

Module Title:	Computer Hardware
Language of Instruction:	English
Credits:	10
NFQ Level:	6
Module Delivered In	No Programmes
Teaching & Learning Strategies:	Combination of lecture and laboratory sessions. Lectures will provide traditional theory. Laboratory sessions will employ formative practical/assessment sheets.
Module Aim:	To familiarize the student with the PC computing platform
Learning Outcomes	
<i>On successful completion of this module the learner should be able to:</i>	
LO1	Identify the purpose of, configure, troubleshoot and replace the principal components/accessories of a PC
LO2	Select appropriate PC specifications for various applications
LO3	Understand the basic operation of a computer system
LO4	Describe and connect commonly used devices
Pre-requisite learning	
Module Recommendations	
<i>This is prior learning (or a practical skill) that is recommended before enrolment in this module.</i>	
No recommendations listed	
Incompatible Modules	
<i>These are modules which have learning outcomes that are too similar to the learning outcomes of this module.</i>	
No incompatible modules listed	
Co-requisite Modules	
No Co-requisite modules listed	
Requirements	
<i>This is prior learning (or a practical skill) that is mandatory before enrolment in this module is allowed.</i>	
No requirements listed	

Module Content & Assessment

Indicative Content
Introduction and Fundamentals What is a computer? Computer types; What is a program? Basic components; Buses; Program execution; Data considerations; PC components/technologies; System resources; Buying/building/upgrading a PC; Things to do with old PCs
Working on PCs Safety; Rules to upgrade by; Tools; Procedures
Motherboards Characteristics; Choosing; Installing; BIOS upgrade
Processors Intel and AMD processors; Choosing a processor; Forthcoming processors; Installing a processor
Memory Understanding memory; Putting CPU registers, primary and secondary storage into context; Cache; Access; Packaging; How much is enough?; Selection guide; Installing; Troubleshooting;
Removable Disks Overview - floppy, zip, CD, DVD, Flash, etc
Hard Disks Interface types; Drives: How hard disks work; Choosing a hard disk; Installing hard disks; Preparing for use
Tape Drives Tape technologies; Choosing, installing and configuring; Care; Troubleshooting; Long filenames; Backups
Video Adapters and Displays Characteristics; Choosing and installing adapters; Configuring; Troubleshooting; CRT and flat-panel displays; Installing and configuring; Troubleshooting; Touch screens
Keyboards Switch Types; Styles; Interfaces; Choosing; Configuring; Cleaning; Troubleshooting and Repairing
Mice, Trackballs and Digitising Pads Characteristics; Comparisons; Choosing and Configuring; Cleaning; Troubleshooting
Serial & Parallel Communications Overview; Serial Ports; Serial Cables; Installing and Configuring Serial Port Hardware; Troubleshooting Serial Port Problems; Mapping Parallel Ports to LPTs
USB and Firewire Characteristics; Host Controllers; Configuring; Troubleshooting;
Attached Devices Characteristics, configuration and connection of printers, scanners, digital cameras etc
Power Supplies Characteristics; Connectors; Choosing; Installing; Troubleshooting;

Assessment Breakdown	%
Continuous Assessment	50.00%
Practical	50.00%

No Continuous Assessment

No Project

Practical				
Assessment Type	Assessment Description	Outcome addressed	% of total	Assessment Date
Practical/Skills Evaluation	No Description	1,2,3,4	50.00	Sem 1 End

No End of Module Formal Examination

SETU Carlow Campus reserves the right to alter the nature and timings of assessment

Module Workload

Workload: Full Time		
<i>Workload Type</i>	<i>Frequency</i>	<i>Average Weekly Learner Workload</i>
Lecture	30 Weeks per Stage	1.00
Laboratory	30 Weeks per Stage	2.00
Estimated Learner Hours	30 Weeks per Stage	3.67
Total Hours		200.00

