BCS* Essentials Certificate in Artificial Intelligence (AI)
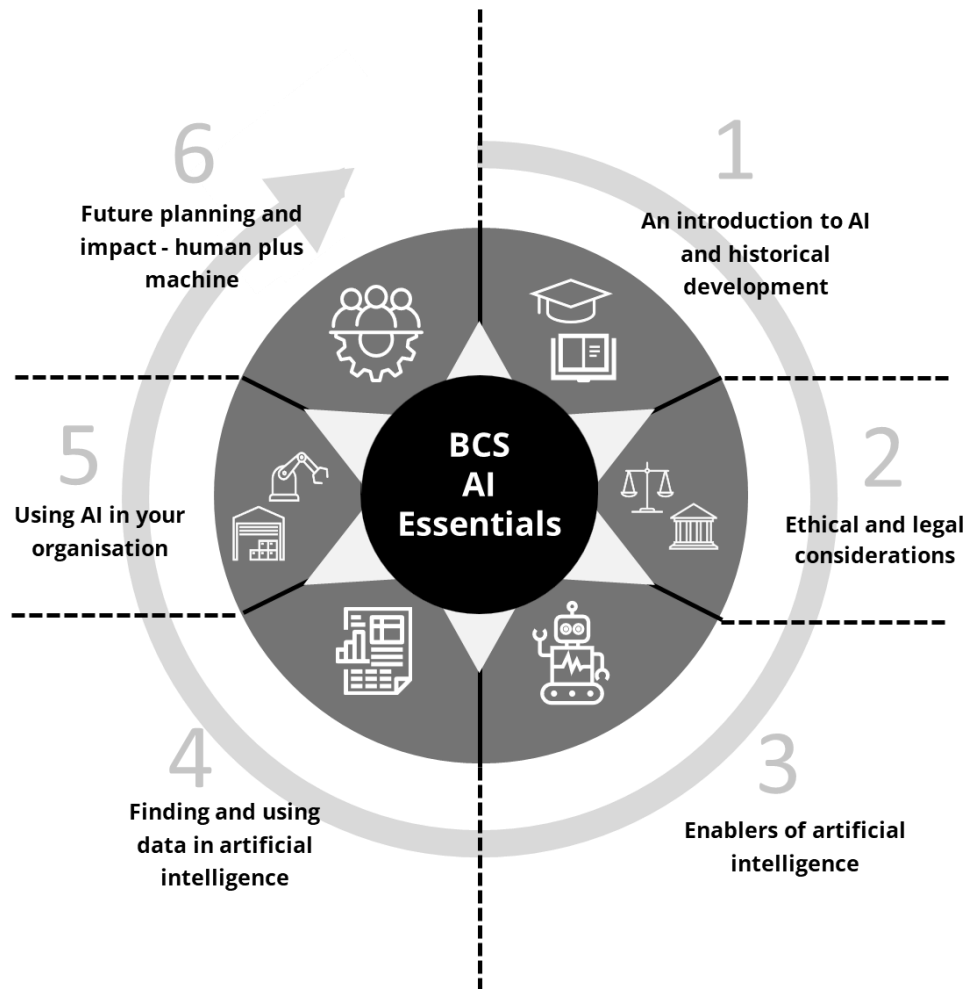
British Computer Society

BCS Essentials Certificate in AI

6 Future planning and impact - human plus machine

5 Using AI in your organisation

4 Finding and using data in artificial intelligence

BCS AI Essentials

1 An introduction to AI and historical development

2 Ethical and legal considerations

3 Enablers of artificial intelligence

Who is this for?

- Individuals with an interest in (or a need to implement) AI in an organisation, especially those working in areas such as science, engineering, knowledge engineering, finance, or IT services.

- Middle and senior managers running or assembling teams to create AI dependent applications and services, that need to understand the context of AI in an industrial setting.

Benefits for Individuals

- **Ideal for beginners:** No prior AI knowledge required—.
- **Industry-Relevant Knowledge**: Covers key AI concepts, terminology, and tools used in real-world applications.
- **Career Enhancement**: Opens doors to emerging roles in AI and enhances AI skills relevant to all job roles.
- **Future-Proof Skills**: Equips learners with foundational understanding of AI's impact on society, business, and technology.
- **Ethical Awareness**: Builds understanding of legal, ethical, and governance issues in AI.
- **Practical Application**: Encourages identification of AI opportunities within organisations and projects.
- **Recognised Certification**: Awarded by BCS, The Chartered Institute for IT—boosts CV and professional credibility.

