

Liverpool John Moores University

Title: HUMAN-MACHINE INTERACTION
Status: Definitive
Code: **7007OCCPSY** (113759)
Version Start Date: 01-08-2011

Owning School/Faculty: Natural Sciences & Psychology
Teaching School/Faculty: Natural Sciences & Psychology

Team	Leader
Andy Tattersall	Y

Academic Level: FHEQ7
Credit Value: 12.00
Total Delivered Hours: 22.00
Total Learning Hours: 120
Private Study: 98

Delivery Options

Course typically offered: Semester 1

Component	Contact Hours
Lecture	16.000
Seminar	4.000
Tutorial	2.000

Grading Basis: 40 %

Assessment Details

Category	Short Description	Description	Weighting (%)	Exam Duration
Report	Rpt	report	100.0	2.00

Aims

1. To enable students to gain specialised knowledge and understanding of the human factors discipline.
2. To enable students to understand how psychologists can influence the design of machine-based systems so that they support the requirements of users and organisations.
3. To enable students to understand, and select appropriately from, the range of methods used to describe and evaluate human-machine systems.

Learning Outcomes

After completing the module the student should be able to:

- 1 Display mastery of the objectives, theoretical underpinnings, methods and approaches of human factors.
- 2 Determine the appropriate uses, in the field of human-machine interaction, of empirical methods, analytical techniques and research findings derived from psychology.
- 3 Critically assess the psychological adequacy of various types of interface technology used in human-machine interaction.

Learning Outcomes of Assessments

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

Report	1	2	3
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Outline Syllabus

Overview of human factors.

The systems approach.

Methods used in human factors research.

Psychological issues relating to interface design.

Input / Output devices.

User models.

Relationship between functionality and usability.

Human error.

Role of Evaluation.

Learning Activities

1. Lectures.
2. Seminar presentations
3. Tutorials.
4. Directed reading.

References

Course Material	Book
Author	Charlton S G & O'Brien T G (Eds)
Publishing Year	2002

Title	Handbook of Human Factors Testing and Evaluation
Subtitle	
Edition	2nd Edition.
Publisher	Lawrence Erlbaum Associates.
ISBN	0805832912

Course Material	Book
Author	Karwowski W (Ed)
Publishing Year	2006
Title	International Encyclopedia of Ergonomics and Human Factors.
Subtitle	
Edition	2nd Edition
Publisher	CRC Press
ISBN	041530430X

Course Material	Book
Author	Meister D & Enderwick T
Publishing Year	2002
Title	Human Factors in System Design, Development and Testing
Subtitle	
Edition	
Publisher	Lawrence Erlbaum Associates.
ISBN	0805832068

Course Material	Book
Author	Noyes J
Publishing Year	2001
Title	Designing for Humans.
Subtitle	
Edition	
Publisher	Psychology Press.
ISBN	0415227224

Notes

This module is based on the BPS knowledge area of Human-Machine Interaction. It considers how psychologists and human factors' specialists can influence the design of human-machine systems so that they become more closely matched to the user's needs and capabilities, whilst remaining safe and effective in operation.