Module Title:	Web Development and Databases
Language of Instruction:	English

Credits:	5

NFQ Level:	7

Module Delivered In	No Programmes

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	
On successful completion of this module the learner should be able to:	
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 *This is prior learning (or a practical skill) that is recommended before enrolment in this module.*
No recommendations listed
Incompatible Modules *These are modules which have learning outcomes that are too similar to the learning outcomes of this module.*
No incompatible modules listed
Co-requisite Modules
No Co-requisite modules listed
Requirements *This is prior learning (or a practical skill) that is mandatory before enrolment in this module is allowed.*
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

SETU Carlow Campus reserves the right to alter the nature and timings of assessment

Module Workload

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