**Liverpool** John Moores University

Title: INTERNET AND OPEN SOURCE PROGRAMMING
Status: Definitive
Code: **6036TECH** (106340)
Version Start Date: 01-08-2016

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

| Team | Leader |
|---|---|
| Jamie Finlay | Y |

| **Academic Level:** | FHEQ6 | **Credit Value:** | 24 | **Total Delivered Hours:** | 72 |
|---|---|---|---|---|---|
| **Total Learning Hours:** | 240 | **Private Study:** | 168 | | |

**Delivery Options**
Course typically offered: Standard Year Long

| Component | Contact Hours |
|---|---|
| Practical | 72 |

**Grading Basis:** 40 %

**Assessment Details**

| Category | Short Description | Description | Weighting (%) | Exam Duration |
|---|---|---|---|---|
| Essay | AS1 | Coursework: practical exam - design a simple applet in a limited time | 30 | |
| Essay | AS2 | Coursework: assignment - submit web function statement with style sheet (group activity) | 20 | |
| Essay | AS3 | Coursework: mini-project - students will work in pairs (or individually) designing a web site including the elements on the course | 50 | |

**Aims**

*To provide a comprehensive treatment of current internet programming techniques.*

## Learning Outcomes

After completing the module the student should be able to:

1       Write JAVA applets
2       Specify the function and look of a web site
3       Use internet scripting languages
4       Construct downloadable component models
5       Develop and link MySql databases using PHP
6       Implement a basic Linux O/S and 'Apache' Server configuration

## Learning Outcomes of Assessments

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

CW                      1

CW                      2

CW                      3      4      5      6

## Outline Syllabus

*The rational for JAVA, its development history, the JAVA virtual machine*
*The JAVA language: basic syntax, variable types, looping constructs.*
*Object orientated programming: polymorphism, inheritance, classes, interfaces, the use of class libraries.*
*Writing graphical applications/applets using the abstract windows toolkit.*
*Multithreaded programming: use in animation.*
*Scripting languages: e.g. JAVAScript, JScript, PERL, VBScript, PHP*
*Components: e.g. Active-X, JAVAbeans, JavaVirtualMachine*
*XML, HTML V4, Style sheets*
*Open Source Applications*

## Learning Activities

A series of practical sessions with support material supplied from the Internet. Different computing platforms will be used to emphasis the platform independence of the internet.

## Notes

This module is designed for students wishing to look into Java and open source programming.  There is an expectation that students will have already covered modules in  web design, programming, database creation and some general

computing.