

# Data Scientist Apprenticeship

MK:U



## Course overview

This course equips learners with practical skills in data analytics, machine learning, and AI. Apprentices gain the expertise to tackle real-world challenges and drive data-informed decision-making in organisations.

### Benefits for business

#### → Enhanced decision making

Equip your staff with advanced data skills to drive smarter, data-backed business strategies.

#### → Increased efficiency

Leverage AI and analytics to streamline processes and improve productivity.

#### → Future-proof expertise

Develop in-house experts ready to tackle evolving business challenges and stay ahead of the competition.

### Duration

32 months delivery + 3 months assessment

### Cost

Fully funded by the Apprenticeship Levy.

### Level

Level 6 - Degree Apprenticeship with an integrated BSc degree.

## Core skills

Machine Learning | Big Data | Artificial Intelligence | Strategic Data Analysis | Python Programming | Analytical Problem Solving





## Right for

### → Companies with data teams

Businesses that generate significant amounts of data.

### → Entry-level individuals

Solve data problems regardless of experience level. We'll build a strong foundation in areas like programming, maths and later machine learning.

### → Career changers

Whether you're from business, finance or another field, explore new opportunities in data.

### → Analytical thinkers

Hone your problem-solving skills with our focus on critical areas.

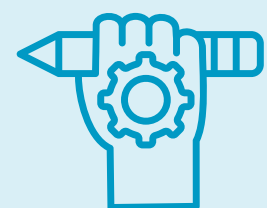
## Entry requirements

**96 UCAS points**, 3/C at A-level (or equivalent) or relevant experience.

## Why choose MK:U ?

### Hands-on

Real-world experience through industry-relevant projects and training.



### Problem-based

Case studies from diverse industries to ensure practical learning.



### Professional skills

Curriculum combining technical and soft skills essential for career success.



### Bespoke facilities

State-of-the-art facilities and extensive industry partnerships for specialised skill development.



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I can't praise MK:U enough for their thorough onboarding process where learners and line managers attend separate apprenticeship information sessions. The sessions were online walking each through their learning journey.

On a recent visit to MK:U the facilities were outstanding, and I found the learners fully engaged.

I would readily recommend MK:U to other employers to train their apprentices.

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**Sue Poulton**

Apprenticeship Manager  
Marston Holdings

# Course details

Modules are split between **in-person blocks** and **days live online**.  
■ – 10 day module   ■ – 1 day module  
■ – 5 day module   ■ – self directed

Year 1
<b>The Digital World</b> Introductory module exploring the synergies between technology, business, and leadership through interactive sessions on relevant topics e.g. programming, cyber security.
<b>Programming Foundations</b> Programming fundamentals, data handling and analytics, visualisation techniques, control flow and logic, functions and modularity, data structures, algorithms.
<b>Professional Skills 1</b> Develops career and personal skills, including emotional intelligence, creative thinking, personal branding, corporate social responsibility, and digital literacy.
<b>Data Analytics for Business Intelligence</b> Data Science Life Cycle, covering problem definition, data collection and processing, data analytics, and reporting and visualisation.
<b>Analytical Problem Solving</b> Essential analytical techniques and tools, including modelling and statistical concepts.
<b>Strategic Data Analytics</b> End-to-end analytics process, focusing on developing effective dashboards, analysing key business metrics, and communicating insights to stakeholders, in a strategic and impactful way.

Year 2
<b>Secure Data-Driven Solutions</b> Experience of each of the stages of the software development lifecycle. A number of cases will be explored to demonstrate a variety of approaches, and highlight the strengths and weaknesses of each approach.
<b>Machine Learning for Business Impact</b> Practical experience in data exploration, data management, and machine learning, bridging business requirements with technical solutions.
<b>Professional Skills 2</b> Develops leadership and professional skills, including negotiation, building high-performance teams, influencing others, and managing risk.
<b>Big Data and Cloud Computing</b> Big Data and cloud technologies, focusing on scalable data storage, processing, analytics, and visualisation.
<b>Business for Digital Professionals</b> How organisations function, including digital domain and the organisation’s environment. It will also address how digital advances are disrupting business and supporting societal goals.

Year 3
<b>Artificial Intelligence for Strategic Impact</b> Practical experience in machine learning and deep learning, developing modelling skills. Learners will explore the role of Data Scientist in the broader organisational environment and the Data Science Lifecycle.
<b>Professional Project</b> Plan, research and deliver a complex, workplace-relevant, Data Science project, supervised and mentored by academics to ensure high standards of applied knowledge.
<b>End Point Assessment</b> Demonstrate application of Knowledge, Skills and Behaviours through workplace projects.

**Book a meeting [to find out more](#)**