



MODULE SPECIFICATION

Part 1: Information			
Module Title	Interaction Design		
Module Code	UFCFQ5-30-3	Level	Level 6
For implementation from	2018-19		
UWE Credit Rating	30	ECTS Credit Rating	15
Faculty	Faculty of Environment & Technology	Field	Computer Science and Creative Technologies
Department	FET Dept of Computer Sci & Creative Tech		
Contributes towards	Information Technology [Sep][FT][Frenchay][1yr] BSc (Hons) 2018-19		
Module type:	Standard		
Pre-requisites	None		
Excluded Combinations	None		
Co- requisites	None		
Module Entry requirements	None		

Part 2: Description
<p>Overview: Taking a human-centred perspective, Interaction Design focuses on the process of designing interactive digital products, applications and services that help enhance and re-scope the way that people use digital technologies and information. Students will explore designing the dialogue between people and technology within different contexts, with a view to finding creative and engaging ways to realise interactive experiences. This module is influenced by disciplines such as industrial design, ergonomics, human-computer interaction, and social and cognitive psychology.</p> <p>Educational Aims: In addition to the learning outcomes, the educational experience may explore, develop, and practise but not formally assess the following:</p> <p>Team working with stakeholder input in a Living Lab setting</p> <p>Ability to formulate a constructive critique of one's own and others' designs.</p>

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Outline Syllabus: Theories of Communication:

Human communication - Verbal, Non-verbal, role of emotion

Cultural and gender issues

Exploring the scope of interaction and interaction devices in different contexts:

Direct and indirect control devices;

Multi-touch, eye-tracking, data gloves, tangible user interfaces, sensors (movement, position, gesture, physiological signals)

Speech interfaces (Human-Agent Interaction - with Agent as Chatbots, Robots)

Display technologies;

Ambient displays, multi-size displays

Haptic and auditory interfaces

Expressive agents (verbal and non-verbal communication)

Information Visualisation:

General principles and context-specific guidelines

Data types and functional tasks

Information visualisation process

Multi-user interaction design:

Interaction design for synchronous and asynchronous communication

Collaborative social and virtual environments

Presence, culture and identity

Social interface design patterns

Persuasive and affective design:

Designing for behavioural change and well-being, social persuasion

Adaptive interfaces

Creativity and Innovation in design:

Creativity techniques for ideation

Longitudinal user research techniques

Communication of innovative concepts

Research-based interaction design:

Designing and implementing a context-based user-centred design methodology

Generation of formal requirement specifications for interactive systems – task, function mapping, prioritisation, criteria setting

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Hypothesis testing via iterative prototyping

Teaching and Learning Methods: There will be weekly three-hour sessions. These will be organised as a combination of in-class exercises, workshops and seminars in a studio-based setting for mini-projects. There will also be field-work sessions, these will be organised in the weekly session slots and as part of independent study sessions for mini-project work.

The emphasis of the sessions will be on ensuring a deep understanding of content through practical application of concepts and methods. This will be achieved through focused mini-projects, which the students will be able to use as part of their portfolios. The mini-projects will comprise the assessment elements, B1, B2 and A.

Students will be expected to actively participate and engage with all class activities, sharing and discussing their reflections with their tutors and peers in class face-to-face and electronically via discussion forums.

Scheduled learning

The module syllabus will be delivered through a combination of seminars and guided research and lab activities that will take place in workshops facilitated by the tutor.

Mini-Projects

One or more of the syllabus topics covered in the seminar and workshops will contribute towards the student completing a mini-project as part of their learning.

To complement material covered in class students will be expected to consult books, academic articles and quality practice resources – with guidance from the tutor and library staff where needed.

Examples of typical mini-projects include:

Compare two interaction devices to enable control of a (specific) technology in the home.

Create a visualisation of a person's daily activity levels obtained from a pedometer

Create a visualisation of tweets enabling differentiation of senders and content of the tweets or time, number and location.

Plan and conduct a user-based evaluation study of a (specific) mobile phone app

Design three concepts for a tangible interface for representing energy consumption data to prompt behaviour change.

Conceptualise a wall-mounted digital device that can embody and convey a sense of presence of a friend or relative

Design an interactive web-based game for teaching children (a specific topic).

The list of mini-projects will be updated on a regular basis to represent current advances and emphasis in the field and technological developments.

Students will be expected to employ a human-centred design process for to develop their design concepts, and utilise their technical skills gained at levels 1 and 2. For some of the design concepts there will be an expectation of analysing usability and user experience of the end product with a small group of representative users. Students will be expected to record their activities in a design journal and use their mini-projects as part of their professional portfolios, which they can share with employers.

Independent learning

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Readings to accompany weekly topics will be suggested, from essential and recommended resources, and students at level 3 are expected to also find reliable and appropriate material to complement these resources.

Students will be expected to maintain a design journal containing items encountered during their work for their mini-projects and including personal reflection on this work.

Part 3: Assessment

There will be two coursework elements B1 and B2.

Element B1 will be made up of 2 mini-projects and element B2 of 1 miniproject.

The assessment criteria for each of the mini-projects within each element will include:

Does the work illustrate a clear and comprehensive understanding of key issues?

Has a critical perspective been adopted in the discussion of the process or outcome?

Has the student conducted independent research in the area and referenced secondary literature as appropriate?

Other topic specific criteria

For the presentation demonstration (Component A) where the student will given a demonstration of their mini-project 3, the assessment criteria will include:

Does the design of the solution indicate thoughtful consideration of interaction design principles in relation to the target audience, their activities and context?

Does the solution reflect the requirements as identified?

Other topic specific criteria

First Sit Components	Final Assessment	Element weighting	Description
Project - Component B		42 %	Mini-projects 1 and 2 – Report (Critical reflection on process and outcome) (3000 words)
Project - Component B		28 %	Mini-project 3 – Report (Critical reflection on process and outcome) (2000 words)
Presentation - Component A	✓	30 %	Presentation and viva – Demonstration of Mini-project 3
Resit Components	Final Assessment	Element weighting	Description
Project - Component B		70 %	Individual design project report
Presentation - Component A	✓	30 %	Individual design project demonstration and viva

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Part 4: Teaching and Learning Methods		
Learning Outcomes	On successful completion of this module students will be able to:	
	Module Learning Outcomes	
	MO1	Understand various forms of human communication, considering cultural and gender issues, as a means of analysing and formulating intuitive and meaningful interactions with technologies
	MO2	Compare and contrast a variety of interaction devices in terms of their suitability in different contexts
	MO3	Create meaningful representations of information, which enable appropriate levels of interactivity in relation to the users' tasks
	MO4	Research the needs of a specific user group and design an interface which incorporates elements of persuasive/emotional design
	MO5	Use creativity techniques to ideate a range of novel concepts for interacting with a digital technology, ensuring adherence to usability design principles and user needs
	MO6	Synthesise secondary and primary research findings as part of conducting an evidence-based usability evaluation study
Contact Hours	Contact Hours	
	Independent Study Hours:	
	Independent study/self-guided study	228
	Total Independent Study Hours:	228
	Scheduled Learning and Teaching Hours:	
	Face-to-face learning	72
	Total Scheduled Learning and Teaching Hours:	72
	Hours to be allocated	300
	Allocated Hours	300
Reading List	<p><i>The reading list for this module can be accessed via the following link:</i></p> <p>https://uwe.rl.talis.com/modules/ufcfq5-30-3.html</p>	