Level 4 Applied Data and AI Specialist.*

Our Level 4 Applied Data and AI Specialist apprenticeship goes beyond traditional data analysis by integrating cutting-edge AI methodologies directly into your team's workflow. Designed for immediate impact, employees will learn to automate and streamline data manipulation and reporting with AI-enhanced scripting. They'll also be empowered to solve real business challenges through AI-optimised decision-making tools. Learners will gain the practical, responsible AI skills needed to boost productivity, improve efficiency, and generate powerful business insights through smarter strategies with AI-enabled predictive analytics and forecasting. Build in-house AI capability today, and lead with intelligence tomorrow.

Who's it for?

This apprenticeship is ideal for people at the beginning of their professional journey with a foundational understanding of data handling. Learners should have a strong interest in data analysis and AI and want to develop specialised skills early in their careers. For those already working in roles with proficiency in data management or self-taught analytics, this programme offers structured learning to expand expertise in AI-driven data analysis and best practices.

Typical job roles for this apprenticeship include: Data Analyst, Business Intelligence Analyst, Market Research Analyst.

Business impacts

- Make sharper, faster decisions by exposing performance gaps through AI-powered analytics – turn insights into real outcomes
- Streamline operations with intelligent data tools that uncover inefficiencies, cut costs, and boost productivity
- Stay ahead of change by applying predictive insights that proactively shape strategy and fuel long-term, sustainable growth
- Accelerate responsiveness – automate data workflows and get from raw data to clear insight in record time
- Harness the power of Big Data to drive innovation, uncover untapped opportunities, and gain a competitive edge
- Embed a data-first culture that empowers teams, speeds up tech adoption, and drives enterprise-wide transformation

Built for performance

- Programmes designed and delivered by industry experts
- Dedicated Performance Coach, qualified in both coaching and their specialist subject area
- Backup from a multidisciplinary performance team
- Market-leading online live learning experience
- 24/7 access to programme materials, enrichment resources, study support and specialist insight via our virtual learning platform
- Mentoring, networking and peer support through BPP Community, including our Student Ambassador Network
- Learning pathways built using a 'stretch and challenge' model by design, meaning each learner is pushed to their maximum abilities
- Progression pathways that can take you from entry level to specialist expert
- Dedicated Functional Skills support if required

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*Subject to approval.

Programme overview.

Apprenticeship standard: Data Analyst

Cost: £15,000

Duration: 18 months

Entry requirements

As a minimum learners will need to have:

- Five GCSEs at grades 9 to 4 (A* to C), and
- Level 3 qualification in a relevant subject such as computer science/maths/applied sciences, earned through one or more A-Levels (or equivalent), or
- An equivalent professional certification in IT/computing/statistics/maths/engineering

For learners that do not have GCSE English and/or maths at grades 9 to 4 (A* to C):

- Learners aged 16-18 years must study and pass Functional Skills English and/or maths as part of the apprenticeship programme
- Learners aged 19 or above on the day they start the programme do not need to study or pass Functional Skills English and/or maths, unless required by their employer

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Prepare for the challenges of tomorrow

Get ahead of evolving workforce skills needs

Every BPP apprentice has access to our exclusive Emerging Skills programme.

Comprised of three bespoke courses, the programme combines expertise from BPP, Microsoft and xUnlocked to give learners essential knowledge and skills in the rapidly emerging areas of AI and sustainability.

- Available to all learners at no extra cost
- Accessible anytime, anywhere via our virtual learning platform
- Self-paced learning to fit into any busy schedule

xUnlocked

Programme contents

Generative AI Fundamentals (Four modules)

Developed by BPP's expert data scientists, this course offers an introduction to working with Generative AI effectively, safely and ethically.

Introduction to Sustainability (Six modules)

Developed in partnership with sustainability experts, xUnlocked, this course builds fundamental knowledge on sustainability and sustainable working practices.

Microsoft AI and Security Essentials (Seven modules)

This official Microsoft learning pathway is comprised of a core pathway on AI Essentials, followed by either an AI Fundamentals pathway or Security pathway. Dedicated Microsoft experts guide learners to gain Microsoft digital badges as they progress, with the option to gain a recognised Microsoft Certification on completion.

AI skills, *for all.*

Embedded AI training modules for every data and tech programme. Empowering every learner to drive AI-centric transformations within their business.

