PURPLE GRIFFON
The IT Service Management Training & Consultancy Specialists

Course Title: BCS Foundation Award - Machine Learning	**Course Duration**: 3.0 Days
Exam: Included	**Exam Type**: Proctored Exam
Qualification: BCS Foundation Award - Machine Learning	

Course Syllabus

1. What Is Machine Learning?

You will be able to:

1.1 Define Machine Learning.
1.2 Explain different applications of Machine Learning.
1.3 Describe the role of a Learning Agent.
1.4 Explain the concept of Deep Learning
1.5 Describe the purpose of a Neural Network.
1.6 Illustrate how Machine Learning compliments Knowledge-Based Systems
1.7 Explain the process through which Machine Learning works with Data.

2. Coding For Machine Learning

You will be able to:

2.1 Explain the use of at least one coding language used in machine learning.
2.2 Identify common open source and proprietary software used in coding for Machine Learning.

3. Algorithms Used In Machine Learning

You will be able to:

3.1 Explain the use of mathematics in enabling a machine to solve numerical problems.
3.2 List and describe typical algorithms used in Machine Learning
3.3 Describe Supervised, Unsupervised and Semi-Supervised learning

4. Machine Learning In Practice

You will be able to:

4.1 Describe a particular problem that can be addressed through the use of Machine Learning
4.2 Outline typical tasks required in the preparation of data for developing a particular application of Machine Learning.
4.3 Explain the process of training a Machine Learning model.
4.4 Explain the process of testing a Machine Learning model
4.5 Discuss how to evaluate the results of testing in order to identify the information to be shared

Course Overview

Our three-day BCS Foundation Award - Machine Learning training course is designed for those wishing to gain an understanding of the principles of Machine Learning and the process through which it can be developed.

Our BCS Foundation Award - Machine Learning training course explores what Machine Learning is and how it is used in practice. It provides an introduction into the different types of Machine Leaning and the tools and techniques required to develop it, including a basic introduction to algorithms.

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.

This award sits within the **Machine Learning & Other AI Techniques** area of the AI Foundation Pathway and offers an essential technical education to support your next career move.

You'll learn about:

- What Machine Learning Is
- Coding For Machine Learning
- Algorithms Used In Machine Learning
- Machine Learning In Practice

Audience

- Those who need to develop their understanding of the more technical aspects of AI or gain insight into one of its component parts
- Business professionals looking to transition their career into a role which encompasses AI
- Individuals with an interest in AI and a background in science, engineering, knowledge engineering, finance, education or IT services

Entry-Level Requirements

There are no specific entry requirements for this award. However, some professional experience in a business or IT environment may be advantageous.

Recommended Reading

The following titles are suggested reading for anyone undertaking this award. You should be encouraged to explore other available sources.

Title: Hands-On Machine Learning with Scikit-Learn and TensorFlow: Concepts, Tools, and Techniques to Build Intelligent Systems
Author: Aurélien Géron
Publisher: O'Reilly
Publication Date: 2017
ISBN: 1491962291

What's Included

- BCS Foundation Award - Machine Learning Materials
- BCS Foundation Award - Machine Learning Examination

Exam Information

BCS Foundation Award - Machine Learning Examination:

- Type: 16 Multiple Choice Questions, 2 Scenario Based Questions
- Duration: 30 Minutes
- Supervised: Yes
- Open Book: No (no materials can be taken into the examination room)
- Pass Mark: 13/20 (65%)
- Delivery: Digital Format Only.

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

Other Machine Learning & Other AI Techniques awards in the AI Foundation Pathway include:

- BCS Foundation Award - Knowledge-Based Systems
- BCS Foundation Award - Smart Products, Robotics And Automation
- BCS Foundation Award - AI And The Digital Eco System

Additional Information

The term "Machine Learning" has increased in popularity in the last decade and is a technology which is becoming more commonly used within many organisations. With its ability to help solve business problems and develop new customer experiences, there is now a greater demand for individuals with the knowledge and skills to support organisations to successfully implement the technology to deliver improvements.

Our BCS Foundation Award - Machine Learning training course will enable you to understand these concepts at a foundation level, enabling them to be better informed and equipping them with knowledge which they build upon through further study and application.