

# Module Documentation



**INFO08018**

Cloud Infrastructure and Enterprise Services

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# INFO08018

## Cloud Infrastructure and Enterprise Services

Short Title	Cloud and Enterprise Services		
Full Title	Cloud Infrastructure and Enterprise Services		
Attendance	100	Discipline	482 COMPUTER USE (INFO TECH)
Coordinator	Owen Foley	Department	Business
Official Code	INFO08018	NFQ Level	08
		ECTS Credit	05

### Module Description

Upon completion of the module, the student will understand the transition from a traditional enterprise in-house environment to a Cloud based enterprise environment. This involves an examination of concepts such as virtualization at each layer - compute, storage, network, desktop, and application - along with business continuity in a Cloud environment. The student will understand Cloud computing fundamentals, infrastructure components, service management activities, security concerns, and considerations for Cloud adoption.

Current developments with respect to IS technologies and their impact on business models will also be examined; the student will have a knowledge of significant new technology approaches.

### Learning Outcomes

*On completion of this module the learner will/should be able to*

1. Understand and evaluate the traditional Enterprise Infrastructure.
2. Identify and implement a Virtualized Storage solution.
3. Design and develop virtualization technology of compute, storage, network, desktop and application layers of IT infrastructure.
4. Describe and analyse business continuity solutions in a virtual data centre
5. Describe and analyse the key considerations for migration to the Cloud
6. Describe the emerging technology environment for Information Systems.

### Teaching and Learning Strategies

The module is a 100% CA with an emphasis placed on the application of theories studied to case scenarios to be built on through out the module. Core concepts with respect to technology will be examined after 4 weeks. The student will apply these to a project for submission at the end of the module.

### Assessment Strategies

Class and Lab tests to examine core technologies and a project to examine the ability of the student to apply the technologies to appropriate case studies. At least one case study to examine an emerging technology in Information Systems.

#### Repeat Assessment Procedures

The repeat assessment is in the form of a project.

#### Assessment Facilities

The labs for the module will require virtualisation software and external access to Cloud storage and services.

#### Module Dependencies

##### Prerequisite Modules

None

##### Corequisite Modules

None

##### Incompatible Modules

None

#### Indicative Syllabus

- **Journey to the Cloud** - Business drivers for Cloud Computing, Definitions of Cloud Computing, Cloud Infrastructure Development, and Transition to the Cloud.
- **Virtualized Data Centre VDC** - Compute Virtualization, Virtual Machine Components, Resource Management, Storage Virtualization, and Networked Virtualization including VLANs and SLANs, Desktop Virtualization, Application Virtualization.
- **Business Continuity in VDC** - Technology Options, Mechanisms to protect potential points of failure.
- **Cloud Services** - Cloud Services Model, Deployment Models, Economics of Cloud infrastructure and deployment.
- **Cloud Security** - Security concerns and counter-measures, access control and identify management, governance and risk. Cloud security best practices.

#### CourseWork / Assessment Breakdown

CourseWork / Continuous Assessment 100 %

#### Coursework Assessment Breakdown

Description	Outcome Assessed	% of Total	Assessment Week
Virtualized Data Centre VDC	1,2	30	Week 4
Cloud Services, Security and Business Continuity	3,4,5,6	70	Week 13

#### End Exam Assessment Breakdown

Description	Outcome Assessed	% of Total	Assessment Week
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## ACCS Mode Workload

Type	Location	Description	Hours	Frequency	Avg Wkly Wrkld
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Total Average Weekly Learner Workload 0.00 Hours

## Open Learning Mode Workload

Type	Location	Description	Hours	Frequency	Avg Wkly Wrkld
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Total Average Weekly Learner Workload 0.00 Hours

## Distance Learning Mode Workload

Type	Location	Description	Hours	Frequency	Avg Wkly Wrkld
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Total Average Weekly Learner Workload 0.00 Hours

## Part Time Mode Workload

Type	Location	Description	Hours	Frequency	Avg Wkly Wrkld
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Total Average Weekly Learner Workload 0.00 Hours

## Full Time Mode Workload

Type	Location	Description	Hours	Frequency	Avg Wkly Wrkld
Laboratory Practical	Laboratory	Cloud Infrastructure Development	3	Weekly	3.00

Total Average Weekly Learner Workload 3.00 Hours

## Online Learning Mode Workload

Type	Location	Description	Hours	Frequency	Avg Wkly Wrkld
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Total Average Weekly Learner Workload 0.00 Hours

## Module Resources

## Module Book Resources

None

## Module Alternate Book Resources

None

## Module Other Resources

None

## Module URLs

www.acm.org

www.ieee.org

## Additional Information

EMC Course Material - Cloud Infrastructure

## ISBN BookList

## Book Details

Dr. Kris Jamsa 2012 *Cloud Computing: SaaS, PaaS, IaaS, Virtualization, Business Models, Mobile, Security and More* Jones & Bartlett Learning  
 ISBN-10 1449647391 ISBN-13 9781449647391

Venkata Josyula 2011 *Cloud Computing: Automating the Virtualized Data Center (Networking Technology)* Cisco Press  
 ISBN-10 1587204347 ISBN-13 9781587204340

## Approval Information

School Approval by Carmel Brennan on 02-04-2015

Academic Council on 02-04-2015

## Programme Membership

Code	Intake Year	Programme Title
GA_BBISG_H08	201500	Bachelor of Science (Honours) in Business Information Systems