AI Fundamentals for Professionals

Course #: AI-100   **Duration:** 1 day

Prerequisites

None

Details

This course provides a clear, practical foundation in modern artificial intelligence for professional audiences. Participants develop accurate mental models of how AI systems work, what they can and cannot do, and how to use them responsibly in organizational settings. The focus is on understanding AI well enough to make informed decisions, set appropriate expectations, and avoid common organizational and ethical pitfalls. This course is not designed to teach AI programming or system implementation; it establishes the foundational understanding required before applying AI tools or building AI-enabled systems.

After attending this course, students should be able to:

Explain what modern AI is and how it differs from traditional software
Describe how large language models operate at a conceptual level
Identify strengths, limitations, and risks of AI systems
Apply AI concepts to real workplace scenarios
Communicate about AI clearly and responsibly

This course is designed for professionals who need a clear, practical understanding of artificial intelligence to make informed decisions, use AI responsibly, and participate effectively in AI-enabled initiatives.

Software Needed

Access to an AI assistant tool approved by your organization (e.g., Copilot, ChatGPT, Claude, or similar) is helpful but is not required. If organizational access is not available, the course can still be completed without hands-on tool use.

Outline

AI Fundamentals for Professionals

- **Why Artificial Intelligence Matters Today**
    - The rapid rise of AI in business and society
    - Key technological shifts enabling modern AI (data, computing power, model advances)
    - AI as a general-purpose capability across industries and job roles
    - How AI is already embedded in everyday workplace tools and systems

- **What Artificial Intelligence Is and What It Is Not**
    - Artificial intelligence vs traditional automation and software
    - Narrow AI and task-specific systems
    - Common misconceptions about "intelligence," reasoning, and understanding

- ○ Why AI outputs can appear human-like without true comprehension

- **How Modern AI Systems Work**
  - ○ High-level overview of machine learning and large language models
  - ○ Training vs real-time use (inference)
  - ○ Tokens, probabilities, and pattern prediction
  - ○ Why AI responses can vary and appear confident even when incorrect

- **Strengths and Limitations of AI**
  - ○ Tasks AI performs well
  - ○ Tasks requiring caution or human oversight
  - ○ Typical failure modes, including hallucinations and bias
  - ○ Understanding uncertainty, reliability, and confidence in AI outputs

- **Practical Applications of AI in the Workplace**
  - ○ Writing, editing, and summarizing
  - ○ Research and information synthesis
  - ○ Analysis support and idea generation
  - ○ Productivity enhancement vs decision authority
  - ○ Risks associated with informal or ungoverned AI use

- **Human Judgment and Accountability**
  - ○ AI as decision support, not decision-maker
  - ○ Human-in-the-loop concepts
  - ○ Ownership and responsibility for AI-assisted work
  - ○ Maintaining professional standards, review, and oversight

- **Ethics, Bias, and Risk Management**
  - ○ Sources of bias in AI systems
  - ○ Ethical considerations in business and professional contexts
  - ○ Legal, reputational, and operational risks
  - ○ Privacy, confidentiality, and data protection considerations

- **AI and the Future of Work**
  - ○ Automation vs augmentation
  - ○ Impact of AI on tasks, roles, and workflows
  - ○ Skills becoming more valuable in AI-enabled environments
  - ○ Preparing individuals and teams for change

- **Preparing for Responsible AI Adoption**
  - ○ Building AI literacy across teams
  - ○ Establishing shared language and expectations
  - ○ Developing practical usage guidelines and policies
  - ○ Evaluating AI tools and vendor claims