

Liverpool John Moores University

Title: USABILITY ENGINEERING
Status: Definitive
Code: **7114COMP** (121337)
Version Start Date: 01-08-2021

Owning School/Faculty: Computer Science and Mathematics
Teaching School/Faculty: Computer Science and Mathematics

Team	Leader
Andrew Symons	Y

Academic Level: FHEQ7 **Credit Value:** 20 **Total Delivered Hours:** 35
Total Learning Hours: 200 **Private Study:** 165

Delivery Options

Course typically offered: Semester 2

Component	Contact Hours
Lecture	11
Practical	11
Seminar	11

Grading Basis: 50 %

Assessment Details

Category	Short Description	Description	Weighting (%)	Exam Duration
Artefacts	AS1	Group assessment - Development of an interactive system.	40	
Exam	AS2	Examination.	60	2

Aims

To develop an understanding of Usability Engineering as a multi-disciplinary subject, with a special focus on interactivity and usability in computer systems and software development.

To develop a user-focused approach to computer systems design.

To develop an in-depth understanding of Usability Engineering as a multi-

disciplinary subject, with a special focus on interactivity and usability in computer systems and software development.
To introduce students to the latest research in HCI, and its application to new technologies.

Learning Outcomes

After completing the module the student should be able to:

- 1 Develop a systematic and critical approach to the design, development and evaluation of interactive systems
- 2 Construct and critically appraise models of interaction
- 3 Critically appraise evaluation methods
- 4 Develop advanced problem solving skills for usability engineering problems

Learning Outcomes of Assessments

The assessment item list is assessed via the learning outcomes listed:

System development	1	2	3	4
Examination	2	3	4	

Outline Syllabus

What is Usability Engineering?
Development Models for Usability
Formal Modeling for Interaction design
Requirements Engineering for Usability
Approaches to Task Modeling
Heuristic Evaluation and Inspection techniques
Prototyping Interaction
Devices and Interaction Styles
End User Evaluation: Quantitative and Qualitative approaches
Experimental Design
Accessibility and Special Needs
Current advances in interaction engineering

Learning Activities

Lectures, seminars of research topics, self-directed study and use of appropriate tool (s), research into HCI and interrelated disciplines.

Notes

Human Computer Interaction is the key to successful interactive systems development. It involves the bringing together of understandings of human abilities,

and technical understanding of hardware and software technologies. This module aims to bring these different strands together to give the student a set of tools for the building of better interfaces. The group coursework is assessed by peer assessment.