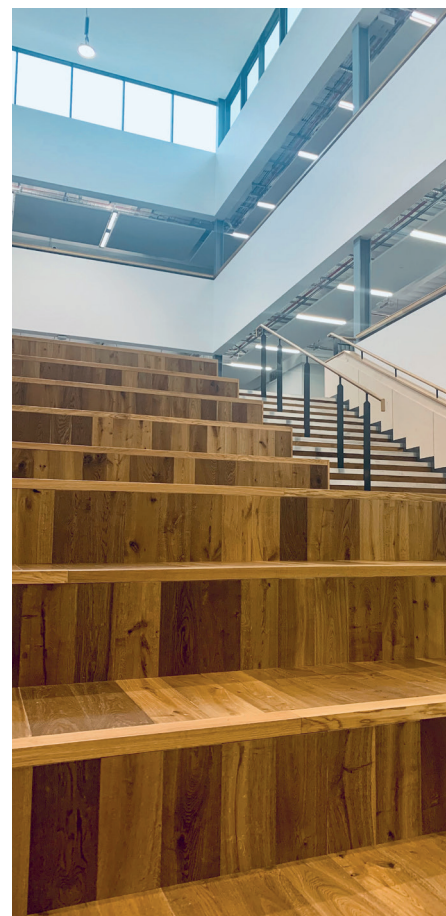
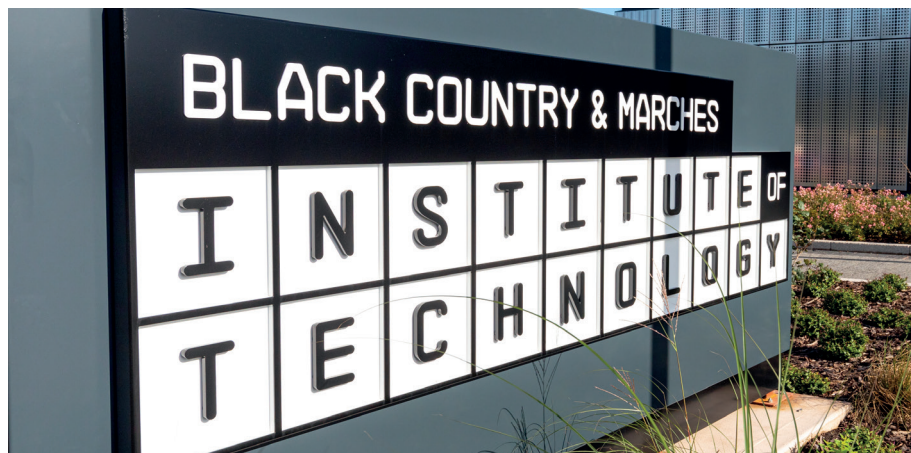


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Level 4 Data Analyst

Apprenticeship programme



Introduction

The Level 4 Data Analyst Apprenticeship Standard is designed for learners who in their job roles, work within the data architecture of a company. This programme will support learners to develop the key skills required to manage and interpret data sets to make informed business decisions. This qualification is utilised across a wide range of sectors including: health, retail, distribution, defence, banking, logistics, local government and education. This apprenticeship has been designed to expand the knowledge, skills and behaviours required to analyse data in an effective, safe and compliant way.

Data analysis is a fast-moving and changing environment, and data analysts need to continue to stay abreast of, and engaged with, changes and trends in the wider industry; including data languages, tools and software, and lessons learnt elsewhere.

Data analysis is a process of requirement-gathering, inspecting, cleansing, transforming and modelling data with the goal of discovering useful information, informing conclusions and supporting decision-making. Data analysis has multiple facets and approaches, encompassing diverse techniques under a variety of names. In today's world, data analysis plays a crucial role in making decisions more evidence-based and helping organisations operate more effect.

What you need to know:

- This programme runs for 24 months with an additional up to 12 weeks for End Point Assessment
- This programme is delivered through day release, one day per week to the Institute of Technology which will contribute to the 20% off the job training. You will also have access to online resources to support learning. Candidates are expected to continue to develop their knowledge and research in their own time and through mentor support in the workplace
- In order to proceed to EPA you must have achieved grade 4/ C or a Level 2 in English and Maths
- The cost of this apprenticeship is £15,000 – to discuss funding options please contact our Employer Engagement team on 01384 363 808
- You must be in a role in a relevant setting with scope, opportunity and support in the development of the workplace based portfolio of evidence.



Programme Structure

This apprenticeship will cover the knowledge, skills and behaviours set out in the apprenticeship standard.

