
  Output: Interactive software prototype
- Evaluation of the interactive prototype by users, and individual reflection on the group project process.
  Output: Evaluation report

"The end product is intended to enhance the quality of life of the people who will use it."

- **It does not rush to a solution**.
- **It is evidence-based**
- **It is action-oriented**

Donald Norman "The Future of Design: When you come to a fork in the road: Take it.":

Design Project Deliverables:

- **Design Documentation**: design diagrams (users, user needs, concepts, alternative prototype designs) and supporting explanations.
    - *Format*: Miro design board, pdf report
- **Interactive Prototype**:
    - *Format*: weblink to interactive software prototype
- **Evaluation** report:
    - *Format*: pdf report / video

Design Project Process:

- Problem **Defining**:
    - Select / identify "problem" (***Empathise : Week 4***)
    - Define problem / user need (***Define: Week 5***)

- Problem **Solving**:
    - Brainstorm solutions / "How might we?" (***Ideate: Week 6***)
    - Prototype / create different solutions (***Prototype: Weeks 7-9***)
    - Test / evaluate and refine solutions (***Test: Week 10***)

Design Project Evaluation: (See grading rubric below)

- Problem Definition: User & User Needs Research [10 Marks]
- Problem Solution: Design alternatives & Prototype [10 Marks]
- Evaluation / Individual Reflection [5 Marks]

CT318 HCI Projects: Descriptive Grading Rubric

Grade	Defining Users	Defining User Needs	Ideating (HMW): Conceptual Design Alternatives	Interactive Prototype	Evaluation
A+: 85+	Innovative, in-depth representation of users	Innovative, in-depth representation of user needs	Innovative, in-depth HMW and Design alternatives presented	Innovative, in-depth interactive prototype design delivered	Innovative, in-depth evaluation presented
A: 70-84	Excellent, empathic representation of users	Excellent, empathic representation of user needs	Excellent, well considered HMW and Design alternatives presented	Excellent, well considered interactive prototype: design and delivery	Excellent, well considered design and user evaluations
B: 60-69	Clearly identifies and effectively represents users	Clearly identifies and effectively represents user needs	Good HMW and Design alternatives presented	Strong interactive prototype design and delivery	Thorough evaluation of designs inc. users
C: 50-59	Identification and basic representation of users	Identification and basic representation of user needs	Adequate delivery of both HMW and Design alternatives	Delivery of working interactive prototype; poor design evidence provided	Adequate evaluation undertaken and documented
D: 40-49	Basic identification of users	Basic identification of user needs	Basic attempt at HMW or Design alternatives	Basic prototype delivered: poor design or interaction	Basic evaluation of prototype (no users)
Fail: <40	Failure to identify or characterise users	Failure to identify or characterise user needs	Failure to consider different approaches to solution	Failure to develop and document final interactive prototype design	Failure to evaluate design during development and evaluate design with users