

PROG C7014: Dynamic Web Development

Module Details	
Module Code:	PROG C7014
Full Title:	Dynamic Web Development APPROVED
Valid From::	Semester 1 - 2019/20 (June 2019)
Language of Instruction:	English
Duration:	1 Semester
Credits::	5
Module Owner::	Philip McGuinness
Departments:	Unknown
Module Description:	The aim of this module is to create dynamic and interactive webpages using client-side programming and server-side programming that accesses a database.

Module Learning Outcome	
On successful completion of this module the learner will be able to:	
#	Module Learning Outcome Description
MLO1	Write client-side scripts that respond to user interaction with a webpage.
MLO2	Create and deploy webpages where part of the webpage can be updated.
MLO3	Write server-side scripts that can access a database.
Pre-requisite learning	
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>	
No recommendations listed	

Module Indicative Content
Client-side Scripting Events; Document Object Model; advanced display techniques (sliding and tabbed panels; drop-down menus) and associated code libraries.
Asynchronous Processing AJAX requests and responses; data formats (JSON and JSONP).
Graphics Programming Introduction to Canvas programming.
Server-side Scripting GET and POST; CRUD with PHP and MySQL; prepared statements; testing and debugging; importing data from Excel.

Module Assessment	
Assessment Breakdown	%
Course Work	15.00%
Project	55.00%
Practical	30.00%
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	Every Week	Learning Outcome	1,2,3
Duration in minutes	0		
Assessment Description Contribution to class activities and discussions			
Project			
Assessment Type	Project	% of Total Mark	55
Marks Out Of	0	Pass Mark	0
Timing	Week 12	Learning Outcome	1,2,3
Duration in minutes	0		
Assessment Description Event-driven website that contains asynchronous processing and database access.			
Practical			
Assessment Type	Practical/Skills Evaluation	% of Total Mark	30
Marks Out Of	0	Pass Mark	0
Timing	Week 5	Learning Outcome	1
Duration in minutes	0		
Assessment Description Lab-based exam on event-driven client-side programming			
No Final Examination			

Part Time On Campus			
Course Work			
Assessment Type	Continuous Assessment	% of Total Mark	15
Marks Out Of	0	Pass Mark	0
Timing	Every Week	Learning Outcome	1,2,3
Duration in minutes	0		
Assessment Description Contribution to class activities and discussions			
Project			
Assessment Type	Project	% of Total Mark	55
Marks Out Of	0	Pass Mark	0
Timing	Week 12	Learning Outcome	1,2,3
Duration in minutes	0		
Assessment Description Event-driven website that contains asynchronous processing and database access.			
Practical			
Assessment Type	Practical/Skills Evaluation	% of Total Mark	30
Marks Out Of	0	Pass Mark	0
Timing	Week 5	Learning Outcome	1
Duration in minutes	0		
Assessment Description Lab-based exam on event-driven client-side programming			
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.

Module Workload

Workload: Full Time On Campus

Workload Type	Contact Type	Workload Description	Frequency	Average Weekly Learner Workload	Hours
Practical	Contact	There will be two 2-hour lab timetabled classes per week. In these lecture/practical classes, the delivery of new material will be integrated with the practical implementation of that material. This flexible mode of teaching will allow students to derive maximum benefit from attending classes. The teaching/learning methodology will employ active learning techniques to facilitate effective student participation with a particular emphasis on problem-solving and group-based activities.	Every Week	4.00	4
Directed Reading	Non Contact	Students will be given material to read outside of class hours.	Every Week	1.00	1
Independent Study	Non Contact	Students will work on assignments outside of class hours.	Every Week	3.00	3
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
Independent Study	Non Contact	Students will work on assignments outside of class hours.	Every Week	3.00	3
Directed Reading	Non Contact	Students will be given material to read outside of class hours.	Every Week	2.00	2
Practical	Contact	There will be one 3-hour lab timetabled class per week. In this lecture/practical class, the delivery of new material will be integrated with the practical implementation of that material. This flexible mode of teaching will allow students to derive maximum benefit from attending classes. The teaching /learning methodology will employ active learning techniques to facilitate effective student participation with a particular emphasis on problem-solving and group-based activities.	Every Week	3.00	3
Total Weekly Learner Workload					8.00
Total Weekly Contact Hours					3.00

Module Resources

Recommended Book Resources

Jon Duckett. (2014), JavaScript and jQuery: Interactive Front-end Web Development, 1st. Wiley, <http://www.javascriptbook.com/>, [ISBN: 9781118871652].

Supplementary Book Resources

Nick Morgan. (2015), JavaScript for Kids: A Playful Introduction to Programming, 1st. No Starch Press, <https://nostarch.com/javascriptforkids>, [ISBN: 9781593274085].

Marijn Haverbeke. (2018), Eloquent JavaScript, 3rd. No Starch Press and free online at <https://eloquentjavascript.net/>, [ISBN: 978159327950].

Larry Ullman. (2017), PHP and MySQL for Dynamic Web Sites: Visual QuickPro Guide, 5th. Peachpit Press, <http://www.peachpit.com/store/php-and-mysql-for-dynamic-web-sites-visual-quickpro-9780134301846>, [ISBN: 9780134301846].

This module does not have any article/paper resources

Other Resources

Website, W3Schools,
<https://www.w3schools.com/>