Artificial Intelligence (AI) Foundation + Exam

Duration: 3 Days   Course Code: AIF

Overview:

Take the next step in developing your knowledge and understanding of Artificial Intelligence with this training.
Learn the general principles of AI, its potential implications and capabilities and how to assess AI products and services from multiple angles.
Examples of AI have been in the news a lot lately, it started with chatbots like Google Assistant and now ChatGPT. Of course, AI is much more than just chatbots, yet we will also discuss this to learn the do's and don't of this.
This 3-day course covers the potential benefits; types of Artificial Intelligence (AI); the basic process of Machine Learning (ML); the challenges and risks associated with an AI project, and the future of AI and People at Work.

Target Audience:

The Artificial Intelligence Foundation certificate is aimed at individuals with an interest in (or need for) AI in an organisation, particularly those working in areas such as science, engineering, knowledge technology, finance or IT services.
The following job roles are mostly eligible;
Engineers Scientists Professional research managers Chief technical officers Chief information officers Organizational change practitioners and managers Business change practitioners and managers Service architects and managers Program and planning managers Service provider portfolio strategists / leads Process architects and managers Business strategists and consultants Web page developers

Objectives:

- Describe how Artificial Intelligence (AI) is Part of 'Universal Design,' and 'The Fourth Industrial Revolution'

- Demonstrate Understanding of the Artificial Intelligence (AI) Intelligent Agent Description

- Explain the Benefits of Artificial Intelligence (AI)

- Describe how we Learn from Data – Functionality, Software and Hardware

- Demonstrate an Understanding that Artificial Intelligence (AI) (in Particular, Machine Learning (ML)) will Drive Humans and Machines to Work Together

- Describe a 'Learning from Experience' Agile Approach to Projects

Prerequisites:

No specific prior knowledge is required.

Testing and Certification

Successful completion of the EXIN BCS Artificial Intelligence Foundation exam.

Examination Details

- Examination type: Multiple-choice Questions
- Number of questions: 40
- Pass mark: 65%
- Open book/notes: No
- Electronic equipment/aides permitted: No
- Exam duration: 60 minutes

Content:

1 Ethical and Sustainable Human and Artificial Intelligence (AI)

1.1 Recall the General Definition of Human and Artificial Intelligence (AI)

The candidate can…

1.1.1 describe the concept of intelligent agents.

1.1.2 describe a modern approach to Human logical levels of thinking using Robert Dilt's Model.

1.2 Describe what are Ethics and Trustworthy Artificial Intelligence (AI), in Particular:

The candidate can…

1.2.1 recall the general definition of Ethics.

1.2.2 recall that a Human Centric Ethical Purpose respects fundamental rights, principles and values.

1.2.3 recall that Ethical Purpose AI is delivered using Trustworthy Artificial Intelligence (AI) that is technically robust.

1.2.4 recall that the Human Centric Ethical Purpose Trustworthy Artificial Intelligence (AI) is continually assessed and monitored.

1.3 Describe the Three Fundamental Areas of Sustainability and the United Nation's Seventeen Sustainability Goals

1.4 Describe how Artificial Intelligence (AI) is Part of 'Universal Design,' and 'The Fourth Industrial Revolution'

1.5 Understand that Machine Learning (ML) is a Significant Contribution to the Growth of Artificial Intelligence (AI)

The candidate can…

2.1.3 describe four types of agent: reflex, model-based reflex, goal-based and utility-based.

2.1.4 identify the relationship of Artificial Intelligence (AI) agents with Machine Learning (ML).

2.2 Describe what a Robot is and:

The candidate can…

2.2.1 describe robotic paradigms

2.3 Describe what an Intelligent Robot is and:

The candidate can…

2.3.1 relate intelligent robotics to intelligent agents.

3 Applying the Benefits of Artificial Intelligence (AI) – Challenges and Risks

3.1 Describe how Sustainability Relates to Human-Centric Ethical Artificial Intelligence (AI) and how our Values will Drive our use of Artificial Intelligence (AI) and will Change Humans, Society and Organizations

3.2 Explain the Benefits of Artificial Intelligence (AI) by:

The candidate can…

3.2.1 list advantages of machine and human and machine systems.

3.3 Describe the Challenges of Artificial Intelligence (AI), and:

The candidate can…

3.3.1 give examples of general ethical challenges Artificial Intelligence (AI) raises.

3.3.2 give general examples of the limitations

3.4.3 describe a domain expert.

3.4.4 describe what is 'fit-of-purpose'.

3.4.5 describe the difference between waterfall and agile projects.

3.5 List Opportunities for Artificial Intelligence (AI)

3.6 Identify a Typical Funding Source for Artificial Intelligence (AI) Projects and Relate to the NASA Technology Readiness Levels (TRLs)

4 Starting Artificial Intelligence (AI): how to Build a Machine Learning (ML) Toolbox – Theory and Practice

4.1 Describe how we Learn from Data – Functionality, Software and Hardware

The candidate can…

4.1.1 list common open source machine learning functionality, software and hardware.

4.1.2 describe introductory theory of Machine Learning (ML).

4.1.3 describe typical tasks in the preparation of data.

4.1.4 describe typical types of Machine Learning (ML) Algorithms.

4.1.5 describe the typical methods of visualizing data.

4.2 Recall which Typical, Narrow Artificial Intelligence (AI) Capability is Useful in Machine Learning (ML) and Artificial Intelligence (AI) Agents' Functionality

5 The Management, Roles and Responsibilities of Humans and Machines

5.1 Demonstrate an Understanding that

1.5.1 describe 'learning from experience' and how it relates to Machine Learning (ML) (Tom Mitchell's explicit definition).

2 Artificial Intelligence (AI) and Robotics

2.1 Demonstrate Understanding of the Artificial Intelligence (AI) Intelligent Agent Description, and:

The candidate can…

2.1.1 list the four rational agent dependencies.

2.1.2 describe agents in terms of performance measure, environment, actuators and sensors.

of Artificial Intelligence (AI) systems compared to human systems.

3.4 Demonstrate Understanding of the Risks of Artificial Intelligence (AI) Projects, and:

The candidate can…

3.4.1 give at least one a general example of the risks of Artificial Intelligence (AI).

3.4.2 describe a typical Artificial Intelligence (AI) project team in particular.

Artificial Intelligence (AI) (in Particular, Machine Learning (ML)) will Drive Humans and Machines to Work Together

5.2 List Future Directions of Humans and Machines Working Together

5.3 Describe a 'Learning from Experience' Agile Approach to Projects

The candidate can…

5.3.1 describe the type of team members needed for an Agile project.

Further Information:

For More information, or to book your course, please call us on Head Office 01189 123456 / Northern Office 0113 242 5931

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