

<b>Module Title</b> <b>Human Computer Interaction</b>  <b>Keywords</b> HCI, Interface, Task and Object Based Design, Usability, Evaluation, Groupware, Multimedia and Hypermedia	Reference	CM4008
	SCQF	SCQF
	Level	10
	SCQF Points	15
	ECTS Points	7.5
	Created	May 2002
	Approved	April 2005
	Amended	September 2012
	Version No.	4

## This Version is No Longer Current

The latest version of this module is available [here](#)

### Prerequisites for Module

Familiarity with object-oriented design and programming techniques.

### Corequisite Modules

None.

### Precluded Modules

None.

### Aims of Module

To provide the student with a knowledge of the conceptual and theoretical aspects of HCI required to support future technological developments and the practical skills currently required to develop interfaces to interactive computer systems.

### Indicative Student Workload

<i>Contact Hours</i>	Full Time
Lectures	12
Tutorials	12
Laboratories	24
Assessment	13

### *Directed Study*

Directed Study	38
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### *Private Study*

Private Study	51
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### Mode of Delivery

Lectures are used to deliver HCI principles, tutorials are used to develop design exercises and computing laboratories and used to implement and evaluate designs and to examine hypermedia-based case studies which are used to exemplify HCI concepts and techniques.

## **Learning Outcomes for Module**

On completion of this module, students are expected to be able to:

1. Critically evaluate the impact of human factors and role of usability in the design of interactive systems.
2. Apply the concepts, principles and models of user-centred design methods to the design of interactive system interfaces.
3. Select appropriate evaluation techniques and undertake a usability evaluation.
4. Analyse the concepts, principles and models of the analytic evaluation and cognitive modelling methods to model and evaluate the design for an interactive system.
5. Specify requirements and techniques for the design of groupware, multimedia and hypermedia systems interfaces.

### **Indicative Module Content**

Human factors, Usability ISO 9241. User classes. Task based design methods. User object based design methods. Dynamic models. Icons and visual design. Dialogue design. Cognitive modelling. Goal based models, Language based models.

## **Assessment Plan**

	Learning Outcomes Assessed
Component 1	1,2,3,4,5
Component 2	1,3,5

Component 2 - Coursework

Component 1 - This is a closed book examination.

### **Indicative Bibliography**

1. RITTER, F.E. BAXTER G.D. AND CHURCHILL, E.F. (2014) Foundations for Designing User-Centred Systems: What System Designers need to know about People. Springer.
2. ROSSON, M-B., and CARROLL, J., 2002. Usability Engineering: Scenario-Based Development of Human-Computer Interaction. Morgan Kaufmann.
3. SAURO, J. AND LEWIS, J.R. (2012) Quantifying the User Experience; Practical Statistics for User Research Morgan Kaufman
4. BENYON, D., 2014. Designing Interactive Systems: A Comprehensive Guide to HCI, UX and Interaction Design. Pearson

Usability evaluation.

Experimental evaluation. CSCW  
systems and groupware.

Interface design for multimedia  
systems and hypermedia  
systems.