DATA ANALYST

APPRENTICESHIP ROADMAP

TRAFFORD & STOCKPORT COLLEGE GROUP

1. ONBOARDING

You will have an initial meeting with one of our Admissions Advisors where you will receive information, advice and guidance regarding our apprenticeships. Forms and initial assessments will be sent to you to complete and return back to us.

On day 1 you will receive an overview of the apprenticeship which will be followed up by a comprehensive standard specific induction by your Skills Coach in the first week. You will have your first 1-2-1 with the Skills Coach where the planning of your Individual Learning Plan (ILP) will begin.

2. MONTHLY TRAINING

You will undertake 52 days of training activities over the first 12 months which will occur in either 1, 2 or 3-day blocks. The training includes Instructor led sessions, self directed learning and workplace projects. The training will cover The Business Domain, Requirements and Data architecture, Data Collection and Manipulation, Data Analysis and Visualisation, Statistical & Predictive Analysis, Time Series Analysis and AI and Machine Learning.

The training will be delivered using Microsoft Teams via video sessions, assignments and projects. Joining instructions and your Teams account details will be sent to you.

3. SKILLS COACH

You will be assigned a Skills Coach who will meet with you at least once a month to discuss the progress you have been making and will stay with you until the end of your apprenticeship. They will help to select the most appropriate projects to include in your portfolio so ensuring that you meet the Knowledge, Skills and Behaviours (KSB).

4. WORKPLACE LEARNING

During your apprenticeship you will attend training to develop your knowledge and skills and work on projects and assignments in the workplace that meet KSBs needed to reach the End Point Assessment (EPA). Your Skills Coach will review your work and provide feedback.

5. PORTFOLIO COMPLETION & EPA

As you near the end of your apprenticeship, you will work with your Skills Coach to ensure that your portfolio is completed and meets the needs of EPA. During EPA, your Skills Coach will meet with you each week (or as often as needed) to ensure you are prepared for EPA and all the assessment methods.

6. APPRENTICESHIP COMPLETION

Once all EPA projects and interviews have been completed, you will receive your final apprenticeship grade within 1 week of the final assessment method.

In collaboration with

Reed {codenation}

For more information contact the Apprenticeships Team **apprenticeships@tscg.ac.uk**

DATA ANALYST

LEVEL 4 APPRENTICESHIP

TRAFFORD & STOCKPORT COLLEGE GROUP

COURSE DURATION

18 months

OVERVIEW

The apprenticeship lasts 18 months and involves monthly training blocks during the first 12 months, focused on developing workplace-ready data analytics skills. Training begins with developing an understanding of the business domain and how to effectively gather requirements, followed by developing skills in applications such as Excel, PowerBI and Python. Apprentices will use these skills to analyse data and support decision-making process.

Alongside the training they will continue to learn on the job, refining their existing skills and learning further statistical, predictive, time series analytics and AI and Machine learning techniques to utilise initially in training sets and when appropriate on data within the workplace. Apprentices will be supported throughout throughout by you and our designated Skills Coaches, who will meet regularly with the apprentice and yourselves for 1-1's.

Throughout the apprenticeship, they will create a portfolio of evidence showcasing their best work. Our Skills Coaches work with you to create a tailored coaching plan, while you provide projects, appraisals, and ongoing in-house training and mentoring.

WHAT'S COVERED

- Understand the principles of data analytics
- Analytical and mathematical skills
- Problem solving skills
- Technical and non-technical communication skills
- Research and troubleshooting skills
- Ability to work well in a team
- Willingness to learn and adapt

TYPICAL JOBS INCLUDE

- Data Analyst
- Department Data Analyst
- Junior Analyst
- Marketing Data Analyst
- Problem Analyst
- Energy Data Analyst

ELIGIBILITY

When deciding whether or not someone is suitable for this course, you need to be able to answer yes to the following questions:

- ✓ They will work in a full-time technical role focussed on data analysis
- ✓ They will identify appropriate sources of data, collect, compile and if necessary clean data
- ✓ Produce performance dashboards and reports
- ✓ Produce a range of standard and non-standard statistical and data analysis reports
- ✓ 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
- ✓ They will be in a team that focuses on data analysis with supervision from a senior data analyst

In collaboration with

Reed {codenation}

For more information contact the Apprenticeships Team **apprenticeships@tscg.ac.uk**

LEARNER JOURNEY

TRAFFORD & STOCKPORT COLLEGE GROUP

DAY 1 (Before initial training)

Complete onboarding session, meeting the apprenticeship team and gain an understanding of the entire apprenticeship journey.

MONTHS 1-12 (Training period)

1. The Business Domain
In month 1 you will learn about the why, relevant domain (industry / organisation) knowledge will enable effective data analysis, your role in the business , explicit & tacit knowledge, principles of user experience and organisational tools.

2. Requirements and Data architecture
In month 2 you will learn about the data analytics lifecycle, DA roles, architecture and GDPR.

3. Data Collection and Manipulation
In months 3 and 4 you will learn about data, information, knowledge, types of data & files, quantitative & qualitative data, types of data structures, ETL process, data validation and verification, data quality, collecting data, data integration and data profiling.

4. Data Analysis and Visualisation
In months 5 and 6 you will learn about Power BI visualisation tools and their purposes, DAX – data analysis expressions, data modelling: conceptual/ logical/ physical and data drilling & analysis, database design, ERDs, relational databases, anomalies in database design, data modelling: conceptual/ logical/ physical, SQL for interrogating data and data drilling & analysis.

5. Statistical & Predictive Analysis
In months 7 and 8 you will learn about types of data analysis, statistics – measure of centre & measure of spread, normal distribution, outliers, descriptive analytics - numerical and categorical data, quantitative & qualitative analysis, hypothesis testing linear & logistic regression and clustering algorithms.

6. Time Series Analysis & Sharing the results
In months 9 and 10 you will learn about time series analysis, forecasting the data, methods for presenting results, Summarising and present the results of data analysis and creating dashboards, tailored reports.

7. AI and Machine Learning
In months 11 and 12 you will learn about Artificial Intelligence and Machine Learning. The importance of AI and machine learning in data analysis, neural networks, typical algorithms used in clustering analysis, fuzzy logic and evolutionary computation.

Before the training you will undertake tasks designed to allow you to develop an understanding of the theory so the techniques can be applied in practical sessions and after the training you will undertake a work-based task designed to develop your understanding of the tools and techniques used and how they are implemented in your workplace.

MONTHS 1-15 (In work settings)

In the Workplace
Begin your placement in the workplace, have an induction and start working on real world projects. You will receive 1 or 2 days off the job training per month to support your progress.

Project Agreement and EPA
Create final version of portfolio ready for EPA. Agree appropriate project from those suggested by EPAO to be completed during EPA.

Portfolio Development
Gather evidence for your portfolio documenting the projects you have worked on. Have regular progress reviews with your Skills Coach and Line Manager to review achievement of targets.

Project and Discussions
Complete End Point Assessment, working on a project and having two professional discussions with an external assessor one based on the project and the other on the portfolio.

In collaboration with

Reed {codenation}

For more information contact the Apprenticeships Team **apprenticeships@tscg.ac.uk**