- Available to all learners at no extra cost
- Bespoke to BPP, developed by our expert data scientists
- Self-guided online learning to fit into any busy schedule
- Accessible anytime, anywhere via our virtual learning platform

Generative AI Foundations → Advanced Prompt Engineering → AI Strategy and Business Implementation → AI Tools, Platforms and Customisation

Knowledge and skills gained

Focusing on practical application of technical and non-technical AI skills, the modules explore AI's capacity to optimise structured interactions, align governance frameworks, and deploy scalable solutions, with a significant focus on ethical considerations and operational efficiency.

- Ability to design and implement complex prompts for diverse use cases
- Understanding and application of HITL techniques and fact-checking principles
- Ability to conduct prompt A/B testing
- Understanding of AI governance frameworks and compliance requirements
- Ability to adapt AI messaging for different stakeholders
- Ability to assess AI ecosystems
- Understanding of API-driven generative AI (GenAI) benefits

Tools

Large language models (LLMs)
(for example Copilot or Google Gemini)

No-code AI automation platforms
(no prior coding knowledge required)

Optional masterclasses

Live online sessions available every month

Example topics include:

- Data Leadership
- Ethical Hacking and Cyber Security
- Discovering and Analysing Market Trends
- Sustainable Technology and Green Computing
- Responsible AI
- Setting AI Strategy
- Emerging Landscapes – AI
- Quantum Computing Fundamentals

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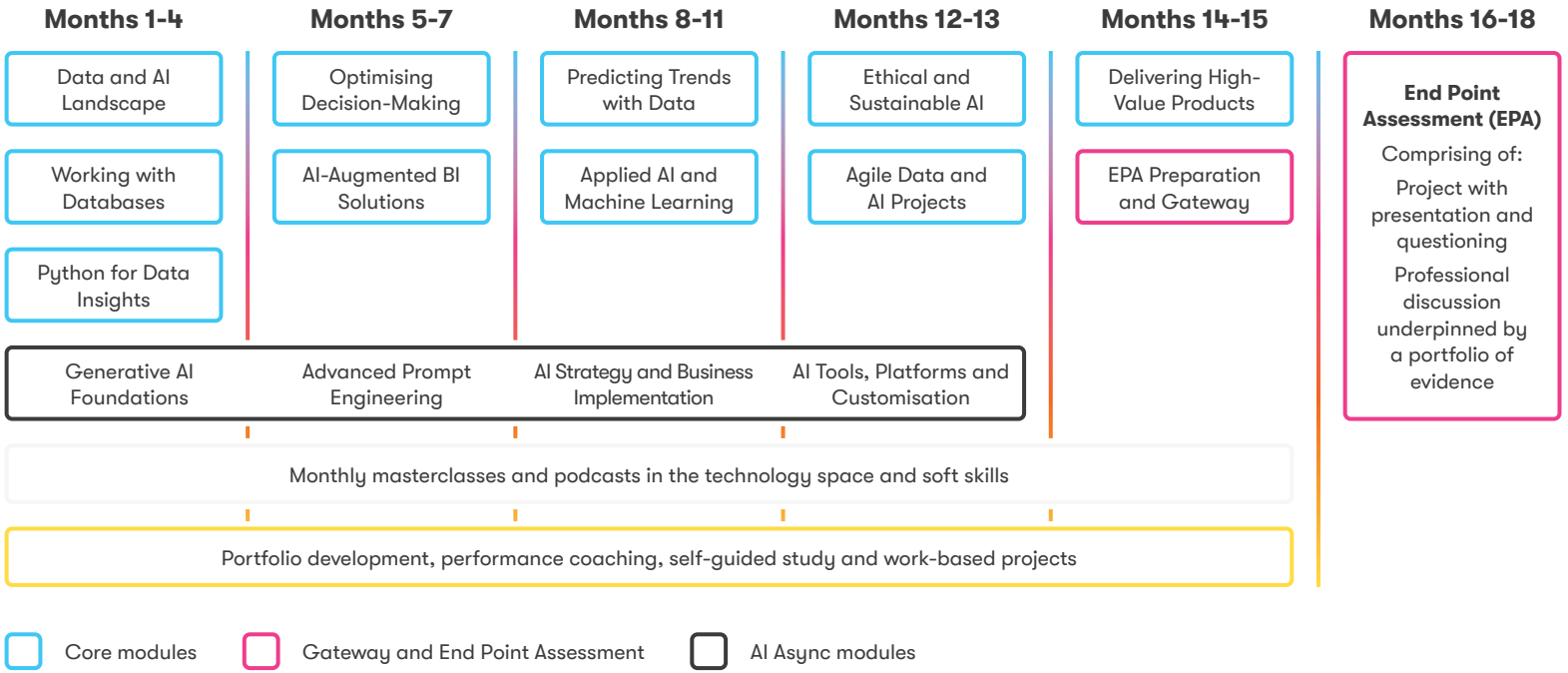
Level 4 Applied Data and AI Specialist.

