

<b>Course Title:</b> Artificial Intelligence (AI) Foundation	<b>Course Duration:</b> 3.0 Days
<b>Exam:</b> Included	<b>Exam Type:</b> Classroom Exam
<b>Qualification:</b> BCS Artificial Intelligence (AI) Foundation Certificate	

## Course Syllabus

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

### Syllabus & Learning Objectives

#### 1. Ethical And Sustainable Human And Artificial Intelligence (25%)

After this section of the Artificial Intelligence (AI) Foundation training course is complete, you will gain an understanding of the following:

- Recall the general definition of Human Intelligence and Artificial Intelligence
- Make parallels between 'learning from experience' and Machine Learning (ML) via Tom Mitchell's definition
- Understand that ML is a significant contribution to the growth of AI
- Describe how AI is part of Universal Design and The Fourth Industrial Revolution
- Describe a modern approach to human logical levels of thinking using Robert Dilts' Model.
- Describe the three fundamental areas of sustainability.

#### 2. Applying the Benefits, Challenges, And Risks of Machine Learning (30%)

At the end of this section, you will have completed over half of the course material. By now, and in combination with what you've learned in the previous section about AL and ML, you will be able to apply and understand the following:

- Explain the benefits of Artificial Intelligence
- List advantages of machine and human-machine systems
- Describe the challenges of Artificial Intelligence
- General examples of AI limitations compared to human systems
- General ethical challenges AI raises
- Demonstrate understanding of the risks of Artificial Intelligence
- Give at least one general example of the risks of AI
- Identify a typical funding source for AI projects
- List opportunities for AI
- Describe how sustainability relates to AI and how our values will drive the use of AI and change our society.

#### 3. An Introduction To Machine Learning Theory And Practice (35%)

After this section of the Artificial Intelligence (AI) Foundation training course is complete, you will be able to apply your knowledge from the previous sections and understand the following:

- Demonstrate an understanding of the AI intelligent agent description
- Identify the differences between AI and ML
- List the four rational agent dependencies

- Describe agents in terms of performance measure, environment, actuators, and sensors
- Describe four types of agent: reflex, model-based reflex, goal-based, and utility-based
- Give typical examples of Machine Learning in the following contexts: Business, Social (Media, Entertainment), Science
- Recall which typical, narrow AI capability is useful in ML and AI agents' functionality
- Recall the basic theory of ML
- Describe the basic schematic of a neural network
- Know how to build a practical Machine Learning Toolkit

#### 4. The Management, Roles And Responsibilities Of Humans And Machines. (10%)

Completing this section finalises your understanding of all aspects required to pass the Artificial Intelligence (AI) Foundation certificate. In this final section, you will understand:

- Demonstrate an understanding that Artificial Intelligence (in particular, Machine Learning) will drive humans and machines to work together
- List future directions of humans and machines working together
- Describe a 'learning from experience' Agile approach to projects
- Describe the type of team members needed for an Agile project

## Course Overview

**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.

Our three-day Artificial Intelligence (AI) Foundation training course is accredited by BCS, The Chartered Institute For IT. The Artificial Intelligence (AI) Foundation certification will teach you the building blocks of AI and how to use your newfound understanding of Machine Learning.

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.

## Course Learning Outcomes

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.

## 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 and Managers; Business Change Practitioners & Managers; Service Architects and Managers; Program & Planning Managers; Service Provider Portfolio Strategists & Leads; Process Architects & Managers; Business Strategists & Consultants; Web Developers

## Entry-Level Requirements

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

## Recommended Reading

Once the AI 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

### Artificial Intelligence (AI) Foundation Certification Exam:

The BCS Artificial Intelligence (AI) Foundation examination will consist of the following:

- One-Hour Closed Book Exam
- 40 Multiple-Choice Questions
- The Pass Mark Is 26/40

## What's Next

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

## 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.