

| Course Title: BCS Artificial Intelligence (AI) Foundation              | Course Duration: 3.0 Days |
|--|---------------------------|
| Exam: Included   | Exam Type: Proctored Exam |
| Qualification: BCS Artificial Intelligence (AI) Foundation Certificate |                           |

# **Course Syllabus**

You will cover the following topics on our Artificial Intelligence (AI) Foundation training course:

### 1. An Introduction to AI and Historical Development

- 1.1 Identify the key definitions of key artificial intelligence terms.
- 1.2 Describe key milestones in the development of artificial intelligence.
- 1.3 Describe different types of Al.
- 1.4 Explain the impact of AI on society.
- 1.5 Describe sustainability measures to help reduce the environmental impact of Al.

### 2. Ethical and Legal Considerations

- 2.1 Describe ethical concerns, including bias and privacy, in Al.
- 2.2 Describe the importance of guiding principles in ethical Al development.
- 2.3 Explain strategies for addressing ethical challenges in Al projects.
- 2.4 Explain the role of regulation in Al.
- 2.5 Explain the process of risk management in AI.

### 3. Enablers of Artificial Intelligence

- 3.1 List common examples of AI.
- 3.2 Describe the role of robotics in Al.
- 3.3 Describe machine learning.
- 3.4 Identify common machine learning concepts.
- 3.5 Describe supervised and unsupervised learning.

## 4. Finding and Using Data in Artificial Intelligence

- 4.1 Describe key data terms.
- 4.2 Describe the characteristics of data quality and why it is important in Al.
- 4.3 Explain the risks associated with handling data in AI and how to minimise them.
- 4.4 Describe the purpose and use of big data.
- 4.5 Explain data visualisation techniques and tools.
- 4.6 Describe key generative AI terms.
- 4.7 Describe the purpose and use of generative AI including large language models.
- 4.8 Describe how data is used to train AI in the Machine Learning process.

### 5. Using AI in Your Organisation

- 5.1 Identify opportunities for AI in your organisation.
- 5.2 List the contents and structure of a business case.
- 5.3 Identify and categorise stakeholders relevant to an Al project.
- 5.4 Describe project management approaches.
- 5.5 Identify the risks, costs and benefits associated with a proposed solution.
- 5.6 Describe the ongoing governance activities required when implementing Al.

### 6. Future Planning and Impact - Human Plus Machine

- 6.1 Describe the roles and career opportunities presented by AI.
- 6.2 Identify AI uses in the real world.
- 6.3 Explain Al's impact on society, and the future of Al.
- 6.4 Describe consciousness and its impact on ethical AI.

### **Course Overview**

Our three-day Artificial Intelligence (AI) Foundation training course will teach you the building blocks of AI and how to use your newfound understanding of Machine Learning.

Our Artificial Intelligence (AI) Foundation training course is a fantastic opportunity to engage with AI Expert - Dr Andrew Lowe. You will learn about AI, Machine Learning and Neural Networks and be able to apply your knowledge to your current or future career.

### **Course Learning Outcomes**

**BCS Membership Offer:** If you do not hold a BCS certification and successfully pass the examination for this training course - you will be given one year's complementary BCS Membership. This offer is only valid for your first BCS qualification.



Throughout the Artificial Intelligence (AI) Foundation training course, demonstrations will be presented using standard open-source software and cloud services. You will explore AI and technological requirements to develop a machine learning portfolio and continue with self-study beyond the scope of this course.

### **Audience**

The target audience for our Artificial Intelligence (AI) Foundation training course is comprised of individuals with an interest in (or need to implement) AI in an organisation. We specifically target and attract those working in areas such as science, engineering, knowledge engineering, finance, or IT services.

Below is a list of roles who would benefit most from taking this course, though anyone interested in AI is welcome:

- Engineers
- Scientists
- Professional Research Managers
- Chief Technical Officers
- Chief Information Officers
- Organisational Change Practitioners & Managers
- Business Change Practitioners & Managers
- Service Architects & Managers
- Program & Planning Managers
- Al Project Managers
- Service Provider Portfolio Strategists / Leads
- Process Architects & Managers
- Business Strategists & Consultants
- Web Page Developers
- Al Researchers
- Al Engineers
- Al Data Analysts
- Data Scientists
- Machine Learning Engineers
- Deep Learning Engineers
- Robotics Scientists
- Big Data Engineers
- Business Intelligence Developers
- Research Scientists
- Product Managers
- User Experience (UX) Designers / Developers
- Natural Language Processing Engineers

## **Entry-Level Requirements**

There are no prerequisites for attending our Artificial Intelligence (AI) Foundation training course.

## **Recommended Reading**

Once the Al Body Of Knowledge has been completed, reviewed, and published - it will be released to delegates prior to course commencement.



### What's Included

You will be provided with full course materials for our Artificial Intelligence (AI) Foundation certification training course.

### **Exam Information**

### **BCS Artificial Intelligence (AI) Foundation Examination:**

• Exam Duration: 60 Minutes

• Exam Format: Closed Book, 40 Multiple Choice Questions

• Exam Delivery: Online, Webcam Proctored

• Exam Pass Mark: 26/40

### **Candidate Responsibilities**

- You need to complete registrations for both BCS and Questionmark.
- You will receive an email inviting you to register on the e-professional portal. Once you have completed this registration, you will
  be able to see the booking details that your training provider had given to BCS.
- The exam date and time may not reflect what you will book with Questionmark, but we will update this once the exam has taken place so your certificate will have the correct date.
- You will also receive an email with log in details for Questionmark. This will enable you to complete your registration and book your exam. The link for registering is here.
- If you are unable to see an assessment to schedule once you have registered, please contact BCS via customerservice@bcs.uk.
- If you're unable to select a remote proctored time and date, contact support@questionmark.com.

### **Create Proctor Session**

- To select the exam date and time click on 'Schedule'. If you have multiple exams to schedule it is advised that you only schedule the exam you wish to take otherwise you may encounter an error 500 screen.
- If you do encounter this then please clear your browser cache before proceeding.

#### What's Next

You can see the fulL BCS Artificial Intelligence (AI) Framework below:

### **BCS Accredited Artificial Intelligence Training Courses Choices**



How Does The AI Foundation Pathway Work?

Choose from 12 awards set within four key areas of Al: Artificial Intelligence (Al) Business Innovation, Artificial Intelligence (Al) Data, Artificial Intelligence (Al) Ethics, Machine Learning And Other Al Techniques Each of the 12 awards is a qualification in its own right, carrying between 3 and 5 credits.

You can also top up you existing **AI Foundation Certificate** to a **BCS Diploma in AI** 

By taking four awards (20 credits), one in each key area, you'll gain the BCS Artificial Intelligence (AI) Foundation. Continue further along the pathway, by taking eight awards (36 credits) you can achieve a Foundation Diploma in AI.



## **Additional Information**

We hope that you have enjoyed our Artificial Intelligence (AI) Foundation training course and that it has added value to your career and prospects. If you have any further questions or training requirements, please do reach out to us.