## Devices and Platforms

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| *SMS Code* | IN520001 | *Directed Learning hours* | 60 |
| *Level* | 5 | *Workplace or Practical Learning hours* | nil |
| *Credits* | 15 | *Self-Directed Learning hours* | 90 |
| Prerequisites | None | *Total Learning Hours* | 150 |
| *This course approved in another Programme: No* | | | |

***Aims***

To introduce students to the range of devices, platforms, and concepts utilised in the IT industry.

***Learning Outcomes***

At the successful completion of this course, students will be able to:

1. Use appropriate systems tools to configure, maintain, troubleshoot and secure systems.
2. Identify, explain, and install the main components of a computer.
3. Connect and configure a range of devices.
4. Explain basic processor and operating system functionality.
5. Use a variety of development platforms to solve simple problems.
6. Identify sustainability issues involved in purchasing, using, and disposing of devices.

***Indicative Content***

* Installing, configuring and selecting PC hardware components
* Operating systems installation and maintenance (systems tools)
* Bootloaders
* Overview of operating systems (mobile, desktop, server, etc.)
* Use a VM & develop basic understanding of virtualisation
* Formats (media formats; open vs. binary)
* Basic use of transmission protocols (e.g. FTP, SSH)
* File systems
* Backup and RAID systems
* Troubleshooting hardware and software
* Connecting and configuring devices (Bluetooth, wifi, printers, Chromecast, AppleTV, etc.)/Mounting drives
* Command line proficiency
* Basic network configuration
* ‘Embedded’ (Raspberry Pi, Arduino, Development platforms)
* Environmental impact of IT

***Assessment***

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| **Assessment Activity** | **Weighting** | **Learning Outcomes** |
| Quizzes | 20% | 1,4,5 |
| Lab work | 15% | 1,2,3 |
| Theory Exam | 35% | 1,2,3,4,5 |
| Practical Exam | 20% | 1,4,5 |
| Assignment | 10% | 2,3,4 |

A single final result to be entered in SMS at completion.

***Resources***

Online/Lab Book