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MODULE DESCRIPTOR

Module Title

Cloud Computing

Reference	CMM529	Version	3
Created	April 2017	SCQF Level	SCQF 11
Approved	May 2013	SCQF Points	15
Amended	August 2017	ECTS Points	7.5

Aims of Module

1. To explore the key concepts and issues of cloud computing. 2. To enable students to assess the suitability of applying cloud technologies. 3. To develop students' skills in constructing cloud-based applications.

Learning Outcomes for Module

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

- 1 Identify the key concepts and issues in cloud computing.
- 2 Identify and explain the main principles and techniques in cloud computing.
- 3 Identify and describe the recent trends and developments in cloud computing technologies.
- 4 Apply technical skills to design and construct cloud-based applications.
- 5 Integrate software components to construct cloud-based applications.

Indicative Module Content

Definitions of Cloud Computing, benefits and limitations of Cloud Computing, cloud-based vs non cloud web applications, migrating into the cloud, cloud service models (IaaS, PaaS, SaaS), security in the cloud, costing, examples of existing service providers and APIs.

Module Delivery

Key concepts are introduced and illustrated through the medium of lectures. Laboratory sessions provide a series of exercises designed to develop proficiency in techniques essential to the development of cloud-based applications.

Indicative Student Workload

	Full Time	Part Time
Contact Hours	44	44
Non-Contact Hours	106	106
Placement/Work-Based Learning Experience [Notional] Hours	N/A	N/A
TOTAL	150	150
<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: Examination Weighting: 70% Outcomes Assessed: 1, 2, 3
 Description: This is a Closed book examination worth 70% of the total module assessment.

Component 2

Type: Coursework Weighting: 30% Outcomes Assessed: 4, 5
 Description: This component consists of a coursework assignment worth 30% of the total module assessment.

MODULE PERFORMANCE DESCRIPTOR**Explanatory Text**

The calculation of the overall grade for this module is based on 70% weighting of C1 and 30% weighting of C2 components.

	Coursework:						NS
	A	B	C	D	E	F	
Examination:	A	A	B	B	B	E	
	B	B	B	C	C	E	
	C	B	C	C	D	E	
	D	C	D	D	D	E	
	E	D	D	E	E	E	
	F	E	E	E	F	F	
NS	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 Hiran, K., Doshi, R. et al (2019). Cloud Computing: Master the concepts, architecture, and applications. bpb.
- 2 Wadia, Y. and Udel, R., and Chan, L., and Gupta, U. (2019) Implementing AWS: Design Build, and Manage your Infrastructure. Packt.
- 3 Sharma, S. (2019) Mastering microservices with Java. Packt.
- 4 Hunter, T., Porter, S. and Rajan, L. (2019) Building Google Cloud Platform Solutions. Packt
- 5 Dotson, C. (2019) Practical Cloud Security. O'Reilly.