

# LEVEL 3 DATA TECHNICIAN

## THE APPRENTICE and TRAINING PARTNERSHIP



### **There is nothing standard about the new apprenticeship Standards!**

In 2017 modern apprenticeships underwent a major overhaul. Apprenticeships now represent the very best in vocational Further Education programmes and benefit the widest range of employees and employers for new career starts, upskilling for progression or changes in career direction.

#### **Programme Overview:**

This skill set is found in all sectors or business functions where data is generated or processed. Therefore, it has incredible scope for employer deployment and as a career platform for employees.

Broadly, the purpose of the role as a Data Technician is to source, format and present data securely in a relevant way for analysis using methods to communicate outcomes appropriate to the audience. Additionally, to analyse structured and unstructured data, to support business outcomes, blend data from multiple sources, and manipulate data according to legal and ethical principles.

Typically, working as a member of a team, this role may be office based or virtual.

Daily responsibilities include interacting with a wide range of stakeholders including colleagues, managers, customers and internal and external suppliers. Collect and processing data under the guidance of a senior colleague or multiple colleagues across the business. This may vary by sector and size of the organisation. An employee would mainly be responsible for their own work but may have the opportunity to assist more senior member or even mentor other more junior members.

#### **Who is it for?**

For individuals working in a position which requires them to extract, compile, analyse and moderate volumes of data with a reasonable degree of complexity, for example:

- Database Technician
- Data Support Analyst
- Junior Data Analyst
- Junior Information Analyst

#### **Entry Requirements:**

Entry requirements exist for all funded Further Education programmes. These ensure the value, gain and success of the programme. The ATP will conduct the processes with employers and prospective apprentices to determine correct funding eligibility.

Here is a general overview of each eligibility criteria:

#### **Job role eligibility (known as Competency Role Map):**

The job role must contain opportunity for an apprentice to practice the content set out in the apprenticeship Standard to achieve vocational competency. Apprentices must have the opportunity to practice the knowledge taught in training sessions in order to convert new knowledge in to sustainable skills applied in the workplace.

Each apprenticeship requires a portfolio of evidence this will showcase the apprentice's work and will be reviewed by the apprenticeship assessment organisation to determine how well new knowledge has been successfully utilised vocationally. If a job role is close to the eligibility criteria we will consult with employers to see if adjustments can be made to ensure criteria is met.

### **Initial assessment of knowledge and skills:**

A prospective apprentice must stand to gain significant knowledge and skills from an apprenticeship. If the apprenticeship is too advanced for them or if they already know much of the knowledge and skills the apprenticeship would provide then they may not be eligible for the funding.

The ATP will review existing qualifications, knowledge and skills to determine if the prospective apprentice will benefit from the proposed apprenticeship such that it meets the funding criteria. In most instances this is very straightforward, however in some instances funding can be specially authorised for reduction in order to fund the parts of an apprenticeship that would be relevant. The ATP will provide the assessment for these possibilities.

The Level 3 Data Technician is highly technical, so whilst employers can select their own entry criteria, they should include; at least 5 GCSEs including English and Mathematics and hold a minimum of 120 UCAS points, or equivalent as a minimum to help ensure success.

In many cases this type of apprenticeship can demand a higher capability of English and maths than is taught at GCSE or A-Level. For example, advanced report writing, budgeting, complex structured explanations and/or advanced formulae and statistics. The ATP will provide both functional and advanced English and maths diagnostics and teaching to ensure each apprentice is fully supported in these areas.

### **Programme Duration:**

This apprenticeship is delivered over 18 months for full-time employees. For part-time employees the term is adjusted depending on contracted hours.

### **Standard Delivery Model:**

Apprenticeship training is delivered through a blend of weekly live virtual classrooms sessions and regular face-to-face mentoring sessions that are held on a one-to-one basis in the workplace.

These live classrooms are held through Microsoft Teams. This software provides the full suite of educational tools including everything you would find in a conventional classroom and more e.g. live open interactions, private breakout rooms, note and question queues and interactive illustration boards. We can also use movie green screen technology for lesson illustrations.

A full timetable for the training and mentoring, exams and assessments are provided at the outset. Progress is reviewed at 12 week intervals in a meeting between the mentor, apprentice and employer (typically the Apprentice's line manager).

Employers and apprentices have full visibility of progress in real-time by accessing the e-portfolio system, alternatively regular updates can be provided by other means if preferred.

### **End Point Assessment (EPA):**

Aside from qualifications that can be obtained by doing an apprenticeship, the most important and valuable goal is what has been achieved during the programme.

Successful apprentices will obtain a Pass, Merit or Distinction in their apprenticeship. The way a Pass, Merit or Distinction is determined is at a stage called End Point Assessment which takes place once all the learning has been completed. Like all examinations, a mock will take place before the final assessment.

Once all components of the apprenticeship have been achieved including the mock, a final review is conducted to ensure everything has been covered, this is called gateway. Then the apprentice will undergo their End Point Assessment.