Study mode

Online weekly: flexible learning that fits busy schedules, with two to three hours of online live lectures and seminars.

18-month programme (inc. EPA)



Core modules Gateway and End Point Assessment AI Async modules

Apprenticeship standard

Data Analyst

Delivered by

BPP

Time commitment**

- **15 months** on programme
- **174 hours** *(3 hours per week)* in online live training sessions *(58 sessions in total)*
- **3-4 hours** guided self-study, per module, via our virtual learning platform
- **1 hour** performance coaching session, every month
- **1 hour** progress review, every eight weeks
- **6 hours** per week in off-the-job learning, during working hours
- **1 hour** EPA preparation session
- **3 months** in End Point Assessment

**On average.

Programme modules.

Data and AI Landscape

Learners will explore the changing landscape of data analytics, covering industry roles, tools, and the current trends, such as AI-driven decision-making, that are shaping the profession.

- Data analytics life cycle
- Application of different types of analytics
- Data strategy and decision-making
- Big Data and AI
- Data maturity

Optimising Decision-Making

Learners will develop the skills to perform descriptive and diagnostic analytics.

- Excel, AI and data cleansing
- Descriptive statistics
- Problem solving
- Scenario modelling
- Decision frameworks

Predicting Trends with Data

Learners will explore the statistical and analytical techniques required to identify patterns, test hypotheses, and make predictions using data.

- Hypothesis testing
- Regression
- Time series forecasting
- AI and data pre-processing
- Model performance and evaluation

Working with Databases

Learners will develop foundational knowledge in database systems and organisational data infrastructure, focusing on data governance, security, and structured data management.

- Relational databases and SQL
- Joins, aggregations and conditional logic
- Automating data validation
- AI-enabled SQL

AI-Augmented BI Solutions

Learners will develop the skills to design, develop, and optimise business intelligence (BI) solutions by integrating AI-enhanced automation, data modelling, and visualisation techniques.

- Interactive dashboarding
- Data transformation
- Agentic AI
- UX

Applied AI and Machine Learning

Learners will develop the practical skills and theoretical knowledge to apply AI-driven machine learning techniques for classification, clustering, and natural language processing.

- Automated machine learning
- AI-assisted model selection
- Hyperparameter tuning

Python for Data Insights

Learners will be introduced to Python for data analytics, covering data manipulation, automation, and visualisation techniques.

- Pandas, NumPy, Matplotlib, and Seaborn
- Automating data processing
- Application programming interfaces (APIs)
- AI-enabled scripting and debugging
- Exploratory data analysis

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Programme modules.

Ethical and Sustainable AI

Learners will gain a comprehensive understanding of AI ethics, fairness, governance, and sustainability, ensuring responsible development and deployment of AI systems.

- Sustainable AI
- Ethical AI
- Responsible AI
- AI

Agile Data and AI Projects

Learners will explore the core principles of project management for data-driven initiatives.

- Project scopes
- Stakeholder requirements
- Project alignment and data life cycle
- Data security and compliance
- Agile project management

Delivering High-Value Products

Learners will synthesise and apply the knowledge and skills gained throughout the programme to develop and present a business-driven data solution.

- Requirements engineering
- Data products
- Insight delivery

AI Tools and Competencies

AI tools used on this programme:

- Excel
- Power BI
- Python
- SQL

Competencies gained with this programme include:

- AI-supported decision-making
- Using AI tools for scripting with GenAI and SQL
- AI scripting and debugging in Python
- Using Power BI AI features
- AI-supported forecasting using Python and Excel
- AI-assisted Natural Language Processing (NLP) and sentiment analysis

Required Tools

This course requires learners to have access to Microsoft Excel (ideally 2016 or later) and Power BI Desktop (free, no license required). Additionally, learners must have access to free generative AI (GenAI) tools such as OpenAI's ChatGPT, Google's Gemini, Anthropic's Claude, or Microsoft's Copilot.

As organisational policies on generative AI tools vary, learners must secure approval from their employer and confirm access before applying to this programme.

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