

Human Computer Interaction (HCI) 2023-2024

CT318: 3BCT (BSc.CS&IT)/ Final Year B.A. IT / 4BS2



Module Code: CT318
Lecture Hours: 24

Credits: 5
Lecturer: Karen Young

Module Aims and Topics Covered

This module is an introductory Human Computer Interaction course. It is concerned with the design of effective interactions between people and computers. It is intended to give insight and experience in key issues of HCI design. Students will complete the course with a greater understanding of the criticality of **design** to the successful development of computer systems. The module will equip students with the knowledge and skills required to identify user needs and design appropriate solutions, creating effective user experiences with technology. The following topics are covered in this module:

- Design
- HCI, UX, Interaction Design
- Design Process
- Design Thinking: Empathise, Define, Ideate, Prototype and Test
- User Research
- Conceptual and Physical Design
- Prototyping
- Evaluation

Course Assignments:

- Quizzes (5) [5 Marks]
- Group Project: [25 Marks]
 - Problem Definition: User Needs [10 Marks]
 - Problem Solution: Prototype [10 Marks]
 - Evaluation [5 Marks]
- Examination [70 Marks]

Module Learning Outcomes:

Upon completion of this module, the student will be able to:

1. Elaborate the importance of design in professional and social contexts
2. Identify the optimal roles of human agents and those of digital agents in any human computer interaction
3. Elaborate and explain stages of the Design Thinking Model
4. Identify users and user needs
5. Distinguish between conceptual and physical design
6. Generate alternative designs (prototypes)
7. Design interactive system prototypes
8. Design positive user experiences
9. Evaluate interactive system prototypes and real world systems

Course Outline:

Week 1:	Course Overview: Introduction to HCI
MODULE 1:	DESIGN
Week 2:	Design: HCI, UX. Good Design?
MODULE 2:	DESIGN PROCESS
Week 3:	Interaction Design (ID), User Centred Design (UCD), <i>Design Thinking (DT)</i>
MODULE 3:	PROBLEM DEFINITION
Week 4:	DT 1: Empathise: User Research
Week 5:	DT 2: Define: User Needs / Requirements
MODULE 4:	SOLUTION DESIGN
Week 6:	DT 3: Ideate: Conceptual Design
Weeks 7-9:	DT 4: Prototyping: Physical Design
MODULE 5:	EVALUATION
Week 10:	DT: Evaluate
MODULE 6:	FUTURE HCI
Week 11:	Future Interaction Developments: IOT, AR/VR, AI
Week 12:	Review

Academic Integrity:

The copying, including or directly quoting from the work of another without adequate acknowledgement in order to obtain benefit or credit, **plagiarism** is an academic offence and taken very seriously at University of Galway. Plagiarism can arise through poor academic practice or ignorance of accepted norms and each student should ensure they are familiar with good academic practice in this regard.

Self-plagiarism is where a student re-uses work previously submitted to another course within the University or in another institution.

Each student should familiarise themselves with the following University of Galway resources on Academic Integrity at the following sources:

- A guide to maintaining academic integrity, including information on plagiarism, citation and referencing:
<https://libguides.library.universityofgalway.ie/AcademicIntegrity>
- Plagiarism at University of Galway: This page refers to NUI Galway's policies and procedures on plagiarism, as well as resources to help avoid plagiarism.
<https://libguides.library.universityofgalway.ie/c.php?g=653961&p=4591733>
- Plagiarism and Citation: Referencing and Citation
<https://libguides.library.universityofgalway.ie/AcademicIntegrity/Referencing/Citation>
- QA220 Appendix 1: Outcomes for Student Breach of Academic Integrity
<https://www.universityofgalway.ie/media/registrar/docs/Appendix-1-Academic-Integrity-Policy-Final.pdf>