### **EPA for this programme consists of:**

1. Portfolio of Evidence demonstrating work on 6-8 projects covering all the standard criteria
2. Employer Reference built over the course of the apprenticeship during the 12 week reviews, covering all the standard criteria
3. Two Scenario Demonstrations with supplementing questions from the Assessor
4. A structured interview with the Assessor discussing the Portfolio of Evidence



## Programme Structure:

Apprentices are taught a broad principles, techniques and technologies. The education incorporates knowledge, skills and behaviours as well as self-management self and objective led approach.

### Technical Competencies:

- Source data from a collection of identified trusted sources in a secure manner
- Collate and format data to facilitate processing and presentation for review and further analysis
- Present data for review and analysis by others, using mediums such as tables, charts and graphs
- Combine data from various sources and formats to explore relevance for business needs
- Analyse simple and complex structured and unstructured data to support business outcomes using basic statistical methods
- Validate analytical results using various techniques, to identify faults and to ensure integrity and quality
- Communicate results verbally, through reports and technical documentation, tailoring the message to each audience
- Store, manage and share data securely and in a compliant manner
- Collaborate internal and external contacts at all levels with a view to creating value from data
- Sustainably maintain own knowledge of technology developments to enhance own skills and take responsibility for own ongoing professional development

### Technical Knowledge and Understanding:

- Range of different data types. Common data sources - internal, external, open data sets, public and private
- Data formats and their importance for analysis. Data architecture - the framework against which data is stored and structured including on premises and cloud
- Access and extract data from a range of sources
- Collate and format data according to industry standards
- Data formats and their importance for analysis. Management and presentation tools to visualise and review data characteristics. Communication tools and technologies for collaborative working
- Communication methods, formats and techniques, including: written, verbal, non-verbal, presentation, email, conversation, audience and active listening

- Range of roles within an organisation, including: customer, manager, client, peer, technical and non-technical
- Value of data to the business
- How to undertake data blending from multiple sources
- Building and deploying algorithms, using a step-by-step solutions, or rules to solve the problem along with scope for automation
- Detail filtering, focusing on information relevant to the data project
- Basic statistical methods and simple data modelling to extract relevant data and normalise unstructured data
- Common data quality issues e.g. misclassification, duplication, spelling error, obsolescence, compliance, interpretation/translation of meaning
- Methods of data validation and the importance of corrective action
- Communicating results through basic narrative
- Legal and regulatory requirements e.g. Data Protection, Security, Intellectual Property Rights (IPR), sharing, marketing consent, personal data definition and ethical use of data
- Significance of customer issues, problems, business value, brand awareness, cultural awareness/diversity, accessibility, internal/external audience, level of technical knowledge and profile in a business context
- Role of data in the context of the digital world including the use of external trusted open data sets, how data underpins every digital interaction and connects across the digital landscape including applications, devices, IoT and customer centricity
- Different learning techniques and the breadth and sources of knowledge

### Underpinning Skills, Attitudes and Behaviours:

- Source and migrate data
- Collect, format and save datasets
- Summarise and explain data
- Blend data sets from multiple sources and present in a format appropriate to the task
- Manipulate and link different data sets
- Use tools and techniques to identify data trends and patterns, including statistical methods and algorithms
- Apply cross checking techniques to identify faults and results for a data project

- Demonstrate different ways of communicating meaning from data in line with audience requirements
- Produce clear and consistent technical documents using standard organisational templates
- Store, manage and distribute data in compliance with security standards and legislation
- Explain data and results to different audiences in a way that aids understanding
- Proactively self-critique and develop
- Maintain knowledge of technological developments, trends and innovation from industry sources
- Cleanse data i.e. remove duplicates, typos, out of date, parse, test and assess confidence in data integrity
- Operate as part of a multi-functional team
- Prioritise within the context of a project
- Manage own time to meet deadlines and manage stakeholder expectations
- Work independently and take responsibility
- Use own initiative
- A thorough and organised approach
- Work with a range of internal and external customers
- Value difference and be sensitive to the needs of others

The designated trainers and mentors will support the employer and apprentice throughout the programme dedicated points of contact for questions and queries. This includes additional support for portfolio and project preparation, along with any advice and guidance needed.

## **Qualifications and Certifications:**

- MTA Database Fundamentals (SQL)

## **Additional Teaching:**

To help apprentices perform in industry we have developed and included the following additional teaching:

- Introduction to Power BI or Tableau

## **Next steps:**

To configure an ideal apprenticeship we will meet with you virtually to discuss your requirements, present the options and collaborate to determine the best apprenticeships to meet your needs. We will provide ongoing support including:

- Recruitment of apprentices
- Quality assured Information Advice and Guidance
- Updates and information on legislation and funding
- Support and guidance for apprentice and employer throughout the apprenticeship
- Access to a comprehensive suite of resources and support material via OneFile
- Industry specialist qualified trainers and mentors

