

<b>Module code: MOD005426</b>	<b>Version: 1    Date Amended: 04/May/2016</b>
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<b>1. Module Title</b>
User Interface Development

<b>2a. Module Leader</b>
Jamie Myland

<b>2b. Department</b>
Department of Computing and Technology

<b>2c. Faculty</b>
Faculty of Science and Technology

<b>3a. Level</b>
4

<b>3b. Module Type</b>
Standard (fine graded)

<b>4a. Credits</b>
15

<b>4b. Study Hours</b>
150

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

## LEARNING, TEACHING AND ASSESSMENT INFORMATION

### 6a. Module Description

Developing effective human-computer interfaces is a fundamental concern within the software design and development industry. This module aims to introduce learners to the core concepts of interaction design, usability and user experience within the discipline of application development.

While considering interaction design problems, learners will develop skills in interface development via high level programming and mark-up languages such as C# with XAML or JavaScript with CSS. Event driven programming concepts will be introduced and utilised in order to develop an effective interface for the specified application.

User centred design concepts and tools such as user personas, usability goals and task analysis will be utilised to identify the problem space and justify design decisions.

Standard and custom interface controls within the chosen language will be explored and analysed before being implemented into the final design.

As well as implementing their application, the student must test their designs in several ways, including both usability and functional testing.

For assessment, the students will present a demonstration of their work and provide written documentation justifying and evaluating their design decisions.

The skills taught within the module are intended to be directly transferable to the workplace and to provide a suitable foundation for students who will be expected to apply programming skills in their later studies and future career.

### 6b. Outline Content

Interface development technologies such as C# XAML (WPF) or CSS & JavaScript

Usability and user experience concepts

User needs analysis

Design using storyboards & mock-ups

Implementation of a functional prototype

Testing for functionality and usability via tools and techniques such as heuristic analysis, unit testing with Test Explorer or automated testing with Selenium

Critical evaluation against user requirements

### 6c. Key Texts/Literature

The reading list to support this module is available at: <http://readinglists.anglia.ac.uk/modules/mod005426>

**6d. Specialist Learning Resources**

Microsoft Blend

Microsoft Visual Studio or VSCode

A mock-up or interface prototyping tool e.g. <https://moqups.com/>

**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 design concepts and theory.
2	Knowledge and Understanding	Describe and justify decisions relating to principles of good usability.
3	Intellectual, practical, affective and transferrable skills	Design & implement a functional prototype demonstrating usability principles
4	Intellectual, practical, affective and transferrable skills	Develop a testing regime and critically evaluate the solution.

**8a. Module Occurrence to which this MDF Refers**

Year	Occurrence	Period	Location	Mode of Delivery
2017/8	F01UCP	Semester 1	University Centre, Peterborough	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	Lecture 1 hr x 12 weeks
Other teacher managed learning	24	3,4	Practical 2 hr x 12 weeks
Student managed learning	114	1,2,3,4	Reading, research 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	Practical	3,4	0 (%)	Pass/Fail	100 (%)
Demonstration 15 minutes (1,000 words equivalent)					
Assessment No.	Assessment Method	Learning Outcomes	Weighting (%)	Fine Grade or Pass/Fail	Qualifying Mark (%)
011	Coursework	1,2	100 (%)	Fine Grade	30 (%)
Report on design, implementation and evaluation (2,000 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