

Liverpool John Moores University

Title: Internet and Open Source Programming
Status: Definitive
Code: **6108ENG** (116953)
Version Start Date: 01-08-2016

Owning School/Faculty: Electronics and Electrical Engineering
Teaching School/Faculty: Electronics and Electrical Engineering

Team	Leader
Ronan McMahon	Y

Academic Level: FHEQ6 **Credit Value:** 20 **Total Delivered Hours:** 72
Total Learning Hours: 200 **Private Study:** 128

Delivery Options

Course typically offered: Standard Year Long

Component	Contact Hours
Lecture	36
Practical	36

Grading Basis: 40 %

Assessment Details

Category	Short Description	Description	Weighting (%)	Exam Duration
Technology	Web app UI		20	
Technology	Web app		30	
Technology	Web site		50	

Aims

To provide a grounding in designing, developing and deploying web applications using current internet programming techniques using open source technologies.

Learning Outcomes

After completing the module the student should be able to:

- 1 Design and implement an accessible web application UI using HTML and CSS
- 2 Programme a web application (under version control) using a scripting language
- 3 Develop and link MySQL databases to a web based application
- 4 Develop interfaces for sharing structured data using XML
- 5 Design and implement Web2.0 application UIs using AJAX and JavaScript
- 6 Implement a production Linux based web server with a deployed web application

Learning Outcomes of Assessments

The assessment item list is assessed via the learning outcomes listed:

Design Web application UI	1						
Develop Web app	2	5					
Design web site	1	2	3	4	5	6	

Outline Syllabus

- o Design and implementation of accessible and effective web UIs*
- o Creating web UI mock-ups using Photoshop/GIMP/HTML and CSS*
- o Styling web pages using CSS*
- o Manipulating the DOM using JavaScript*
- o Aiding user interaction with AJAX and JavaScript*
- o Object orientated programming*
- o Implementing effective version control*
- o Writing XML/ATOM interfaces for sharing serialized data*
- o Understanding the UNIX/Linux environment*
- o Configuring a simple Linux based web application production environment*
- o Deploying a web application*

Learning Activities

A series of practical sessions with support material given in lectures

Notes

This module is designed for students wishing to pursue careers in web application development and open source programming. There is an expectation that students will understand and be familiar with the internet, web design, programming and databases.