

Module Title:	Web Development and Databases
Language of Instruction:	English
Credits:	5
NFQ Level:	7
Module Delivered In	1 programme(s)
Teaching & Learning Strategies:	This module is delivered entirely within a laboratory setting. Learners are seated at their computers throughout the course delivery and are activity participating in class work throughout each scheduled session.
Module Aim:	To introduce the student to network programming techniques and practice, with an emphasis on web development and database technologies.
Learning Outcomes	
<i>On successful completion of this module the learner should be able to:</i>	
LO1	Deploy HTML-based client-side web sites.
LO2	Design and build web-based server-side application programs.
LO3	Design a database schema in support of application requirements.
LO4	Integrate client-side web technologies with server-side web technologies.
LO5	Integrate web applications with server-side database systems.
Pre-requisite learning	
Module Recommendations <i>This is prior learning (or a practical skill) that is recommended before enrolment in this module.</i>	
No recommendations listed	
Incompatible Modules <i>These are modules which have learning outcomes that are too similar to the learning outcomes of this module.</i>	
No incompatible modules listed	
Co-requisite Modules	
No Co-requisite modules listed	
Requirements <i>This is prior learning (or a practical skill) that is mandatory before enrolment in this module is allowed.</i>	
Successful completion of Year 2 (or equivalent).	

Module Content & Assessment

Indicative Content
The Model-View-Controller Pattern n/a
The Web Development Infrastructure Client, server, content, protocol, client-side programming, server-side programming and database systems.
Static web sites with HTML. n/a
Server-side programming technologies. n/a
Dynamic web applications with server-side technologies n/a
Database Theory and SQL Database Theory (including schema design and an introduction to First Normal Form) and SQL (DML and DDL)
Dynamic web applications with database integration n/a
Introduction to web-based client-side programming technologies n/a

Assessment Breakdown	%
Continuous Assessment	50.00%
End of Module Formal Examination	50.00%

Continuous Assessment				
Assessment Type	Assessment Description	Outcome addressed	% of total	Assessment Date
Other	Build a static web-site using HTML technologies (LO1). Build a custom web server to host server side applications (LO2). Extend the custom web server to integrate with SQLite3 (LO4). Build a web application for Googles App Engine (LO4, 5). Design and build a database with MySQL (LO3). Integrate MySQL within a custom web application (LO5).	1,2,3,4,5	50.00	n/a

No Project

No Practical

End of Module Formal Examination				
Assessment Type	Assessment Description	Outcome addressed	% of total	Assessment Date
Formal Exam	No Description		50.00	Sem 1 End

ITCarlow reserves the right to alter the nature and timings of assessment

Module Workload

Workload: Full Time		
<i>Workload Type</i>	<i>Frequency</i>	<i>Average Weekly Learner Workload</i>
Laboratory	20 Weeks per Stage	4.00
Estimated Learner Hours	20 Weeks per Stage	2.60
	Total Hours	132.00

Module Delivered In

Programme Code	Programme	Semester	Delivery
CW_KCCGD_B	Bachelor of Science (Honours) in Computer Games Development	3	Mandatory