Course Title – BCS Foundation Award – Big Data	**Course duration –** 1 day
Exam - included	**Exam type - I**nvigilated
Qualification – BCS Foundation Award – Big Data	

Course Syllabus

1. What is Big Data?

1.1 Define Big Data.
1.2 Describe the difference between data and Big Data.
1.3 Explain the different types of data structures and what can be included within each type.
1.4 Explain the need for a Big Data strategy.

2. Working with a Big Data framework

2.1 Explain the need for a Big Data framework/network.
2.2 Identify Big Data frameworks and the benefits of using them.
2.3 Explain the need for data architecture.

3. Big data analytics

3.1 Identify Big Data analytics.
3.2 Explain why data analytics is important.

4. Big data and machine learning

4.1 Describe why Machine Learning needs Big Data.
4.2 Explain how Machine Learning uses Big Data.
4.3 Illustrate the challenges of Big Data.

Course Overview

Big Data has the potential to enable organisations to gain a much greater insight into the market in which they operate and empower them to make better business decisions. As such there is an increasing demand for individuals with the knowledge and the skills to analyse and make use of Big Data. This award will enable you to understand how to manage Big Data and its use with Machine Learning.

Our course will help you to explore the terminology, general principles, concepts and approaches related to the management of Big Data. This includes the relationship between data and information, as well as an understanding of Big Data frameworks (including Hadoop) and applicable solutions.

Learning Outcomes

Upon completion of the award, you will be able to demonstrate:

- What is Big Data?
- Working with a Big Data framework
- Big data analytics
- Big data and machine learning

Who should attend?

This award is suitable for any individual wishing to understand the opportunities presented by AI and how these can benefit an organisation.

Entry-Level Requirements

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

What's included?

1 day in-person classroom training or 1-day virtual online training

Exam information

This award is assessed through completion of an invigilated online exam which candidates will only be able to access at the date and time they are registered to attend.

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)
Passmark	13/20 (65%)
Delivery	Digital format only

Adjustments and/or additional time can be requested in line with the BCS reasonable adjustments policy for candidates with a disability, or other special considerations, including English as a second language.

Qualifications

BCS Foundation Award – Big Data

What else?

This award has been created alongside a selection of other awards available from BCS, which offer candidates a clear pathway of progression into other disciplines of IT. This makes it ideally suited for those looking for a change of career, an upskilling workforce, and sustainable employers.

This award counts towards achieving your Foundation Certificate in AI and/or your Foundation Diploma in AI.

To receive the Foundation Certificate in AI you need to achieve **four awards** – one award from each of the categories

1. **Business innovation**
2. **Data**
3. **Ethics**
4. **Machine learning and other AI techniques**

To receive the Foundation Diploma in AI you need to **achieve eight awards in total** – one or more award from each of the categories

The courses are as follows:

- **How AI can support your organisation**
- **How to manage risk**
- **Understanding the problem and implementing the solution**
- **Understanding data in your organisation**
- **Big Data**
- **Data visualisation**
- **Understanding ethical principles in the IT profession**
- **Understanding the role of ethics in the responsible use of AI**
- **AI and the digital ecosystem**
- **Knowledge-based systems**
- **Smart products, robotics and automation**
- **Machine learning**
- **Generative AI**