APPROVED

## 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		

Module Recommendations 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).

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 On Campus				
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				

No Final Examination

Part Time On Campus				
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			
<b>No repeat examination</b> Reassessment of this module will be offered solely on the basis of coursework and a repeat examination will not be offered.			
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 On Campus					
Workload Type	Contact Type	Workload Description	Frequency	Average Weekly Learner Workload	Hours
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 On	Campus				
Workload Type	Contact Type	Workload Description	Frequency	Average Weekly Learner Workload	Hours
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/