Liverpool John Moores University

Title:	COMPUTER ARCHITECTURE AND CONFIGURATION
Status:	Definitive
Code:	**4045TECH** (105626)
Version Start Date:	01-08-2016
Owning School/Faculty:	Electronics and Electrical Engineering
Teaching School/Faculty:	Electronics and Electrical Engineering

Team	Leader
Paul Otterson	Y

Academic Level:	FHEQ4	**Credit Value:**	12	**Total Delivered Hours:**	48
Total Learning Hours:	120	**Private Study:**	72		

Delivery Options
Course typically offered: Standard Year Long

Component	Contact Hours
Lecture	12
Practical	36

Grading Basis: 40 %

Assessment Details

Category	Short Description	Description	Weighting (%)	Exam Duration
Essay	AS1	Practical - PC rebuild, PAT test and join existing network	30	
Essay	AS2	Class test - computer network theory	30	
Essay	AS3	Report – Case Study – technical requirements analysis	40	

Aims

To give an explanation and practical grounding, in the construction and configuration of simple computer hardware, peripherals and networks.

Learning Outcomes

After completing the module the student should be able to:

1 Describe how data and code are represented in a computer system and manipulate the various numbers bases that are used, how instructions are executed in a fetch decode execute cycle and describe microprocessor I/O and data transfer.
2 Recognise and construct component parts of a typical computer system and a a simple Ethernet Network.
3 Load and configure a typical Windows Operating System, and attach a range of peripherals including legacy devices.
4 Demonstrate a basic theoretical and practical knowledge of hardware and operating system software and simple networking, its administration and technical requirements

Learning Outcomes of Assessments

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

CW	2	3	4
CW	1	4	
CW	2	4	

Outline Syllabus

Review of Number Systems.
The fundamental components of a microcomputer system
Introduction to a typical microprocessor architecture
Memory Sub-systems
Microprocessor I/O
Peripheral Devices
Interfacing and data transfer
Processors and memory
Data handling : storage and communication
Hardware configuration
Peripheral selection and connection.
Comparative Operating Systems and O/S basics
OSI model basics
Network basics : Topologies, Network Connections, Ethernet and the TCP/IP Protocol suite
Win 2000+ server (and professional) overview
Active directory and account management basics
File and Print management basics

Learning Activities

Taught theory and Practical

Notes

This module provides a basic introduction to hardware and software configuration and maintenance. It provides a fundamental practical knowledge of computer systems, and basic networks.