



Module Specification

UI for Web Applications

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Part 1: Information

Module title: UI for Web Applications

Module code: UFCFX1-30-2

Level: Level 5

For implementation from: 2024-25

UWE credit rating: 30

ECTS credit rating: 15

College: College of Arts, Technology and Environment

School: CATE School of Computing and Creative Technologies

Partner institutions: University Centre Weston

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: Advancements in web platforms, portability, scalability and highly interactive web application experiences have resulted in Web Applications replacing many traditionally installed applications. In this module you will learn how to design User Interfaces for web applications utilising a range of tools and best practice, before coding your own WebApp prototype using common web UI frameworks, ensuring your application is accessible by anyone, anywhere, on any device which is integral to web interface design. You will be exposed to the wide availability of user

interaction tracking and have the opportunity to implement some of these in your applications.

Features: Not applicable

Educational aims: This is a practical module which aims to equip students with the ability to design and build a working prototype WebApp, before using web analytics to facilitate user interaction tracking.

Outline syllabus: This module will be delivered through a majority practical workshops and demonstrations covering:

Web Design & User Interface:

Wireframes.

Storyboarding.

Website Design.

Colour Theory, Typography, Layout, use of whitespace

Development.

Coding frontend web applications (HTML/CSS/JS).

Web UI Frameworks (Eg Bootstrap, Tailwinds, Material, Fluent).

Accessibility & integration of accessibility tools.

Progressive Web Applications.

Code validation (Eg W3C compliancy).

Analytics & User Testing:

User acceptance testing.

Analytics & user journey tracking (Eg Google Analytics).

Modelling UI tests for analytics.

Part 3: Teaching and learning methods

Teaching and learning methods: This is a practical module in which you will be required to design, code and analyse user interaction across a web application. Initial content will include exposure to common web prototyping tools and interfaces to design a solution to a provided scenario. Demonstrations and applied workshops

will give you the opportunity to learn and experiment with common web UI frameworks to give you the tools to prototype your own UI. Finally, you will explore common web engagement tracking tools which you will implement into your application.

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

MO1 Design, Wireframe and storyboard accessible User Interfaces for a Web Application use-case or scenario

MO2 Code, develop and test a prototype User-Interface for a WebApp scenario using web UI/UX frameworks

MO3 Install and configure web analytics tool(s) to track user engagement and journey across a web interface.

MO4 Implement and evaluate accessibility features of a WebApplication User-Interface

MO5 Use a range of accessibility tools to support different user groups and impairments, in alignment with legal responsibilities.

Hours to be allocated: 300

Contact hours:

Independent study/self-guided study = 204 hours

Face-to-face learning = 96 hours

Total = 300

Reading list: The reading list for this module can be accessed at [readinglists.uwe.ac.uk](https://rl.talis.com/3/uwe/lists/4AC9F945-997D-37B8-5BAF-C4B17E676486.html?lang=en-GB&login=1) via the following link <https://rl.talis.com/3/uwe/lists/4AC9F945-997D-37B8-5BAF-C4B17E676486.html?lang=en-GB&login=1>

Part 4: Assessment

Assessment strategy: This module has two assessments. For the first assessment you will be required to design a WebApp to meet a given scenario/specification using

a range of tools. Design documentation may include wireframes, storyboards, mood boards and interface designs. You will be required to present your designs and justify the decisions made, identifying where you have made provision for user accessibility.

For your second assessment you are required to build, test, and evaluate a prototype WebApp. For this task you will need to use web scripting languages and commonly used UI frameworks to develop an accessible front-end application interface, with particular attention to user accessibility and device compatibility. Finally you will be required to embed common user/useability tracing applications to monitor and track user journeys throughout your WebApplication UI.

Opportunities for formative assessment will be present throughout practical workshops during this module, allowing tutors and peers to feedback on designs and interfaces to influence design decision making.

The resit opportunities will follow the same format as the first submission, however alternative scenarios or case studies should be used.

Assessment tasks:

Presentation (First Sit)

Description: You are required to present and justify design documentation for a given WebApp scenario/specification. Design documents may include wireframes, mood-boards and graphics designs/storyboards with a focus on designing accessible user interfaces and demonstrate an awareness of the legal responsibilities surrounding UI (15 minutes).

Weighting: 40 %

Final assessment: No

Group work: No

Learning outcomes tested: MO1, MO4, MO5

Project (First Sit)

Description: In this assessment you are required to code and test the prototype WebApplication designed in your first assessment using Client Side Scripting (HTML/CSS/JS) and common web UI Frameworks.

Weighting: 60 %

Final assessment: Yes

Group work: No

Learning outcomes tested: MO2, MO3

Presentation (Resit)

Description: You are required to present and justify design documentation for a given WebApp scenario/specification. Design documents may include wireframes, mouldboards and graphics designs/storyboards with a focus on designing accessible user interfaces (15 minutes).

Weighting: 40 %

Final assessment: No

Group work: No

Learning outcomes tested: MO1, MO4, MO5

Project (Resit)

Description: In this assessment you are required to code and test a prototype WebApplication designed in your first assessment using Client Side Scripting (HTML/CSS/JS) and common web UI Frameworks.

Weighting: 60 %

Final assessment: Yes

Group work: No

Learning outcomes tested: MO2, MO3

Part 5: Contributes towards

This module contributes towards the following programmes of study: