Module Specification

Advanced Topics in Web Development 2

Version: 2024-25, v4.0, 05 Jul 2024

Contents

Part 1: Information

Module title: Advanced Topics in Web Development 2

Module code: UFCFR5-15-3

Level: Level 6

For implementation from: 2024-25

UWE credit rating: 15

ECTS credit rating: 7.5

College: College of Arts, Technology and Environment

School: CATE School of Computing and Creative Technologies

Partner institutions: None

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: In addition to the learning aims, the educational experience may explore, develop, and practise but not formally discretely assess the following:

Self-study of web-oriented design patterns and techniques using a range of web development languages.

Outline syllabus: The module will build upon and extend student knowledge from previous web development learning, with a deeper treatment and broader range of examples relating to:

Web and service-oriented architectures

Software architectures

Object-oriented programming for the web

Identification and selection of software design patterns

Web programming practices (model- and test-driven design, version control, load testing)

In addition, the module will introduce:

Web server configuration and deployment

Functional programming

Key language-specific libraries and package management and deployment tools

Documentation techniques

Examples and student work may be selected from a range of suitable web languages and modelling techniques.

Part 3: Teaching and learning methods

Teaching and learning methods: Lectures will introduce curriculum topics and provide demonstrations of tools and techniques.

Tutorials will combine structured programming tasks with development of the assessed coursework application. Support and feedback on the development approach will be provided by tutors.

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

MO1 Conduct a deeper investigation into web architectures and design patterns, selecting and applying the most suitable ones to create scalable web applications.

MO2 Analyse and utilise suitable web frameworks to develop complex web applications following best practices, appropriate software design patterns and current web architectures.

MO3 Explore and integrate advanced web development tools and techniques to enhance productivity and quality throughout the web development lifecycle.

Hours to be allocated: 150

Contact hours:

Independent study/self-guided study = 114 hours

E-learning/online learning = 36 hours

Total = 0

Reading list: The reading list for this module can be accessed at readinglists.uwe.ac.uk via the following link https://uwe.rl.talis.com/modules/ufcfr5-15-3.html

Part 4: Assessment

Assessment strategy: The assessment for this course will be based on a single coursework assignment, which will be completed individually by students with support from tutors and group-based work during laboratory sessions.

The coursework assignment will be designed to evaluate students' understanding and ability to apply concepts, techniques, and tools covered in the course to develop a well-structured, functional, and properly documented web application.

Both the first sit and resit will follow the same brief.

Assessment tasks:

Written Assignment (First Sit)

Description: Build, test and document a Web-based Framework

Weighting: 100 %

Final assessment: Yes

Group work: No

Learning outcomes tested: MO1, MO2, MO3

Written Assignment (Resit)

Description: Build, test and document a Web-based Framework

Weighting: 100 %

Final assessment: Yes

Group work: No

Learning outcomes tested: MO1, MO2, MO3

Part 5: Contributes towards

This module contributes towards the following programmes of study:

Information Technology {Top-Up} [Phenikaa] BSc (Hons) 2024-25

Information Technology {Top-Up} [SHAPE] BSc (Hons) 2024-25

Digital and Technology Solutions (Software Engineer) {Apprenticeship-UCW} [Sep][FT][UCW][4yrs] BSc (Hons) 2021-22

Information Technology {Top-Up} [Frenchay] BSc (Hons) 2023-24

Digital Media [Frenchay] BSc (Hons) 2022-23

Digital Media {Foundation}[Sep][FT][Frenchay][4yrs] BSc (Hons) 2021-22

Digital Media {Foundation}[Sep][SW][Frenchay][5yrs] BSc (Hons) 2020-21

Computer Science {Foundation} [Sep][SW][Frenchay][5yrs] - Not Running BSc (Hons) 2020-21

Digital Media {Foundation}[Sep][SW][Frenchay][5yrs] BSc (Hons) 2020-21

Digital Media [Sep][SW][Frenchay][4yrs] BSc (Hons) 2021-22

Digital Media {Foundation}[Sep][FT][Frenchay][4yrs] BSc (Hons) 2021-22

Computer Science [Sep][FT][Villa][3yrs] - Not Running BSc (Hons) 2022-23

Computer Science [May][FT][Villa][3yrs] - Not Running BSc (Hons) 2022-23

Computer Science [Jan][FT][Villa][3yrs] - Not Running BSc (Hons) 2022-23

Digital Media [Frenchay] BSc (Hons) 2022-23

Information Technology {Dual}[Taylors] BSc (Hons) 2022-23