

Szkolenie: HPE  
Artificial Intelligence Foundation



## Cel szkolenia:

Artificial Intelligence (AI) is a methodology for using a nonhuman system to learn from experience and imitate human intelligent behavior. This training covers the potential benefits and challenges of ethical and sustainable robust Artificial Intelligence (AI); the basic process of Machine Learning (ML) – Building a Machine Learning (ML) Toolkit; the challenges and risks associated with an AI project, and the future of AI and Humans in work. This course prepares for the EXIN BCS Artificial Intelligence Foundation certification

### Course objectives

In this course, students will learn to:

- 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

### Audience

The EXIN BCS Artificial Intelligence Foundation certification is focused on individuals with an interest in (or need to implement) AI in an organization— especially those working in areas such as science, engineering, knowledge engineering, finance, education or IT services.

## Plan szkolenia:

- Introduction and Course Outline
  - Course overview and structure
  - Exam information
  - Daily schedule
- Human and Artificial Intelligence—Part 1
  - General definition of AI

- Ethics
- Sustainability
- AI as part of Universal Design and The Fourth Industrial Revolution
- Challenges and risks
- Exercise 1
  - Opportunities for AI
- Human and Artificial Intelligence—Part 2
  - Learning from experience
  - Applying the benefits of AI
  - Opportunities
- Ethics and Sustainability - Trustworthy AI—Part 1
  - Roles and responsibilities of humans and machines
- Ethics and Sustainability - Trustworthy AI—Part 2
  - Trustworthy AI
- Sustainability, Universal Design, Fourth Industrial Revolution and Machine Learning
  - Learning from data, functionality, software and hardware
- Exercise Two
  - Ethics and sustainability
- Artificial Intelligent Agents and Robotics
  - AI intelligent agent description
  - What a robot is
  - What an intelligent robot is Being Human, Conscious, Competent and Adaptable
  - AI project teams
  - Modelling humans
- Exercise Three
  - Human plus machine mindmap
- What is a Robot?
  - Definition of a robot
  - Robot paradigm
- Applying the Benefits of AI
  - Benefits, challenges and risks
- Applying the Benefits of AI
  - Opportunities and funding
- Building a Machine Learning Toolbox
  - How do we learn from data?
- Building a Machine Learning Toolbox

- Types of machine learning
- Exercise Four
  - Define a simple ML problem
- Building a Machine Learning Toolbox – Two Case Studies
- Building a Machine Learning Toolbox
  - Introduction to probability and statistics
- Building a Machine Learning Toolbox
  - Introduction to linear algebra and vector calculus
- Building a Machine Learning Toolbox
  - Visualising data
- A Simple Neural Network Schematic
  - Introduction to neural networks
- Exercise Five
  - Maturity and funding of an AI system
- Open Source ML and Robotic Systems
  - Open source software for AI and robotics
- Machine Learning and Consciousness
  - Introduction to machine learning and consciousness
- The Future of Artificial Intelligence
  - The human + machine
  - What will drive humans and machines to work together
- Exercise Six
  - Explore the future opportunities for AI and human systems
- Learning from Experience
  - Agile projects
- Conclusion
- Exam Practice and Preparation
- Examination

## Poziom trudności



## Certyfikaty:

The EXIN BCS Artificial Intelligence Foundation certification tests a candidate's knowledge and understanding of the terminology and general principles of AI. This Foundation certificate includes and expands on the knowledge taught in the EXIN BCS Essentials Certificate in Artificial Intelligence.

## Prowadzący:

Authorized HPE Trainer.