

PROG C7004: Web Application Development

Module Details	
Module Code:	PROG C7004
Full Title:	Web Application Development APPROVED
Valid From:	Semester 1 - 2019/20 (June 2019)
Language of Instruction:	English
Duration:	2 Semesters
Credits:	10
Module Owner:::	Peter Gosling
Departments:	Unknown
Module Description:	Students completing this module will be capable of designing, developing and deploying a fully maintainable, professional-looking dynamic cloud-based application capable of being viewed over a variety of devices.

Module Learning Outcome	
On successful completion of this module the learner will be able to:	
#	Module Learning Outcome Description
MLO1	Establish and convert user requirements into sound technical requirements
MLO2	Select and implement, using third party libraries, solutions to cloud based application needs
MLO3	Evaluate and address the implementation of work-flow processes in the context of a cloud based development
MLO4	Design and develop a content heavy database-driven cloud based application
Pre-requisite learning	
<p>Module Recommendations <i>This is prior learning (or a practical skill) that is strongly recommended before enrolment in this module. You may enrol in this module if you have not acquired the recommended learning but you will have considerable difficulty in passing (i.e. achieving the learning outcomes of) the module. While the prior learning is expressed as named DkIT module(s) it also allows for learning (in another module or modules) which is equivalent to the learning specified in the named module(s).</i></p>	
No recommendations listed	

Module Indicative Content	
Design Theory Story-boarding / Application narrative. Identifying the application rules, managing the content, designing across multiple platforms.	
Content Identification Types of content / how to identify content / how to discover content and content database design	
Work Flow / Business rules How to develop and implement business work flow rules / processes. Server side process implementation and verification	
Target Audience How to identify target audience types and their requirements and its impact on the narrative. Target device / browser impact in a HTML5 environment	
HTML5 / CSS3 Using stylesheets to control the look and feel of web sites. How to separate presentation from content. Advance use of responsive design and graphically enhanced displays	
Responsive Web Design Techniques to permit the web application to change its appearance to fit multiple screen devices using 3rd party solutions	
Display techniques Using advanced display techniques such as hover / on click / sliding panels / tabbed panels / showcasing / drop-down content / dynamic menus / keyword searching among others.	
Search Engine Optimisation Designing for and implementing SEO principles.	
Design and implement content Administration capability Design and build the back-office admin site.	
Utilising database content Techniques to implement the use of database content	
Integrate Plug-ins How to use available plug-in packages and freeware components	
Module Assessment	
Assessment Breakdown	%
Course Work	100.00%
Module Special Regulation	

Assessments

Full Time

Course Work			
Assessment Type	Continuous Assessment	% of Total Mark	15
Marks Out Of	0	Pass Mark	0
Timing	Week 5	Learning Outcome	2
Duration in minutes	0		
Assessment Description Web Application using 3rd party libraries			
Assessment Type	Continuous Assessment	% of Total Mark	20
Marks Out Of	0	Pass Mark	0
Timing	Week 13	Learning Outcome	3
Duration in minutes	0		
Assessment Description Implement workflow			
Assessment Type	Written Report	% of Total Mark	15
Marks Out Of	0	Pass Mark	0
Timing	Week 20	Learning Outcome	1,3
Duration in minutes	0		
Assessment Description Storyboard of planned final project, including markups of pages, process flows, work flows etc.			
Assessment Type	Continuous Assessment	% of Total Mark	50
Marks Out Of	0	Pass Mark	0
Timing	End of Year	Learning Outcome	1,2,3,4
Duration in minutes	0		
Assessment Description Final Project			
No Project			
No Practical			
No Final Examination			
Part Time			

Course Work			
Assessment Type	Continuous Assessment	% of Total Mark	15
Marks Out Of	100	Pass Mark	40
Timing	Week 5	Learning Outcome	2
Duration in minutes	0		
Assessment Description Web Application using 3rd party libraries			
Assessment Type	Continuous Assessment	% of Total Mark	20
Marks Out Of	100	Pass Mark	40
Timing	Week 13	Learning Outcome	3
Duration in minutes	0		
Assessment Description Implement workflow			
Assessment Type	Written Report	% of Total Mark	15
Marks Out Of	100	Pass Mark	40
Timing	Week 20	Learning Outcome	1,3
Duration in minutes	0		
Assessment Description Storyboard of planned final CA project, including markups of pages, process flows work flows etc			
Assessment Type	Continuous Assessment	% of Total Mark	50
Marks Out Of	0	Pass Mark	0
Timing	Sem 2 End	Learning Outcome	1,2,3,4
Duration in minutes	0		
Assessment Description Final Project			
No Project			
No Practical			
No Final Examination			
Reassessment Requirement			
No repeat examination <i>Reassessment of this module will be offered solely on the basis of coursework and a repeat examination will not be offered.</i>			
Reassessment Description Repeat CA will consist of an overall project for the module which will combine all learning outcomes. Final project with a companion document detailing the storyboard narrative of the site, the code walk through and database design plus testing plan and results			

Module Workload

Workload: Full Time					
<i>Workload Type</i>	<i>Contact Type</i>	<i>Workload Description</i>	<i>Frequency</i>	<i>Average Weekly Learner Workload</i>	<i>Hours</i>
Practical	Contact	2 2-hour lab based activity	Every Week	4.00	4
Independent Study	Non Contact	research current trends and project work	Every Week	4.00	4
Total Weekly Learner Workload					8.00
Total Weekly Contact Hours					4.00

Workload: Part Time					
<i>Workload Type</i>	<i>Contact Type</i>	<i>Workload Description</i>	<i>Frequency</i>	<i>Average Weekly Learner Workload</i>	<i>Hours</i>
Practical	Contact	One 3-hour lab based activity	Every Week	4.00	4
Independent Study	Non Contact	Research current trends and project work	Every Week	4.00	4
Total Weekly Learner Workload					8.00
Total Weekly Contact Hours					4.00

Module Resources

Recommended Book Resources

Joel Murach and Ray Harris. (2017), Murach's PHP and MySQL (3rd Edition), 3rd. [ISBN: 9781943872381].

Anne Boehm, Zak Ruvalcaba. (2018), HTML5 & CSS3, 4th. Murach, USA, [ISBN: 978-1-943872].

Tim Kadlec. (2013), Implementing Responsive Design, 1st. all, Pearson Education, 2013, [ISBN: 0-321-82168-8].

This module does not have any article/paper resources

Other Resources

[Website], A Smashing Media Company. Design Portal for HTML5 / CSS3,
<http://www.smashingmagazine.com/>

[Website], Useful HTML/CSS3 resource with tutorials and articles,
<http://tympanus.net/codrops/>