The apprentice will develop skills to:

- Identify data sources to meet the organisation's requirement, using evidence-based decision making to establish a rationale for inclusion and exclusion of various data sets and models
- Liaise with the client and colleagues from other areas of the organisation to establish reporting needs and deliver insightful and accurate information
- Collect, compile and, if needed, cleanse data, such as sales figures, Digital Twins etc. solving any problems that arise, to or from a range of internal and external systems
- Produce performance dashboards and reports in the Visualisation and Model Building Phase
- Support the organisation by maintaining and developing reports for analysis to aid with decisions, and adhering to organisational policy/legislation
- Produce a range of standard and non-standard statistical and data analysis reports in the Model Building phase
- Identify, analyse, and interpret trends or patterns in data sets
- Draw conclusions and recommend an appropriate response, offer guidance or interpretation to aid understanding of the data
- Summarise and present the results of data analysis to a range of stakeholders, making recommendations
- Provide regular reports and analysis to different management or leadership teams, ensuring data is used and represented ethically in line with relevant legislation (e.g. GDPR which incorporates Privacy by Design)
- Ensure data is appropriately stored and archived, in line with relevant legislation e.g. GDPR
- Practice continuous self-learning to keep up to date with technological developments to enhance relevant skills and take responsibility for own professional development.



Core Modules

Data Sources

Data: sources, types and ownership

Learning will include

- Storage, archiving and sharing or exchanging
- Data and the Law
 - GDPR
 - Computer Misuse act
 - Privacy by design
- Ensuring data is appropriately stored and archived, in line with relevant legislation
- Identifying and defining the requirement
 - Verifying the requirement
- Principles of evidence-based validation
- Data profiling rationale
- Data sets, sources, internal external and collaborative.

Standardisation

Introduction to standards

Learning will include

- Data standardisation across projects
- Data Cleanse and GIGO
- Common Data Environment principles, CDE
- Risk mitigation in information
- Applying CDE
- Business needs analysis
 - Requirements validation
- Ensuring data is appropriately stored and archived, in line with relevant legislation
- Identifying and defining the requirement
 - Verifying the requirement
- Data accuracy and validation
 - Developing controls and policies
 - Stakeholder management and effective communication.

Deploying Compiled Data

- Deploying shared data
 - Data collection methods and practice, compilation and CDE
 - Technological solutions/considerations
 - Controlling hardcopy data in a shared environment
- Quality control and Business Process review
 - Contractual and commercial implications relating to the management of information
- Data cleansing
 - Digital twins, data duplication and cyclic data – problem identification and solution approaches
- Managing internal and external data sources.

Presenting The Data

- Types of presentation and reporting
 - Adaptation and dynamic delivery
 - Introduction to presentation ergonomics
- Practical presentation experience
 - Different data sources
 - Different audiences
- Reporting and analysis
- Practical reporting experience
 - Different data sources
 - Different audiences
- Visualisation and Modelling
- Developing and maintaining standing reports
- Developing standardised reports and Ad Hoc reporting.

Deploying Compiled Data

- Identify, analyse, and interpret trends or patterns in data sets
 - Trend analysis overview
 - Trend analysis in business, government, medical etc
- Conclusions, guidance, interpretation
 - Helping stakeholders understand the outcome
- Conflicting Data and possible resolution
- Data bias or ambiguity – impact on conclusions
- Corrupted data, deliberate and accidental
- “Lies, damned lies and statistics”
Data manipulation.

End Point Assessment Criteria

Overview

Knowledge, Skills and Behaviours or KSB's Full time apprentices will spend 24 months on-programme (with an additional 12 -20 weeks for EPA) working towards the Apprenticeship Standard, with a minimum of 20% off-the-job training. The EPA should only start once the employer is satisfied that the apprentice is consistently working at, or above, the level set out in the standard.

As a gateway requirement, apprentices must:

- Achieve English and Mathematics at Level 2 prior to taking their EPA
- Be acknowledged as working at, or above the required standard
- Have completed their evidence based holistic portfolio covering (at least once) all the knowledge, skills and behaviours set out in the standard
- Complete a work-based project report and presentation.

The EPA provides apprentices with a showcase opportunity to provide oral and documentary evidence of their knowledge, skills and behaviours developed throughout the apprenticeship and enables the independent assessor to assess the skills and behaviours of the apprentice by observing them in the course of their normal work.

The EPA consists of the following components:

- A presentation covering the topics of the work based project, and the ability to respond to questions from the assessor
- A professional discussion based on the knowledge, skills and behaviours detailed in the standard and supported by the candidates portfolio of evidence.

Performance in the EPA will determine the apprenticeship grade of pass, merit or distinction.

Get in touch

For more information about the Level 4 Data Analyst standard including options regarding funding – please contact our Employer Engagement team
employerservices@dudleycol.ac.uk or **01384 363 808**