

AI Fundamentals



OVERVIEW

AI Fundamentals is a credit-bearing, hands-on course designed specifically for the academic market to help institutions teach students how to understand and use artificial intelligence safely, effectively, and responsibly. This 3-credit course equips non-technical learners with foundational AI literacy and practical skills that are increasingly required across academic programs and entry-level careers, regardless of major.

The course blends high-quality instructional content with applied, scenario-based learning delivered through CompTIA's proprietary AI simulations and labs. Students learn how AI, particularly generative AI and chatbots, works at a conceptual level, when and how AI should be used, how to design effective prompts, and how to critically evaluate AI outputs for accuracy, bias, and quality. Throughout the course, learners complete hands-on projects that reinforce responsible use, academic integrity, transparency, and human accountability.

The curriculum is vendor-neutral and designed to align with common general education and elective structures in academics. A built-in Competency Assessment enables institutions to validate student AI proficiency after students complete the course.

LEARNER OUTCOMES

AI Fundamentals helps students use AI confidently, responsibly, and effectively in their coursework and early careers. Learners build practical skills to recognize appropriate AI use, get better results from AI tools, and keep human judgment at the center.

Learners who complete AI Fundamentals will be able to:

- Identify where AI appears in everyday tools and when its use is appropriate or limited
- Manage risks such as bias, misinformation, and overreliance on AI
- Write and refine effective prompts to improve AI output quality
- Apply AI to real academic tasks like drafting, revising, and planning communications
- Use AI to support studying, brainstorming, comparing options, and structuring decisions
- Demonstrate a foundational understanding of AI-enabled automation, agents, and the role of human oversight

KEY FEATURES

Training Delivery Options

- Self-paced
- Instructor-led training

Available Product Offerings

- CertMaster Learn

Estimated Time

- 50–56 hours of seat time
- Timed Competency Assessment

Additional Highlights

- AI labs that allow safe experimentation, structured assignments, and auto-graded performance feedback, without requiring access to third-party tools
- Engaging multimedia instruction through video, text, and interactive activities
- Utilizes CompTIA's research-based Learning Progression Model to drive effective and efficient learning
- Designed for a broad audience

CLOSING THE AI SKILLS GAP

Employers increasingly expect graduates to demonstrate practical AI fluency—using generative AI responsibly, evaluating outputs critically, and applying AI tools to real workplace tasks. Yet many colleges and universities are still in the early stages of AI adoption, often relying on ad hoc experimentation or one-off classroom activities instead of a consistent, skills-based approach.

CompTIA AI Fundamentals helps close this gap. It gives institutions a scalable, curriculum-aligned way to embed hands-on AI training across programs, so students move beyond basic awareness to real, applied capability.

AI Fundamentals



DRAFT LESSON OUTLINE

- 1.0 Getting Started: Why AI Matters
- 2.0 Building Foundations in AI and GenAI
- 3.0 Identifying When and How to Use AI
- 4.0 Using AI Responsibly and Ethically
- 5.0 Writing Effective Prompts
- 6.0 Improving AI Outputs with Context
- 7.0 Evaluating and Verifying AI Outputs
- 8.0 Leading Effective AI Interactions
- 9.0 Creating and Improving Content with AI
- 10.0 Using AI for Learning and Growth
- 11.0 Supporting Analysis and Decision Making with AI
- 12.0 Powering Automation and Workflows with AI
- 13.0 Using AI Transparently and Professionally
- 14.0 Preparing for AI-Ready Careers
- 15.0 Integrating and Reflecting on AI Use

LEARNER BENEFITS

- Explain how modern AI works and where it is used
- Identify appropriate AI use cases and limitations
- Recognize and manage AI risks
- Apply responsible, ethical, and secure AI practices
- Design effective AI prompts
- Evaluate and improve prompt quality
- Use context to enhance AI interactions
- Verify and evaluate AI outputs
- Refine outputs through conversational AI use
- Apply AI to writing, communication, and media tasks
- Use AI to support learning and studying
- Use AI as a thought partner for analysis and decisions
- Understand AI-enabled automation and human oversight
- Communicate AI use and plan for future skill development