



Data Engineering Micro- credentials

Level 5

5



Overview

ALS and Cardiff Metropolitan University have partnered to deliver the following 20-credit micro-credential courses in Blockchain Fundamentals and Data and Knowledge Management. Each course will be delivered online in the evening, providing an opportunity to study outside the workplace.

Programme units

Title	Level	Credit
Blockchain Fundamentals	5	20
Data & Knowledge Management	5	20

Benefits of the programme

These micro-credential courses comprise 20 Higher Education credits each and can support progression from the Level 4 Data Analytics Diploma to the Level 5 Data Engineering qualification. Each micro-credential course can be used as Recognition of Prior Certificated Learning (RPCL) to earn your credits, should you wish to progress your study to the Level 5 qualification.

Each course allows assessment to be tailored to your work-based learning.

The micro-credentials on offer:

Blockchain Fundamentals

This module aims to provide the opportunity to learn about the blockchain and related distributed ledger technologies. Covering the applications of blockchain, such as cryptocurrencies and decentralised finance, along with the current use of blockchain in different domains. Students will assimilate the knowledge to appreciate the challenges and opportunities of the blockchain revolution.

Data & Knowledge Management

This module introduces students to the theory underpinning information, data and knowledge management. It provides the student with the ability to evaluate and apply the methodologies, tools and techniques used in the development of databases and the management and analysis of data, including relational, non-relational and next-generation technologies.

Course Delivery

This is the course delivery information for both programme units.

- 1 x 2 hour Induction
- 12 x 3-hour sessions delivered online (Teams)
- Work-based assessments
- Assessment and course resources via VLE (Moodle)

Requirements

- GCSE or Equivalent A*-C Mathematics and English
- Relevant work experience

Software

Full access to the following standard software's/websites is essential for the programme study:

- **Microsoft Teams**
- **Microsoft Excel**
- **OneDrive**

Full access to the following bespoke software and all the libraries:

Links

<https://www.anaconda.com/products/distribution>

<https://www.rstudio.com/>

<https://cran.r-project.org/bin/windows/base/>

<https://docs.microsoft.com/en-us/sql/ssms/download-sql-server-management-studio-ssms?view=sql-server-ver16>

<https://www.microsoft.com/en-gb/sql-server/sql-server-downloads>

<https://powerbi.microsoft.com/en-us/downloads/>

<https://aws.amazon.com/>

If there are any concerns regarding accessing the software above, please speak with your line manager and ALS contact who will be able to support you with an alternative solution.

2

Delivery Schedule

The following delivery schedule covers both the Blockchain Fundamentals and Data & Knowledge Management programme units. If only one unit is selected only the dates for that unit will apply. **Please note all applicants must complete the pre-enrolment eligibility check**

Timescale	Session	Activity
March 2025 Pre-enrolment Eligibility Check (To be agreed with each individual applicant)	Stage 1 – Completion of digital application form Stage 2 – Complete Cardiff Metropolitan University Digital programme enrolment link	Eligibility ALS will review the application for stage 1 funding eligibility and pre-requisites.
March / April 2026	Programme Induction Induction via Teams	Programme induction Introduction to your University programme of study and ALS tutor. An overview of all units and an introduction to Moodle.
28/04/2026 18:00-21:00 (With comfort breaks)	Off the job learning Delivered by an ALS tutor virtually via Teams	Workshop for Data & Knowledge Management Session 1
29/04/2026 18:00-21:00 (With comfort breaks)	Off the job learning Delivered by an ALS tutor virtually via Teams	Workshop for Blockchain Fundamentals Session 1
05/05/2026 18:00-21:00 (With comfort breaks)	Off the job learning Delivered by an ALS tutor virtually via Teams	Workshop for Data & Knowledge Management Session 2
06/05/2026 18:00-21:00	Off the job learning	Workshop for Blockchain Fundamentals Session 2

(With comfort breaks)	Delivered by an ALS tutor virtually via Teams	
12/05/2026 18:00-21:00 (With comfort breaks)	Off the job learning Delivered by an ALS tutor virtually via Teams	Workshop for Data & Knowledge Management Session 3
13/05/2026 18:00-21:00 (With comfort breaks)	Off the job learning Delivered by an ALS tutor virtually via Teams	Workshop for Blockchain Fundamentals Session 3
02/06/2026 18:00-21:00 (With comfort breaks)	Off the job learning Delivered by an ALS tutor virtually via Teams	Workshop for Data & Knowledge Management Session 4
03/06/2026 18:00-21:00 (With comfort breaks)	Off the job learning Delivered by an ALS tutor virtually via Teams	Workshop for Blockchain Fundamentals Session 4
09/06/2026 18:00-21:00 (With comfort breaks)	Off the job learning Delivered by an ALS tutor virtually via Teams	Workshop for Data & Knowledge Management Session 5
10/06/2026 18:00-21:00 (With comfort breaks)	Off the job learning Delivered by an ALS tutor virtually via Teams	Workshop for Blockchain Fundamentals Session 5
16/06/2026 18:00-21:00 (With comfort breaks)	Off the job learning Delivered by an ALS tutor virtually via Teams	Workshop for Data & Knowledge Management Session 6
17/06/2026 18:00-21:00 (With comfort breaks)	Off the job learning Delivered by an ALS tutor virtually via Teams	Workshop for Blockchain Fundamentals Session 6
23/06/2026 18:00-21:00 (With comfort breaks)	Off the job learning Delivered by an ALS tutor virtually via Teams	Workshop for Data & Knowledge Management Session 7
24/06/2026 18:00-21:00	Workshop for Blockchain	Workshop for Blockchain Fundamentals Session 7

(With comfort breaks)	Fundamentals Session 1	
29/06/2026 18:00-21:00 (With comfort breaks)	Off the job learning Delivered by an ALS tutor virtually via Teams	Workshop for Data & Knowledge Management Session 8
01/07/2026 18:00-21:00 (With comfort breaks)	Off the job learning Delivered by an ALS tutor virtually via Teams	Workshop for Blockchain Fundamentals Session 8
07/07/2026 18:00-21:00 (With comfort breaks)	Off the job learning Delivered by an ALS tutor virtually via Teams	Workshop for Data & Knowledge Management Session 9
08/07/2026 18:00-21:00 (With comfort breaks)	Off the job learning Delivered by an ALS tutor virtually via Teams	Workshop for Blockchain Fundamentals Session 9
14/07/2026 18:00-21:00 (With comfort breaks)	Off the job learning Delivered by an ALS tutor virtually via Teams	Workshop for Data & Knowledge Management Session 10
15/07/2026 18:00-21:00 (With comfort breaks)	Off the job learning Delivered by an ALS tutor virtually via Teams	Workshop for Blockchain Fundamentals Session 10
21/07/2026 18:00-21:00 (With comfort breaks)	Off the job learning Delivered by an ALS tutor virtually via Teams	Workshop for Data & Knowledge Management Session 11
22/07/2026 18:00-21:00 (With comfort breaks)	Off the job learning Delivered by an ALS tutor virtually via Teams	Workshop for Blockchain Fundamentals Session 11
28/07/2026 18:00-21:00 (With comfort breaks)	Off the job learning Delivered by an ALS tutor virtually via Teams	Workshop for Data & Knowledge Management Session 12
29/07/2026 18:00-21:00	Off the job learning	Workshop for Blockchain Fundamentals Session 12

(With comfort breaks)

Delivered by an ALS tutor
virtually via Teams

Please contact us for more information

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Visit our website: alstraining.org.uk for a comprehensive list of our training services.