

COMP C7014: Cloud Foundations

Module Details	
Module Code:	COMP C7014
Full Title:	Cloud Foundations APPROVED
Valid From:	Semester 1 - 2019/20 (June 2019)
Language of Instruction:	English
Duration:	1 Semester
Credits:	5
Module Owner::	Caroline Sheedy
Departments:	Unknown
Module Description:	Students completing this module will have an understanding of the theory, design, costing and architecting principles underpinning cloud platforms.

Module Learning Outcome	
On successful completion of this module the learner will be able to:	
#	Module Learning Outcome Description
MLO1	Demonstrate an understanding of what motivates the use of the cloud and the associated cloud economy.
MLO2	Evaluate the Cloud Security Shared Responsibility Model and determine the suitability of commercial cloud platforms for a given scenario.
MLO3	Analyse the Cloud Architecting Principles, showing understanding of the theory of a well architected Framework of various Cloud Providers.
MLO4	Choose appropriate support services on the Cloud.
Pre-requisite learning	
<p>Module Recommendations <i>This is prior learning (or a practical skill) that is strongly recommended before enrolment in this module. You may enrol in this module if you have not acquired the recommended learning but you will have considerable difficulty in passing (i.e. achieving the learning outcomes of) the module. While the prior learning is expressed as named DkIT module(s) it also allows for learning (in another module or modules) which is equivalent to the learning specified in the named module(s).</i></p>	
No recommendations listed	

Module Indicative Content
Motivating use of Cloud Cloud computing definition. Understanding the cloud computing services: IaaS, PaaS, SaaS. The associated cloud economy.
Cloud Security Shared Responsibility Model Public, private and hybrid cloud models all have their own models. Understand and be able to compare and contrast.
Cloud Architecting Principles Examine the principles required to architect a technology solution for given cloud providers.
Cloud Support Services Evaluate a given application, assess the need for support services and identify appropriate ones.

Module Assessment

Assessment Breakdown	%
Course Work	60.00%
Final Examination	40.00%

Module Special Regulation

Assessments

Full Time

Course Work			
Assessment Type	Class Test	% of Total Mark	30
Marks Out Of	0	Pass Mark	0
Timing	Week 5	Learning Outcome	1,2
Duration in minutes	0		
Assessment Description	Theory test		
Assessment Type	Continuous Assessment	% of Total Mark	30
Marks Out Of	0	Pass Mark	0
Timing	Week 12	Learning Outcome	1,2,3,4
Duration in minutes	0		
Assessment Description	Project designing provider-agnostic cloud-based service		

No Project

No Practical

Final Examination

Assessment Type	Formal Exam	% of Total Mark	40
Marks Out Of	0	Pass Mark	0
Timing	End-of-Semester	Learning Outcome	1,2,3,4
Duration in minutes	0		
Assessment Description	n/a		

Part Time

Course Work			
Assessment Type	Class Test	% of Total Mark	30
Marks Out Of	0	Pass Mark	0
Timing	Week 6	Learning Outcome	1,2
Duration in minutes	0		
Assessment Description Theory test			
Assessment Type	Continuous Assessment	% of Total Mark	30
Marks Out Of	0	Pass Mark	0
Timing	Week 12	Learning Outcome	1,2,3,4
Duration in minutes	0		
Assessment Description Project designing provider-agnostic cloud-based service			
No Project			
No Practical			
Final Examination			
Assessment Type	Formal Exam	% of Total Mark	40
Marks Out Of	0	Pass Mark	0
Timing	End-of-Semester	Learning Outcome	1,2,3,4
Duration in minutes	0		
Assessment Description n/a			

Module Workload

Workload: Full Time					
<i>Workload Type</i>	<i>Contact Type</i>	<i>Workload Description</i>	<i>Frequency</i>	<i>Average Weekly Learner Workload</i>	<i>Hours</i>
Lecture	Contact	Formal lecture covering theory	Every Week	2.00	2
Practical	Contact	1x 2h lab to cover demonstration, tutorial and practical work	Every Week	2.00	2
Directed Reading	Non Contact	Articles, papers etc.	Every Week	2.00	2
Independent Study	Non Contact	Design and development work	Every Week	2.00	2
Total Weekly Learner Workload					8.00
Total Weekly Contact Hours					4.00

Workload: Part Time					
<i>Workload Type</i>	<i>Contact Type</i>	<i>Workload Description</i>	<i>Frequency</i>	<i>Average Weekly Learner Workload</i>	<i>Hours</i>
Lecture	Contact	Formal lecture covering theory	Every Week	2.00	2
Practical	Contact	1X2h lab to cover demonstration, tutorial and practical work	Every Week	2.00	2
Directed Reading	Non Contact	Articles, papers etc.	Every Week	2.00	2
Independent Study	Non Contact	Design and development work	Every Week	2.00	2
Total Weekly Learner Workload					8.00
Total Weekly Contact Hours					4.00

Module Resources

Recommended Book Resources

Thomas Erl. (2013), *Cloud Computing: Concepts, Technology & Architecture*, 1. 16, Prentice Hall (Service Technology Series from Thomas Erl), [ISBN: 0133387526].

Michael J. Kavis. (2014), *Architecting the Cloud*, 1. 16, Wiley & Co, [ISBN: 978-1-118-617].

This module does not have any article/paper resources

Other Resources

[Website], AWS. Pillars of AWS Well-Architected Framework,
<https://aws.amazon.com/blogs/apn/the-5-pillars-of-the-aws-well-architected-framework/>

[Website], Microsoft. (2019), Azure Architecture,
<https://docs.microsoft.com/en-us/azure/architecture/>