

## MODULE DESCRIPTOR

### Module Title

Virtual Systems Support

Reference	CM4118	Version	1
Created	May 2019	SCQF Level	SCQF 10
Approved	May 2019	SCQF Points	15
Amended		ECTS Points	7.5

### Aims of Module

To provide the student with the ability to understand the practicalities surrounding the implementation and management of virtual computer systems.

### Learning Outcomes for Module

On completion of this module, students are expected to be able to:

- 1 Define the architectural principles used when implementing virtualisation technologies.
- 2 Discuss the commercial and environmental benefits of virtualisation.
- 3 Describe the security issues affecting virtual systems.
- 4 Compare different virtualisation technologies.
- 5 Install and configure different virtualisation systems.

### Indicative Module Content

This module will expose students to not only the benefits but also the issues involved when deploying a virtualised system into an enterprise environment. Cloud computing: Virtual Storage, Software and Hardware, VMware, Xen Server, Virtual Storage, Virtual Networks, Cloud Computing, Containers, Privacy and Security Issues, Hypervisors, Docker.

### Module Delivery

This module is based on a series of lectures supplemented by guest speakers and student research.

### Indicative Student Workload

	Full Time	Part Time
Contact Hours	33	N/A
Non-Contact Hours	117	N/A
Placement/Work-Based Learning Experience [Notional] Hours	N/A	N/A
TOTAL	150	N/A
<i>Actual Placement hours for professional, statutory or regulatory body</i>		

**ASSESSMENT PLAN**

If a major/minor model is used and box is ticked, % weightings below are indicative only.

**Component 1**

Type: Coursework Weighting: 100% Outcomes Assessed: 1, 2, 3, 4, 5  
 Description: A written report.

**MODULE PERFORMANCE DESCRIPTOR****Explanatory Text**

The calculation of the overall grade for this module is based on 100% weighing of C1. An overall minimum grade D is required to pass the module.

Module Grade	Minimum Requirements to achieve Module Grade:
<b>A</b>	The student needs to achieve an A in C1.
<b>B</b>	The student needs to achieve a B in C1.
<b>C</b>	The student needs to achieve a C in C1.
<b>D</b>	The student needs to achieve a D in C1.
<b>E</b>	The student needs to achieve an E in C1.
<b>F</b>	The student needs to achieve an F in C1.
<b>NS</b>	Non-submission of work by published deadline or non-attendance for examination

**Module Requirements**

Prerequisites for Module	None.
Corequisites for module	None.
Precluded Modules	None.

**INDICATIVE BIBLIOGRAPHY**

- 1 ABHILASH, G. B., 2019. VMware vSphere 6.7 Cookbook: practical recipes to deploy, configure, and manage VMware vSphere 6.7 components, 4th Ed. Packt Publishing
- 2 GAVANDA, M., MAURO, A., VALSECCHI, P., NOVAK, K., 2019. Mastering VMware VSphere 6.7: effectively deploy, manage, and monitor your virtual datacenter with VMware VSphere 6. 7, 2nd Ed. Packt Publishing.
- 3 von OVEN, P. COOMBS, B., 2019. Mastering VMware Horizon 7.8: master desktop virtualization to optimize your end user experience, 3rd Ed. Packt Publishing
- 4 BUELTA, J., 2019. Hands-on Docker for Microservices with Python : design, deploy, and operate a complex system with multiple microservices using docker and Kubernetes. Packt Publishing
- 5 KUNDAN, A. P., 2019. Intelligent automation with VMware: apply machine learning techniques to VMware virtualization and networking. Packt Publishing