



MODULE SPECIFICATION

Part 1: Information			
Module Title	Advanced Topics in Web Development 2		
Module Code	UFCFR5-15-3	Level	Level 6
For implementation from	2018-19		
UWE Credit Rating	15	ECTS Credit Rating	7.5
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	Entertainment Software Development 2018-19, Information Technology 2018-19, Introduction to Creative Coding 2018-19, Introduction to OO Systems Development 2018-19, Introduction to Web Platforms 2018-19, Web Programming 2018-19		
Excluded Combinations	None		
Co- requisites	None		
Module Entry requirements	None		

Part 2: Description
<p>Overview: Pre-requisites: UFCFR3-30-1 Information Technology or UFCFS5-30-1 Introduction to Web Platforms or UFCF8L-30-1 Introduction to Creative Coding or UFCFC3-30-1 Introduction to OO Systems Development or UFCFB3-30-1 Web Programming or UFCFWA-30-1 Entertainment Software Design</p> <p>Educational Aims: In addition to the learning aims, the educational experience may explore, develop, and practise but not formally discretely assess the following:</p> <p>Self-study of web-oriented design patterns and techniques using a range of web development languages.</p> <p>Outline Syllabus: The module will build upon and extend topic and principles introduced in Advanced Topics in Web Development I, with a deeper treatment and broader range of examples relating to:</p>

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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 web languages, including:

PHP

JavaScript

Python

Ruby

C#

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 (Element B). Support and feedback on the development approach will be provided by tutors.

Part 3: Assessment

Assessment is divided between an exam to test both theoretical and analytical skills and a coursework assignment.

The examination (A component) will typically consist of a compulsory section focusing on core technical knowledge and a selective section testing more specialized in-depth knowledge.

Answers will be assessed for completeness, technical correctness and the application of sound design principles. Thorough answers that show evidence of wider reading and independent learning will score highly.

Support for examination preparation through preparatory questions and worked answers will be provided.

The coursework assignment (B component) will normally be marked as an individual task supported by tutor and group based work during laboratory sessions.

The coursework will be assessed for the sound understanding and application of web technologies, programming standards and adequate documentation.

Weekly material presented in lectures and tutorial worksheets will provide the technical basis for the coursework assignment.

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First Sit Components	Final Assessment	Element weighting	Description
Set Exercise - Component B		50 %	Build, test and document a Web-based Framework
Examination - Component A	✓	50 %	Examination (3 hours)
Resit Components	Final Assessment	Element weighting	Description
Set Exercise - Component B		50 %	Individual design and implementation task
Examination - Component A	✓	50 %	Examination (3 hours)

Part 4: Teaching and Learning Methods		
Learning Outcomes	On successful completion of this module students will be able to:	
		Module Learning Outcomes
	MO1	Describe and critique web architectures, software design patterns and objectoriented, functional approaches to specific tasks
	MO2	Provide syntactically correct examples of software design pattern implementations in a language of their choice
	MO3	Describe and evaluate the use of contemporary tools and techniques at the relevant stage in the web development project life-cycle
	MO4	Select and apply a web framework in the language of their choice to a non-trivial programming task involving REST and MVC implementations
	MO5	Demonstrate appropriate use of development methods, testing and software documentation
Contact Hours	Contact Hours	
	Independent Study Hours:	
	Independent study/self-guided study	114
	Total Independent Study Hours:	114
	Scheduled Learning and Teaching Hours:	
	E-learning/online learning	36

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	Total Scheduled Learning and Teaching Hours:	36
	Hours to be allocated	150
	Allocated Hours	150
Reading List	<i>The reading list for this module can be accessed via the following link:</i> https://uwe.rl.talis.com/modules/ufcfr5-15-3.html	