

H8WADV: Web Application Development

Module Code:	H8WADV
Long Title	Web Application Development APPROVED
Title	Web Application Development
Module Level:	LEVEL 8
EQF Level:	6
EHEA Level:	First Cycle
Credits:	10
Module Coordinator:	Dominic Carr
Module Author:	Sinead O'Sullivan
Departments:	
Specifications of the qualifications and experience required of staff	
Learning Outcomes	
<i>On successful completion of this module the learner will be able to:</i>	
#	Learning Outcome Description
LO1	Manipulate and Define Data Structures using mark-up languages
LO2	Implement server side scripting, and develop advanced server side functionality using databases
LO3	Critique frameworks, tools, languages, and controls available for developing Web Applications
LO4	Add strong dynamicity to Web sites using client side scripting languages
LO5	Evaluate through comparison the benefits and drawbacks of Client Side Scripting versus Server Side Scripting.
Dependencies	
Module Recommendations	
No recommendations listed	
Co-requisite Modules	
No Co-requisite modules listed	
Entry requirements	

H8WADV: Web Application Development

Module Content & Assessment			
Indicative Content			
Use of and Manipulation of Mark Up Languages (20%) Use of and Manipulation of Mark Up Languages (20%) • Structure of mark-up languages. • Definition of data structures using mark-up language e.g. XML. • Navigation and selection of data within a file e.g. using Xpath navigation. • Validation of mark-up languages e.g. using a schema.			
Server Side Scripting and Frameworks (20%) • Understand the basics of server side scripting. • Work with server side scripting libraries and databases Implement and deploy server side scripting applications. • Explore server side scripting web frameworks and develop applications with a server side scripting language. • Use of frameworks e.g. MVC (Model View Controller). • MVVM (Model View View Model). • Use of server side frameworks e.g. Cake PHP, Lithium.			
Document Object Model (10%) • DOM Structure Navigating a DOM Document to manipulate page content			
Client Side Scripting and Frameworks (20%) • An introduction to development frameworks that can enhance and speed up development of client side interaction. • Use of MVC and MVVM models for application development Use of data interchange tools for example JSON. • Use of PHP frameworks			
Architectures around RIA applications (20%) • Review of UI controls for RIA Restful API JSON over Http JQuery and JQuery Mobile			
Security (10%) • Evaluate strategies for testing for security (e.g. URL manipulation, injections). • Critically review and assess standard solutions for transporting data securely (e.g. HTML5 Security).			
Assessment Breakdown			%
Coursework			100.00%
Assessments			
Full Time			
Coursework			
Assessment Type:	430	% of total:	25
Assessment Date:	n/a	Outcome addressed:	1,2,3,4,5
Non-Marked:	No		
Assessment Description:	n/a		
Assessment Type:	430	% of total:	25
Assessment Date:	n/a	Outcome addressed:	1,2,3,4,5
Non-Marked:	No		
Assessment Description:	n/a		
Assessment Type:	430	% of total:	50
Assessment Date:	n/a	Outcome addressed:	1,2,3,4,5
Non-Marked:	No		
Assessment Description:	n/a		
No End of Module Assessment			
No Workplace Assessment			
Reassessment Requirement			
Repeat failed items <i>The student must repeat any item failed</i>			

H8WADV: Web Application Development

Module Workload				
Module Target Workload Hours 0 Hours				
Workload: Full Time				
Workload Type	Workload Description	Hours	Frequency	Average Weekly Learner Workload
Lecture	No Description	24	Every Week	24.00
Tutorial	No Description	24	Every Week	24.00
Independent Learning Time	No Description	202	Every Week	202.00
Total Weekly Contact Hours				48.00
Workload: Part Time				
Workload Type	Workload Description	Hours	Frequency	Average Weekly Learner Workload
Lecture	No Description	24	Every Week	24.00
Independent Learning Time	No Description	202	Every Week	202.00
Practical	No Description	24	Every Week	24.00
Total Weekly Contact Hours				48.00

Module Resources	
<i>Recommended Book Resources</i>	
<p>Earle Castledine, Craig Sharkie. jQuery: Novice to Ninja, SitePoint, p.480, [ISBN: 0987153013].</p> <p>Jeremy Keith, Jeffrey Sambells. DOM Scripting, friends of ED, p.350, [ISBN: 1430233893].</p>	
<i>This module does not have any article/paper resources</i>	
<i>This module does not have any other resources</i>	
Discussion Note:	