PURPLE GRIFFON
The IT Service Management Training & Consultancy Specialists

Course Title: BCS Foundation Award - Knowledge Based Systems	**Course Duration**: 3.0 Days
Exam: Included	**Exam Type**: Proctored Exam
Qualification: BCS Foundation Award - Knowledge Based Systems	

Course Syllabus

1. Introduction To Knowledge-Based Systems

You will be able to:

1.1 Describe how a Knowledge-Based System works and its role within an AI solution
1.2 Explain the difference between knowledge-based intelligence and computational intelligence
1.3 Explain how a Knowledge-Based System complements Machine Learning.
1.4 List examples of Knowledge-Based Systems.

2. Rules

You will be able to:

2.1 Explain the use of rules within a Knowledge-Based System.
2.2 List examples of statements used within rules.
2.3 Explain the difference between forward chaining and backward chaining
2.4 Discuss why you might make use of AI to create a digital ecosystem as a driver or enabler.

3. Case-Based Reasoning

You will be able to:

3.1 Describe the use of case-based reasoning
3.2 List the stages of case-based reasoning.

4. Uncertainty

You will be able to:

4.1 Explain the concept of uncertainty in Knowledge-Based Systems.
4.2 Describe the use of Fuzzy Logic.

5. The Inference Engine

You will be able to:

5.1 Explain the role of the Inference Engine.
5.2 Describe how the inference engine uses rules to derive facts.
5.3 Describe knowledge-based systems in relation to intelligent agents

Course Overview

Our three-day BCS Foundation Award - Knowledge Based Systems training course is designed for anyone wishing to gain an understanding of the principles of Knowledge-Based Systems and how they can be used to complement other AI technologies such as Machine Learning.

Our BCS Foundation Award - Knowledge Based Systems training course will also enable you to understand the concept of Uncertainty and Fuzzy Logic, and how Knowledge Based Systems can be used to help organisations to make decisions and act where there is higher level of uncertainty.

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 And Other AI Techniques** area of the AI Foundation Pathway offering you core knowledge and a defined progression route to a technical career in AI.

You'll learn about:

- An Introduction To Knowledge Based Systems
- Rules Of Knowledge Based Systems
- Case-Based Reasoning
- Uncertainty
- The Interface Engine

Audience

- Digital professionals who need to build their technical knowledge in AI or gain insight into an individual component
- Those aiming to move into a career working with artificial intelligence
- 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: Knowledge-Based Systems
Author: Rajendra Akerkar, Priti Sajja
Publisher: Jones & Bartlett Learning, 2010
Publication Date: 30th Aug 2010

ISBN: 0763776475, 9780763776473

What's Included

- BCS Foundation Award - Knowledge Based Systems Materials
- BCS Foundation Award - Knowledge Based Systems Examination

Exam Information

BCS Foundation Award - Knowledge Based Systems Examination:

- Type: 18 Multiple Choice Questions, 1 Scenario Based Question
- 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 - AI And The Digital Eco System
- BCS Foundation Award - Smart Products, Robotics And Automation
- BCS Foundation Award - Machine Learning

Additional Information

Knowledge-Based Systems are designed to capture human expertise in order to enable AI applications to make intelligent decisions.

Through completion of this award candidates will have the ability to recognise Knowledge-Based Systems, gain an understanding of how they work, and consider how they can add value to an organisation.

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Our BCS Foundation Award - Knowledge Based Systems training course will teach you about knowledge-based systems, what they are, how they work, how they complement machine learning, and how they deal with uncertainty, so you're able to recognise when and where they add value.