



## Cloud Computing and Digital Platforms Course Descriptor

Course Title	Cloud Computing and Digital Platforms	Faculty	EDGE Innovation Unit (London)
Course code	NCHMV582	Course Leader	Marta Rodriguez-Martinez
Credit points	15	Teaching Period	6 weeks
FHEQ level	5	Date approved	March 2021
Compulsory/ Optional	Compulsory		
Prerequisites	None		
Co-requisites	None		

### COURSE SUMMARY

This course will build on prior theory covered in the Big Data course and will introduce the fundamentals of cloud computing technologies and digital platforms, including service-oriented computing architectures. The course will begin with introduction to the physical layer of storage and server infrastructure, working up through the application and network layers. The benefits of leveraging IaaS (Infrastructure as-a-Service), its components, advantages, pricing, and how it relates to Platform as-a-Service (PaaS), Software as-a-Service (SaaS), Bare-Metal as-a-Service (BMaaS), containers in the context of microservice architectures, and serverless will be introduced in the context of digitalisation solutions. Finally, the course will cover the common core components of most cloud service providers, and how those components are utilised in digital solutions.

### COURSE AIMS

- Introduce learners to the three tiers of a cloud platform: compute, network and storage.
- Train learners in techniques related to digital technologies that provide for and support scalability on demand.
- Introduce learners to the principles of microservice architectures, the importance of application containerisation, and how microservices communicate through API connections.

## LEARNING OUTCOMES

On successful completion of the course, learners will be able to:

### KNOWLEDGE AND UNDERSTANDING

- K3b Recognise the underlying principles and concepts behind compute, network and storage layers in cloud platforms and suggest suitable solutions to their organisation.
- K3b Analyse cloud platform technologies and their applications.
- K3b Apply the notion of elasticity and scalability to manage the performance of cloud solutions.

### SUBJECT SPECIFIC SKILLS

- S1b Evaluate the benefits and limitations of cloud platforms and their service model within an organisation.
- S2b Propose techniques and solutions that deliver the scalability required by digital solutions.

### TRANSFERABLE AND PROFESSIONAL SKILLS

- T1b Employ persuasive arguments to influence stakeholders.
- T2b Apply analytical thinking to provide solutions to a business problem .
- T2b Identify opportunities for improvement.

## TEACHING AND LEARNING

The course learning and teaching hours will be structured as follows:

- Seminar = 15 hours
- Applied Seminar = 7.5 hours
- Coaching session = 1 hour
- Academic Drop-ins = 4 hours
- Reading and Assessment Prep = 32.5 hours
- Application of learning = 90 hours

Total = 150 hours

## ASSESSMENT

### FORMATIVE

Learners will be formatively assessed during the course through a range of techniques. During seminars, applied learning seminars and one to one coaching, questioning and quizzing are used as formative assessment. The purpose of the formative assessment is to provide learners with developmental feedback to support their learning.

**SUMMATIVE**

AE	Assessment Type	Weighting	Online submission	Duration	Length
1	Written Assignment	70%	Yes	-	2500 words +/-10%
2	Oral	30%	No	30 minutes +/-10%	-

The summative assessment will be assessed in accordance with the assessment aims set out in the Programme Specification.

**FEEDBACK**

Learners will receive formal feedback in a variety of ways. For summative assessments, feedback is written and provided within 20 days of submission, and for formative assessment it could include verbal or written feedback. Learners will also have a progress review each quarter with their Multiverse Coach and their line manager. These reviews are an opportunity to discuss progress to date both in their role and on the degree programme.

**INDICATIVE READING**

Note: Comprehensive and current reading lists for courses are produced annually in the Course Syllabus or other documentation provided to learners; the indicative reading list provided below is used as part of the approval/modification process only.

**BOOKS**

Jackson, K.L. and Goessling, S., 2018. Architecting Cloud Computing Solutions: Build cloud strategies that align technology and economics while effectively managing risk. Packt Publishing Ltd.

Abdula, M., Averdunk, I., Barcia, R., Brown, K. and Emuchay, N., 2018. The Cloud Adoption Playbook: Proven Strategies for Transforming Your Organization with the Cloud. John Wiley & Son

**INDICATIVE TOPICS**

Learners will study the following topics:

- Layer choices around architecture and scalability
- Data layer technologies available, including big data support
- Network layer management
- Microservice architectures

<b>Title: NCHMV582 Cloud Computing Course Descriptor</b>					
<b>Approved by: Academic Board</b>					
Version number	Date approved	Date published	Owner	Location	Proposed next review date
1.0	March 2021	March 2021	Marta Rodriguez -Martinez	Multiverse website	March 2026
<b>Modifications (As per AQF4)</b>					
Version number	Date approved	Date published	Modification (including category number)		