

Summary Information

Module Code	5114COMP
Formal Module Title	Advanced Web Development
Owning School	Computer Science and Mathematics
Career	Undergraduate
Credits	20
Academic level	FHEQ Level 5
Grading Schema	40

Teaching Responsibility

LJMU Schools involved in Delivery
Computer Science and Mathematics

Learning Methods

Learning Method Type	Hours
Lecture	22
Practical	33

Module Offering(s)

Display Name	Location	Start Month	Duration Number Duration Unit
JAN-CTY	CTY	January	12 Weeks

Aims and Outcomes

Aims	To present the concepts, methods and techniques used in the development and deployment of web applications and services. To develop the concepts of multi-tier web application development, including: server-side programming, database connectivity and media rich client-side interface development. To introduce wider concepts of web applications such as: legal issues, server hardware and system optimization
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After completing the module the student should be able to:

Learning Outcomes

Code	Number	Description
MLO1	1	Explain the architectural make-up of web applications: multi-tier web-based application model as well as the Internet, Intranet and Extranet architectural models of deploying web services; especially with regard to the security implications of each.
MLO2	2	Develop a moderately sized media rich multi-tier web solution from a given set of requirements and data tier solution.
MLO3	3	Iteratively develop, as a team, a larger user evaluated media rich multi-tier web solution for a given commercially oriented scenario that utilises local and external data sources.

Module Content

Outline Syllabus	Anatomy of a Web Application: Multi-tier Models, Client, Server and Service Internet, Intranet and Extranet Architectures.-The Lifecycle of a Web Application: Process, Deployment and Maintenance.-The Data Tier: Databases, SQL and Queries.-The Processing Tier: Language, Logic, Media Generation and Information.-The Client Interface Tier: HTML & CSS, Data Storage and Update, Interface, Media and Interaction..-Information System: Users, Roles, Tasks and Information.-Analysis and Design Methods: HCI and Usability, Agile Development Methods.-Testing Web Applications: Automated Tools, Stress Testing and User Evaluation
Module Overview	
Additional Information	This module provides the student with the concepts, methods, techniques and experience to analyse, design and develop media rich interactive multi-tier Web-based applications.

Assessments

Assignment Category	Assessment Name	Weight	Exam/Test Length (hours)	Module Learning Outcome Mapping
Technology	Individual Prototype	40	0	MLO1, MLO2
Report	Group-based Report	60	0	MLO3

Module Contacts

Module Leader

Contact Name	Applies to all offerings	Offerings
Basma Abdulaimma	Yes	N/A

Partner Module Team

Contact Name	Applies to all offerings	Offerings
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