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Module specification

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Module Code	CONL728
Module Title	Human Computer Interaction
Level	7
Credit value	15
Faculty	FACE
HECoS Code	100736
Cost Code	GACP

Programmes in which module to be offered.

Programme title	Is the module core or option for this programme
MSc Computer Science with UX	Core

Pre-requisites

None

Breakdown of module hours

Learning and teaching hours	15 hrs
Placement tutor support	0 hrs
Supervised learning e.g. practical classes, workshops	0 hrs
Project supervision (level 6 projects and dissertation modules only)	0 hrs
Total active learning and teaching hours	**15** hrs
Placement / work based learning	0 hrs
Guided independent study	135 hrs
Module duration (total hours)	150 hrs

For office use only	
Initial approval date	27/06/2024
With effect from date	Sept 2024
Date and details of revision	
Version number	1

Module aims.

This module aims to provide students with a deep theoretical understanding of human-computer interaction (HCI), exploring the psychological, cognitive, and socio-technical

aspects that underpin the design and evaluation of computer systems. Through a combination of foundational literature, theoretical frameworks, and critical analysis, students will delve into the intricacies of how humans perceive, interact with, and are influenced by technology. Topics covered include usability interface design models, technology interaction, and user experience theories. By examining real-world applications and case studies, students will gain insights into the complexities of designing interfaces that meet diverse user needs and preferences. Furthermore, the module will foster a critical awareness of ethical considerations, accessibility issues, and the societal impacts of HCI research and practice. Students will develop a comprehensive theoretical foundation that prepares them for advanced study and professional practice in the field of human-computer interaction.

Module Learning Outcomes - at the end of this module, students will be able to:

1	Demonstrate an advanced, systematic understanding of the fundamental principles and theoretical frameworks of Human-Computer Interaction (HCI).
2	Conduct a rigorous examination of scholarly literature of key concepts and applications of HCI.
3	Systematically evaluate the effectiveness of various HCI measurement techniques using advanced methods.
4	Manage and provide detailed justifications for the application of HCI techniques to address complex accessibility, ethical, and societal challenges.
5	Propose and implement innovative solutions to real-world technology issues by applying HCI theories.

Assessment

This section outlines the type of assessment task the student will be expected to complete as part of the module. More details will be made available in the relevant academic year module handbook.

Indicative Assessment Tasks:

Two assessments are required as part of this module. Students will be expected to firstly engage with a case study example and be required to contribute to a virtual discussion board and provide peer feedback. The second assignment builds further on the case study and requires students to develop a written report with relevant scholarly referencing. The report will detail students approaches (with relevant justifications) on how to address the case study from the perspective of usability, accessibility and ethics.

Assessment number	Learning Outcomes to be met	Type of assessment	Weighting (%)
1	1, 4, 5	Coursework	30%
2	1, 2, 3, 4, 5	Coursework	70%

Derogations

None

Learning and Teaching Strategies

The overall learning and teaching strategy is one of guided independent study requiring ongoing student engagement. Online material will provide the foundation of the learning resources, requiring the students to log in and engage regularly throughout the eight weeks of the module. There will be a mix of suggested readings, discussions and interactive content containing embedded digital media and self-checks for students to complete as they work through the material and undertake the assessment tasks. A range of digital tools via the virtual learning environment and additional sources of reading will also be utilised to accommodate learning styles. There is access to a helpline for additional support and chat facilities through Canvas for messaging and responding.

Indicative Syllabus Outline

- Introduction into HCI
- Usability & Accessibility
- Heuristics and guidelines
- Multidisciplinary approach
- CHI / HRI
- HCI Principles, applications and methodologies
- Learnability, flexibility and robustness

Indicative Bibliography:

Please note the essential reads and other indicative reading are subject to annual review and update.

Essential Reads

H. Sharp, Y. Rogers, and J. Preece, *Interaction Design: Beyond Human-Computer Interaction*, 6th ed. New York, NY: John Wiley & Sons Inc., 2023.

Other indicative reading

J. Bardzell and S. Bardzell, *Humanistic HCI*. San Rafael, CA: Morgan & Claypool Publishers, 2015. [Online]. Available: https://www.morganclaypool.com/doi/abs/10.2200/S00665ED1V01Y201502HCI028

J. M. Carroll, *HCI Models, Theories, and Frameworks: Toward a Multidisciplinary Science*, 1st ed. San Diego, CA: Elsevier Science, 2003. [Online]. Available: https://www.elsevier.com/books/hci-models-theories-and-frameworks/carroll/978-0-08-051574-0

D. Benyon, *Designing User Experience: A Guide to HCI, UX and Interaction Design*, 4th ed. Harlow, U.K.: Pearson, 2019.