

Module Code	Pre-requisite Module codes	Co-Requisite Modules code(s)	ISCED Code	Subject Code	ECTS Credits	NFQ Level (CPD)#
CMPU3020	CMPU2029				10	7
<b>Module Title</b>	Internet Application Development					

## Internet Application Development

<b>School Responsible:</b>	School of Computing
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### Module Overview:

Students taking this module will acquire the skills necessary to develop three tier web applications incorporating client and server side technologies. The entry level languages and technologies of the web are famous for their simplicity, so the student is expected to be able to discover how to use these technologies by implementing solutions independently of class time.

Furthermore the module provides the student with a greater exposure to the functionality and potential of many languages and environments, focusing on the support provided by web server tools and technologies. Appropriate technologies at the forefront of modern web applications are introduced to the student.

### Learning Outcomes (LO):

On Completion of this module, the learner will be able to

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|----------|--|
| <b>1</b> | Develop a 3 tier web application incorporating a variety of technologies.                            |
| <b>2</b> | Select a technology, approach or language depending on the requirements for a specific project.      |
| <b>3</b> | Demonstrate a sound understanding of the role of security on the modern web.                         |
| <b>4</b> | Incorporate some of the features of rich internet applications in their web application              |
| <b>5</b> | Understand the structure of the document object model and how it can be accessed and manipulated     |
| <b>6</b> | Understand how to maintain state both on the client side and on the server side of a web application |
| <b>7</b> | Be able to describe and compare a number of web application stacks and technologies                  |

### Indicative Syllabus:

Client side technologies

Server side scripting

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Control and validation of data

Accessing persistent data on a web server

An overview of web application security

Maintaining state in web applications

Traversing and manipulating the DOM

Web services - developing, describing, registering and invoking web services

An introduction to web application frameworks

#### Learning and Teaching Methods:

The course delivery involves a combination of lectures and labs which may incorporate the use of blended learning techniques as appropriate throughout the delivery.

<b>Total Teaching Contact Hours</b>	39
<b>Total Self-Directed Learning Hours</b>	148

#### Module Delivery Duration:

This module is delivered over one semester

Assessment		
Assessment Type	Weighting (%)	LO Assessment (No.)
Final Exam	60%	1-8
In class examination	40%	1-8
Module Specific Assessment Arrangements (if applicable)		
(a) Derogations from General Assessment Regulations		
(b) Module Assessment Thresholds		
(c) Special Repeat Assessment Arrangements		

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**Essential Reading: (author, date, title, publisher)**

Robin Nixon, Learning PHP, MySQL & JavaScript: With jQuery, CSS & HTML5, 4<sup>th</sup> edition (14 Dec. 2014), O'Reilly Media, ISBN-10: 1491918667

David Flanagan, JavaScript: The Definitive Guide (Definitive Guides), Publisher: O'Reilly Media; 6 edition (13 May 2011) ISBN-10: 0596805527

Kevin Tatroe, Programming PHP, Publisher: O'Reilly Media; 3 edition (25 Feb. 2013) ISBN-10: 1449392776

<b>Version No:</b>		<b>Amended By</b>	
<b>Commencement Date</b>		<b>Associated Programme Codes</b>	

# Modules that are to be offered as Stand-Alone CPD Programmes must have an NFQ level assigned

\*Details of the assessment schedule should be contained in the student handbook for the programme stage.

**Date of Academic Council approval .....**

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