

Module code: MOD002591	Version: 3 Date Amended: 05/Mar/2015
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1. Module Title
Interaction and Usability

2a. Module Leader
Arooj Fatima

2b. School
School of Computing and Information Sciences

2c. Faculty
Faculty of Science and Engineering

3a. Level
5

3b. Module Type
Standard (fine graded)

4a. Credits
15

4b. Study Hours
150

5. Restrictions			
Type	Module Code	Module Name	Condition
Pre-requisites:	None		
Co-requisites:	None		
Exclusions:	None		
Courses to which this module is restricted:	None		

LEARNING, TEACHING AND ASSESSMENT INFORMATION

6a. Module Description

Developing effective human-computer interfaces is a vital yet poorly understood area. As such it is necessary to have some understanding of a variety of fields including cognitive psychology and usability theory which has recently become a major issue in web design / effective e-commerce implementation. The user experience (beyond traditional usability) is a key design issue, where the importance of the perceptions and experience of the user is considered. This module seeks to develop understanding of interaction design through the delivery of core theory which is then applied to the analysis, design, implementation and evaluation of a limited functionality horizontal prototype. The student will be introduced to the notion of user mental models (following the approach of Donald Norman) and the extent to which they can be utilized in the design of conceptual models underlying the designed interface. Students will then examine the range of discovery methods used to harvest user, task and environmental data to support user needs analysis comprising user characterisation (including the notion of user personae), task analysis (hierarchical task analysis / action and object taxonomies) and environmental analysis. Following a discussion of visual style / aesthetics, the preceding analysis will then progress to documented design rationale supporting by logical storyboards showing information, action and navigation screen components. The design is then prototyped in an appropriate high level interface prototyping tool and subjected to critical introspective and user evaluation. Note that ideally students will be expected to possess some scripting experience prior to starting the module. Students will document all the above to produce the final assignment. The module would be of considerable benefit to those who intend to design interfaces (including web design), become usability / testing consultants or work within user training / user support roles. Specialist resources required for this module are prototyping and access to the safari online text (Badre A (2002) Shaping Web Usability - Interaction Design in Context Addison-Wesley).

6b. Outline Content

- Interaction design and the traditional software lifecycle
- Role of mental and conceptual models in user centred design
- Relevant issues from cognitive psychology and usability theory
- Discovery methods to support user needs analysis
- User needs analysis
- Conceptualising the problem space, including identification of the interaction style
- Logical storyboarding and design
- Discussion of visual style, aesthetics and user experience
- Implementation and evaluation of at least one limited functionality prototype

6c. Key Texts/Literature

The reading list to support this module is available at: <http://readinglists.anglia.ac.uk/modules/mod002591>

6d. Specialist Learning Resources

An appropriate interface prototyping tool.
Badre A (2002) Shaping Web Usability - Interaction Design in Context Addison-Wesley / Safari books online

7. Learning Outcomes (threshold standards)		
No.	Type	On successful completion of this module the student will be expected to be able to:
1	Knowledge and Understanding	Define and apply relevant theory to the process of determining a user needs analysis for a specific target application.
2	Intellectual, practical, affective and transferrable skills	Design a corresponding interface for target application, justifying design decisions in terms of the preceding user needs analysis, usability and psychological theory.
3	Intellectual, practical, affective and transferrable skills	Implement a limited functionality interface.
4	Intellectual, practical, affective and transferrable skills	Critically evaluate the design prototype, including introspective evaluation and user evaluation.

8a. Module Occurrence to which this MDF Refers				
Year	Occurrence	Period	Location	Mode of Delivery
2018/9	ZZF	Template For Face To Face Learning Delivery		Face to Face

8b. Learning Activities for the above Module Occurrence			
Learning Activities	Hours	Learning Outcomes	Details of Duration, frequency and other comments
Lectures	12	1,2,3,4	36 hours, 12x1 hr lectures, 24x1 hr tutorials weeks 1-12
Other teacher managed learning	24	1,2,3,4	36 hours, 12x1 hr lectures, 24x1 hr tutorials weeks 1-12
Student managed learning	114	1,2,3,4	114 hrs reading and assignment preparation
TOTAL:	150		

9. Assessment for the above Module Occurrence					
Assessment No.	Assessment Method	Learning Outcomes	Weighting (%)	Fine Grade or Pass/Fail	Qualifying Mark (%)
010	Coursework	1,2,3,4	100 (%)	Fine Grade	30 (%)
Assignment: 3000 words					

In order to pass this module, students are required to achieve an overall mark of 40%.

In addition, students are required to:

(a) achieve the qualifying mark for each element of fine graded assessment of as specified above

(b) pass any pass/fail elements