

## Liverpool John Moores University

Title: USABILITY ENGINEERING  
Status: Definitive  
Code: **7062COMP** (120319)  
Version Start Date: 01-08-2018

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

Team	Leader
David England	Y

**Academic Level:** FHEQ7      **Credit Value:** 20      **Total Delivered Hours:** 38  
**Total Learning Hours:** 200      **Private Study:** 162

### Delivery Options

Course typically offered: Semester 2

Component	Contact Hours
Lecture	12
Practical	16
Seminar	8

**Grading Basis:** 40 %

### 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 Demonstrate a systematic and critical approach to the design, development and evaluation of interactive systems.
- 2 Produce and critically discuss models of interaction.
- 3 Demonstrate an advanced awareness of evaluation methods.
- 4 Demonstrate 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			
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.