Benefits for Employers

- **Upskilling Workforce**: Empowers staff with essential AI knowledge to support digital transformation.
- **Improved Decision-Making**: Enhances understanding of data quality, machine learning, and AI-driven insights.
- **Ethical Compliance**: Promotes awareness of AI governance, risk management, and regulatory frameworks.
- **Boosts Innovation**: Encourages exploration of automation, generative AI, and robotics to streamline operations.
- **Supports Strategic Planning**: Helps teams anticipate future AI trends and integrate human-machine collaboration.
- **Cross-Functional Relevance**: Valuable for roles across the organisation from IT to Customer contact, HR to Finance.

How will the programme be delivered?

Learners will be required to attend four half-day workshops, which can be delivered either online via Microsoft Teams or face-to-face at the ALS Training Centre in Ocean Park Way, Cardiff. In addition, learners must complete self-study and sit an exam.

The programme includes:

- 3 × Half-day tutor-led knowledge workshops (online or face-to-face)

- 1 × Half-day exam preparation workshop, followed by the multiple-choice exam

- Approximately 23 hours of self-study/revision to prepare for the exam

When registering interest via the link provided, individuals or employers should indicate their preferred delivery method.
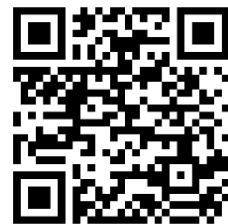
Where employers can provide a minimum group size of 15 learners, the full training and examination can be delivered at the employer's premises. In this case, delivery would take place over two full days across two weeks (e.g., two consecutive Mondays or Tuesdays).

Exam details*

- Length: 30 minutes
- Format: Multiple choice
- Number of questions: 20
- Pass mark: 65% (13/20 correct answers)

For remote examinations, learners will require a laptop with a built-in camera or a separate webcam

To register your interest please **click here** or scan the QR code

Additional information for those attending the ALS Centre:

- Free on-site parking available

- On-site café for refreshments

Delivery Schedule

Session 1 – 3 Hours	
History and development of AI	Charting development of AI from its infancy to the present day and charting the key milestones
What is AI	Defining AI, how it differs from human intelligence, the types of AI and the key terminology used to describe the elements of an AI system
AI Ethics	The importance of ethics in the development and use of AI and the ethical concerns that must be addressed by the AI industry and those who utilise AI.
Law relating to AI	UK legal frameworks that apply to AI, and how these impact on the development and us of AI systems.
Future planning and impact of AI	How AI is being used in the real world, common AI tools and their applications. The impact of AI use on society now and in the future. Future developments in AI
AI and the future of work	How AI is and will change the jobs market in the UK. Job roles in the development of AI and how AI skills enhance employability.
Session 2 – 3 Hours	
How machines learn	Exploring the concepts of machine learning, what it is and what it can do. Neural networks and principles of deep learning and the process driving Machine Learning models.
Data, information systems and AI	How information systems and data relate to AI. Key terminology and data concepts we need to know, how data is used in machine learning and in the Large Language Models of generative AI systems.
Exploring Data quality	Why does the quality of data matter, the characteristics of data quality, the risks associated with information systems and data analysis?

Session 3 – 3 Hours	
AI at work	Examples of AI in the workplace and how AI is being used
AI and Robotics	What is robotics and what are the different types of robotics in use. How the disciplines of AI and robotics combine. Future developments in robotics and AI
AI in your organisation	How could AI be used in your organisation to improve productivity and automate processes. An overview of the project management approaches commonly used to implement AI solutions and organisational good governance to ensure AI is used appropriately.
Self-Study and Revision – at least 23 hours	
Self-Directed Study	Review the content of your workshops, the support material you have been provided and further research AI using online tools and resources.
Session 4 Exam Prep and Examination – 3 Hours	
Exam Preparation	Spend time with your tutor reviewing the course content and preparing for the examination.
Mock Exam	A chance to prepare further by completing a series of multiple-choice questions like those you may encounter in your exam.
Exam	30 minutes to complete 20 questions under exam conditions without access to notes or internet resources.