

MODULE SPECIFICATION

Part 1: Information			
Module Title	Webapp Development		
Module Code	UFCFTM-15-1	Level	Level 4
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			
Module type:	Standard		
Pre-requisites	None		
Excluded Combinations	Excluded Combinations None		
Co- requisites None			
Module Entry requirements None			

Part 2: Description
Educational Aims: See Learning Outcomes
Outline Syllabus: Plan, develop and test interactive WebApps using suitable client and server side scripting languages. These could include: Client-side; e.g. HTML5, CSS3, JavaScript, jQuery Server-side; e.g. PHP, ASP, Ruby/Rails Frameworks; e.g. jQuery, AngularJS, React. Laravel, APIs; e.g. SOAP, REST, JSON
Use a suitable database engine e.g. SQL/NoSQL. Built a secure, performance-optimised database solution to power a WebApp
Develop professional user interfaces for at least one user level $\ \square$
Build and publish/deploy the completed project to a suitable enterprise webserver or hosting platform for general availability

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Explain what penetration testing is and how it contributes to information assurance

Complete penetration testing on a platform and record findings (e.g. SQL/code injection, data sanitisation, LFI/RFI, XSS, DDoS, brute force attacks)

Teaching and Learning Methods: Introductory lectures are supported by seminars, case studies, visits and practical workshops. In addition this module will be supported by interactive forums and learning tools.

150 hours study time of which 36 hours will represent scheduled learning. Scheduled learning includes lectures, seminars, tutorials, demonstration, practical classes and workshops; external visits; supervised time in studio/workshop.

Independent learning includes hours engaged with essential reading, case study preparation, assignment preparation and completion. Apprentice study time will be organised each week with a series of both essential and further readings and preparation for practical workshops. It is suggested that preparation for lectures, practical workshops, session delivery and seminars will take 7 hours per week.

36 hours scheduled learning

114 hours research, independent study and preparation for assessment work

Scheduled learning will typically include lectures, seminars, supervision, external visits and an interactive forum.

All apprentices are expected to attend a series of tutorials.

Part 3: Assessment

This module is assessed by a combination of techniques: an examination and a practical portfolio.

Exam (includes the following):

Explain some of the common authentication and security considerations facing web application developers and hosts as per the prescribed syllabus content.

An analysis of the computing and security needs in a given case study

Describe common penetration testing processes and how they can be applied to WebApp testing and application development cycle

Practical Portfolio (includes the following):

Evidence of planning and design of a WebApp to support a business scenario Implementation of a WebApp to support a business scenario Deploying and test a completed WebApp in a live/enterprise environment

Opportunities for formative assessment exist for the assessment strategy used. Verbal feedback is given and all apprentices will engage with personalised tutorials setting SMART targets as part of the programme design.

First Sit Components	Final Assessment	Element weighting	Description
Portfolio - Component B		70 %	Design, build, publish and test a business webapp to meet a defined requirement
Examination - Component A	✓	30 %	Internet Architecture Exam (1.5 Hours)

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Resit Components	Final Assessment	Element weighting	Description
Portfolio - Component B		70 %	Design, build, publish and test a business webapp to meet a defined requirement
Examination - Component A	✓	30 %	Internet Architecture Exam (1.5 Hours)

	Part 4: Teac	hing and Learning Methods			
Learning Outcomes	On successful completion of this module students will be able to:				
	I N	Module Learning Outcomes			
	MO1 E p s ir	explain common security risks present to bublishing public facing web application and authentication (e.g. SQL piection/data validation, protection from the protection and hashing techniques)	ons and best practice injection protection, code		
	MO2 E	explain penetration testing and how it assurance using examples or scenarion			
	MO3 P	Plan, design, implement and test a WebApp to support a business scenario			
	p p	mplement a secure WebApp back-en practice security and authentication (e protection, code injection/data validati proce attacks)	e.g. SQL injection		
	MO5 B	Build, manage and deploy the comple enterprise hosting environment	ted project into an		
	MO6 A	All data must be stored and retrieved structured SQL database	from an appropriately		
Contact Hours Contact Hours					
	Independent Study Hours:				
	Independent study/self-g	guided study	114		
		Total Independent Study Hours:	114		
	Scheduled Learning and Teaching Hours:				
	Face-to-face learning		36		
	Total Schedu	led Learning and Teaching Hours:	36		
	Hours to be allocated		150		

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	Allocated Hours	150
Reading List	The reading list for this module can be accessed via the following link:	
	https://uwe.rl.talis.com/index.html	