Course Descriptor
INTE409 Cloud computing

Proposed Academic Year	2021/ 2022	**Last Reviewed Academic Year**	2020/2021
Course Code	INTE409	**Course Title**	Cloud computing
Credit hours	3	**Level of study**	Undergraduate
College / Centre	COBA	**Department**	MIFS
Co-requisites	None	**Pre-requisites**	INTE330

1. COURSE OUTLINE

the course is designed to provide the students with core concepts of cloud computing and infrastructure of cloud computing, underlying cloud computing technologies, designing and implementation of modern cloud computing applications.

2. AIMS

The aims of this course "cloud computing" is to provide the students with a core concept of cloud computing, and application of cloud computing to the business and Industry. The students will be familiar with the basic technologies of cloud computing.

3. LEARNING OUTCOMES, TEACHING, LEARNING, ASSESSMENT METHODS, and Graduate Attributes Mapping

Learning Outcomes ***(Definitive)*** Upon successful completion of this course, students will be able to**:**	**Teaching and Learning methods** ***(Indicative)***	**Assessment** ***(Indicative)***	**Graduate Attributes Mapping**
1. Describe the core concept and architecture of cloud computing, and the characteristic of cloud.	Lectures and seminars, Case Studies, Group work, presentations, lab work	Class Presentation, Written Examination, Class Presentation, Written Examination, Assignment Project	Knowledge of a discipline.
2. Illustrate the system, network and storage virtualization and describe their role in	Lectures and seminars, Case Studies, Group work, presentations, lab work	Class Presentation, Written Examination, Class Presentation, Written Examination, Assignment Project	Knowledge of a discipline.

establishing cloud computing			
3. Explain key security and compliance challenges of cloud computing and how to overcome these challenges.	Lectures and seminars, Case Studies, Group work, presentations, lab work	Class Presentation, Written Examination, Class Presentation, Written Examination, Assignment Project	Knowledge of a discipline.
4. Analyze different cloud programming models	Lectures and seminars, Case Studies, Group work, presentations, lab work	Class Presentation, Written Examination, Class Presentation, Written Examination, Assignment Project	Knowledge of a discipline.

4. ASSESSMENT WEIGHTING

Assessment	Percentage of final mark (%)
Final	30
Mid	30
Assignment / Project	30
Participation	10
TOTAL	**100%**

5. ACHIEVING A PASS

Students will achieve 3 credit hours for this course by achieving a minimum overall score of 50%
NB *Ensure that ALL learning outcomes are considered.

6. COURSE CONTENT (Indicative)

LECTURE TOPIC	TIME (HOURS)
Overview of the course	01
Concept of Cloud Computing	05
Virtualization and Data centers	05
Cloud Service Models (IaaS, PaaS, SaaS)	05
Public, Private, and Hybrid Clouds	05
Cloud Resource Management	05
Cloud Infrastructure Management Systems	

Designing a cloud computing model	04
Cloud Challenges i-e. Cloud Security etc.	05
Cloud and cutting-edge technologies (IoT, Edge/Fog Computing, Mobile Clouds)	05
Big Data Processing Frameworks	05
TOTAL HOURS	**45**
Plus, **RECOMMENDED INDEPENDENT STUDY HOURS**	
TOTAL COURSE HOURS	**48**

7. RECOMMENDED READING

Core text/s:

Marinescu, D.C., 2017. *Cloud computing: theory and practice*. Morgan Kaufmann.

Library + online resources:

ASU library, ASU online resources (ProQuest and e-library) and
Sultan Qaboos University Library