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

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

No repeat examination
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/