This Version is No Longer Current
The latest version of this module is available here

MODULE DESCRIPTOR

Module Title

Cloud Computing

Reference	CMM529	Version	5
Created	March 2019	SCQF Level	SCQF 11
Approved	May 2013	SCQF Points	15
Amended	July 2019	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	Compare the operational concepts, implementation and performance issues of cloud computing systems, and the relative merits and suitability of each for complex data-intensive applications.
2	Critically appraise different cloud computing models, namely, infrastructure as a service (IaaS), platform as a service (PaaS), and software as a service (SaaS).
3	Evaluate design choices when solving real-world cloud computing problems by analysing and contrasting different cloud computing solutions.
4	Design and construct cloud-based applications through the application of advanced technical skills.
5	Integrate software components in novel ways to architect and develop cloud-based applications solutions for an enterprise.

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.

Module Ref:	CMM529 v5

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
Actual Placement hours for professional, statutory or regulatory body		

ASSESSMENT PLAN

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

Component 1

Type:	Examination	Weighting:	50%	Outcomes Assessed:	1, 2, 3
Description:	This is a closed book examination worth 50% of the total module assessment.				

Component 2

Type:	Coursework	Weighting:	50%	Outcomes Assessed:	4, 5
Description:	This component consists of a coursework assignment worth 50% of the total module assessment.				

MODULE PERFORMANCE DESCRIPTOR

Explanatory Text

The calculation of the overall grade for this module is based on 50% weighting of C1 and 50% weighting of C2 components.

Examination:

	Coursework: A	B	C	D	E	F	NS
A	A	A	B	B	C	E	
B	A	B	B	C	C	E	
C	B	B	C	C	D	E	
D	B	C	C	D	D	E	
E	C	C	D	D	E	E	
F	E	E	E	E	E	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.

Module Ref:	CMM529 v5

INDICATIVE BIBLIOGRAPHY

1	Hiran, K., Doshi, R. et al (2019). Cloud Computing: Maste 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. Pact.
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.