EE417: Web Application Development

Module Details

Short Title:	Web Application Development APPROVED
Full Title:	Web Application Development

Official Code:	EE417	**NFQ Level:**	8	**ECTS Credits:**	7.5

Valid From:	Academic Session - 2010/11 (September 2010)
Administrator:	Emma Johnson
Module Coordinator:	David Molloy
Description:	Web application development is the creation and maintenance of software applications to be used on the World Wide Web. It is performed by set of specific, specialised coders with skills in a variety of protocols, languages and frameworks. This module is intended to provide students with an in-depth knowledge of the underlying issues involved in the development of web applications. The focus is on demonstrating a number of typically (but not exclusively) Java-based technologies and how these systems can be combined to create modern web applications.

Learning Outcomes:

On successful completion of this module the learner will be able to

1. design and implement basic web applications through the java programming language
2. use the core building blocks for web-based systems to incrementally create web applications
3. create database structures to represent real-world entities and interact with these structures through SQL and JDBC
4. implement and demonstrate, in software, a set of technologies used in the development of modern web applications
5. explain a number of the challenges facing web application developers and provide solutions to address these issues

Pre-requisite learning

Module Recommendations

This is prior learning (or a practical skill) that is mandatory before enrolment in this module is allowed. You may not enrol on this module if you have not acquired the learning specified in this section.

No recommendations listed

Requirements

This is prior learning (or a practical skill) that is mandatory before enrolment in this module is allowed. You may not enrol on this module if you have not acquired the learning specified in this section.

No requirements listed

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Module Content & Assessment

Indicative Content
• **Client-side Programming** • **Server-side Programming** • **Server-side Concepts and Architectures** • **Java and alternatives** • **XML** • **Java Servlets & JSPs** • **Relational Database Systems** • **SQL** • **Java Database Connectivity** • **Hibernate** • **Model View Controller** • **Ajax**

Assessment Breakdown	**%**
Course Work	25%
End of Semester Formal Examination	75%

	Outcome addressed	*% of total*	*Assessment Date*
Formal End-of-Semester Examination	1,2,3,4,5	75%	Semester End

Coursework Breakdown

Type	*Description*	*Outcome addressed*	*% of total*	*Assessment Date*
Project	Development of a Web Application based on the technologies covered during the module	1,2,3,4	25	n/a

Reassessment Requirement
Resit of formal exam and coursework *Both the formal examination and coursework are available for resit*

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

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Module Workload & Resources

Workload	Full-time hours per semester	
Type	*Description*	*Hours*
Lecture	12 x 3 hour Lectures	36
Assignment	Development of Customer Web Application	40
Independent learning	Independent Learning	111
	Total Workload	187.00

Resources
Other Resources
• **M4V/Flash Video: David Molloy*Lecture Video Recordings*, DCU** • **Website: David Molloy*EE417 Course Material*** **http://www.eeng.dcu.ie/~ee417**