COURSE SPECIFICATION DOCUMENT

Academic Department: Science, Innovation & Technology

Programme: Computer Science

***FHEQ* Level:** 5

Course Title: Human Computer Interaction

Course Code: COMP 5104

Student Engagement Hours: 160
Timetabled Hours: 45
Guided Learning Hours: 15
Independent Learning Hours: 100

Credits: 16 UK CATS credits
8 ECTS credits
4 US credits

Course Description:

This course introduces key concepts, methods, and tools used in Human-Computer Interaction (HCI). Students will explore the design, evaluation, and implementation of user interfaces, focusing on how to create systems that are efficient, usable, and enjoyable for a diverse range of users. By the end of the course, students will have practical experience in user research, UI interface design, prototyping, designing for responsive and adaptive interfaces and usability testing ready for implementation by a programmer.

Prerequisites:

40 credits

Aims and Objectives:

By the end of this course, students will have the skills necessary to take a user-centred approach to designing digital systems. Students will have experience of going through an entire design cycle from concept to an evaluated design ready to be implemented.

Programme Outcomes:

L5: AI, II, BI, II, CI, II, DI, II

A detailed list of the programme outcomes are found in the Programme Specification. This is located at the archive maintained by Registry and found at:
https://www.richmond.ac.uk/programme-and-course-specifications/

Learning Outcomes:

By the end of this course, successful students should be able to:

- Understand and apply core HCI principles and design heuristics.
- Design user interfaces based on user-centred methodologies.
- Prototype and evaluate interactive systems using appropriate tools and techniques.
- Conduct usability tests and integrate user feedback into design iterations.
- Understand accessibility, ethics, and inclusivity in HCI design.

Indicative Content:

- What is Usability?
- Design methodologies
- Understanding users
- Idea generation
- User stories
- Storyboarding
- Wireframing
- Prototyping
- Consumer testing
- Accessibility and Universal Design
- Computer based evaluations
- User-based evaluations

Assessment:

This course conforms to the University Assessment Norms approved at Academic Board and located at: https://www.richmond.ac.uk/university-policies/

Teaching Methodology:

This course will be delivered face to face through a combination of lectures and interactive sessions. In addition to classroom activities, there are guided learning elements that are tutor led and arranged through Blackboard. These activities can be asynchronous online sessions, flipped classrooms, set readings with discussion boards or set guest lectures for example. Set activities are monitored by the instructor to ascertain student engagement. Students are encouraged to prepare for class and to play an active part, to raise questions, following-up ideas and interact with a wide range of provided material.

Indicative Text(s):

Sharp, H. Rogers, Y. and Preece, J. (2023) *Interaction Design: Beyond Human-Computer Interaction* 6th edn. Wiley.

Purchase, H. C. (2012) *Experimental Human-Computer Interaction: A Practical Guide with Visual Examples.* Cambridge: Cambridge University Press.

Journals/Additional Texts

Greever, T. (2020) *Articulating Design Decisions*. 2nd edn. Sebastopol: O'Reilly Media.

Websites

Adobe. Available at: https://www.adobe.com/uk/products/xd.html (Accessed: November 2024).

Digital storytelling. Available at:https://www.storyboardthat.com/ (Accessed: November 2024).

HTML Tutorial. Available at: https://www.w3schools.com/html/ (Accessed: November 2024).

CSS Tutorial. Available at: https://www.w3schools.com/css/default.asp (Accessed: November 2024).

See syllabus for complete reading list.

Change Log for this CSD:

Nature of Change	Date Approved & Approval Body (School or AB)	Change Actioned by Registry Services
First Edition	Nov 2024	