

## Liverpool John Moores University

Title: HUMAN COMPUTER INTERACTION  
Status: Definitive  
Code: **7011ONLINE** (103118)  
Version Start Date: 01-08-2011

Owning School/Faculty: Computing and Mathematical Sciences  
Teaching School/Faculty: Computing and Mathematical Sciences

Team	Leader
David England	Y

**Academic Level:** FHEQ7      **Credit Value:** 15.00      **Total Delivered Hours:** 24.00  
**Total Learning Hours:** 150      **Private Study:** 126

### Delivery Options

Course typically offered: Runs Twice - S1 & S2

Component	Contact Hours
Lecture	12.000
Tutorial	12.000

**Grading Basis:** 40 %

### Assessment Details

Category	Short Description	Description	Weighting (%)	Exam Duration
Report	AS1	A student-led case study involving analysis, design, prototyping and evaluation of a sample interactive software application.	100.0	

### Aims

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

*To develop a user-centred approach to computer systems design.*

*To develop an in-depth understanding of usability and evaluation, and their impact on 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 Explain the nature of HCI and the support from its constituent disciplines
- 2 Relate human physical and cognitive abilities to system design
- 3 Apply development methods to a significant case study
- 4 Follow the interactive development life cycle in a significant case study
- 5 Demonstrate a systematic and critical approach to the design, development and evaluation of interactive systems

## **Learning Outcomes of Assessments**

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

Case Study                      1    2    3    4    5

## **Outline Syllabus**

*What is HCI?*

*The Human Performance Model in HCI*

*Cognitive and Social Psychology and their impact on HCI.*

*Critical examination of the different styles of user interface.*

*Usability and Evaluation methods.*

*Software Development Methods and tools for HCI*

*Accessibility and Special Needs in Interaction*

*Advances in Interaction Research*

## **Learning Activities**

Self-directed study and use of appropriate tool(s). Research into HCI and interrelated disciplines.

## **References**

<b>Course Material</b>	Book
<b>Author</b>	Preece, Rogers & Sharp
<b>Publishing Year</b>	2002
<b>Title</b>	Interaction Design: Beyond Human-Computer Interaction
<b>Subtitle</b>	
<b>Edition</b>	
<b>Publisher</b>	John Wiley & Sons

<b>ISBN</b>	0471 492787
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<b>Course Material</b>	Book
<b>Author</b>	Dix, A., Finlay, J., Abowd, G. & Beale, R.
<b>Publishing Year</b>	2004
<b>Title</b>	Human Computer Interaction
<b>Subtitle</b>	
<b>Edition</b>	3rd
<b>Publisher</b>	Prentice-Hall
<b>ISBN</b>	0130-461091

<b>Course Material</b>	Book
<b>Author</b>	Shneiderman, B.
<b>Publishing Year</b>	1997
<b>Title</b>	Designing the User Interface: Strategies for Effective Human Computer Interaction
<b>Subtitle</b>	
<b>Edition</b>	3rd
<b>Publisher</b>	Addison Wesley
<b>ISBN</b>	0201694972

<b>Course Material</b>	Book
<b>Author</b>	Carroll, J.
<b>Publishing Year</b>	2002
<b>Title</b>	HCI Models, Theories and Frameworks: Towards a Multidisciplinary Science
<b>Subtitle</b>	
<b>Edition</b>	
<b>Publisher</b>	Morgan Kaufman
<b>ISBN</b>	155860887

<b>Course Material</b>	Book
<b>Author</b>	Mirel, B.
<b>Publishing Year</b>	2003
<b>Title</b>	Interaction Design for Complex Problem Solving :Developing Useful and Useable Software
<b>Subtitle</b>	
<b>Edition</b>	
<b>Publisher</b>	Morgan Kaufman
<b>ISBN</b>	1558608311

<b>Course Material</b>	Journal / Article
<b>Author</b>	
<b>Publishing Year</b>	
<b>Title</b>	Communication of the ACM; ACM Transactions on HCI; Interacting with Computers
<b>Subtitle</b>	

<b>Edition</b>	
<b>Publisher</b>	Conference proceedings from ACM SIGCHI, BCS HCI
<b>ISBN</b>	

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## 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. All online activities are scheduled.