



## **Module Specification**

### Digital Design and Development

Version: 2023-24, v2.0, 20 Mar 2023

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## Part 1: Information

**Module title:** Digital Design and Development

**Module code:** UFCFQJ-15-M

**Level:** Level 7

**For implementation from:** 2023-24

**UWE credit rating:** 15

**ECTS credit rating:** 7.5

**Faculty:** Faculty of Environment & Technology

**Department:** FET Dept of Computer Sci & Creative Tech

**Partner institutions:** None

**Delivery locations:** Not in use for Modules

**Field:** Computer Science and Creative Technologies

**Module type:** Module

**Pre-requisites:** None

**Excluded combinations:** None

**Co-requisites:** None

**Continuing professional development:** No

**Professional, statutory or regulatory body requirements:** None

## Part 2: Description

**Overview:** Not applicable

**Features:** Not applicable

**Educational aims:** See Learning Outcomes.

**Outline syllabus:** The syllabus includes:

User and context research tools and practices

Information architecture fundamentals: definitions, heuristics, approaches

Cross channel service design and user experience mapping

Prototyping: creating wireframes, templates and other visual design aids

Gathering user feedback: Formal and guerrilla usability testing

Design critique

Scripting language fundamentals: Javascript, PHP and others

Good coding practice: Use of code repositories, documentation, testing, reusability

Good design practice in relation to typography, layout, information design and visualisation

Issues in digital design: user experience, accessibility, responsive design, browser/device/OS compatibility, graceful degradation

Emerging platforms and interactions: VR, 3D Projection, Haptics, Internet of Everything

### **Part 3: Teaching and learning methods**

**Teaching and learning methods:** Scheduled learning includes a mixture of short talks, seminars and supervised practical classes and workshops;

Independent learning includes hours engaged with essential reading, assignment preparation and completion etc. These sessions constitute an average total time of 130 hours.

A total of 24 contact hours will be timetabled for the module. This will consist of flexible teaching and learning time.

Additional tutor and peer support will be available remotely for some design and coding activities.

**Module Learning outcomes:** On successful completion of this module students will achieve the following learning outcomes.

**MO1** Conduct professional quality stakeholder, context and competitor research using industry-standard methodologies

**MO2** Identify and develop creative solutions to a design problem and iterate and select among them for prototyping

**MO3** Pursue and respond to other's critique on their designs and, in turn, provide constructive critique on others' work

**MO4** Evaluate prototypes with stakeholders and identify necessary changes and improvements

**MO5** Identify good practice in a particular programming language and use this to implement key features for mobile, web or other digital interface

**MO6** Disseminate their work together with research evidence and communicate and justify design decisions

**Hours to be allocated:** 150

**Contact hours:**

Independent study/self-guided study = 126 hours

Face-to-face learning = 24 hours

Total = 150

**Reading list:** The reading list for this module can be accessed at [readinglists.uwe.ac.uk](https://uwe.rl.talis.com/modules/ufcfqj-15-m.html) via the following link <https://uwe.rl.talis.com/modules/ufcfqj-15-m.html>

## **Part 4: Assessment**

**Assessment strategy:** The assessment strategy has been developed to provide a rounded view of the student's performance as a digital designer and developer. In addition to carrying out research, conception and design work to a high standard, the student will be expected to exemplify reflective and professional practice through giving and receiving feedback, explaining design decisions and walking through code functionality.

The module will be therefore assessed through a combined portfolio and an individual presentation:

Combined portfolio: The portfolio will document the progress of the student through the design and development process and provide evidence of their ability to plan, conduct, critique and iteratively improve research, design and coding artifacts. The contents will be assessed according to the quality of each output, adherence to design principles and the learning evident from the process. Tasks will vary but will include design artifacts from the various stages of the process, such as:

- A summary of evidence from academic, user and contextual research;
- Initial design prototypes and accompanying critique;
- A summary of peer comments and a plan for changes;
- Results and analysis of stakeholder evaluation;
- Technical specifications for features to be implemented;
- Code libraries/demonstrators;
- High-fidelity interactive prototypes.

Tasks will typically be started during contact time when there will also be tutor feedback and peer review opportunities. Task completion, reflective commentary and submission may be completed online during independent study time. Individual tasks will be submitted on an on-going basis, with the full portfolio completed toward the end of the module contact period.

Individual presentation: Students will present a final functional prototype and describe and justify their process. A code walk-through will be included. This will be demonstrated to tutors in an assessed presentation together with a Q and A that will interrogate design decisions and implementation approaches. This assessment will be carried out in the exam period. It will be assessed according to: evidence of design process, coding standards, quality of visual design, quality of information design.

### **Assessment components:**

#### **Presentation (First Sit)**

Description: Individual output and presentation (10 minutes)

Weighting: 25 %

Final assessment: Yes

Group work: No

Learning outcomes tested: MO5, MO6

**Portfolio (First Sit)**

Description: Practical portfolio

Weighting: 75 %

Final assessment: No

Group work: No

Learning outcomes tested: MO1, MO2, MO3, MO4, MO5

**Presentation (Resit)**

Description: Individual output and presentation (10 minutes)

Weighting: 25 %

Final assessment: Yes

Group work: No

Learning outcomes tested:

**Portfolio (Resit)**

Description: Practical portfolio

Weighting: 75 %

Final assessment: No

Group work: No

Learning outcomes tested:

**Part 5: Contributes towards**

This module contributes towards the following programmes of study:

Information Technology [Frenchay] MSc 2023-24

Information Technology [Frenchay] MSc 2023-24

Information Technology [Villa] MSc 2023-24