

# ***Certification Program on Artificial Intelligence for Everyone***

**Target Audience:** Students of BA, B.Com, BBA, MBA, Education, Law, Pharmacy and other non-AI / non-engineering disciplines

**Programme Duration:** 30 Hours

**Credits (optional):** 2

At the end of the course, the student will be able to:

- CO1:** Explain the fundamental concepts, evolution, and types of Artificial Intelligence in a non-technical manner.
- CO2:** Identify and analyze real-life applications of AI across education, business, law, healthcare, and governance.
- CO3:** Demonstrate effective use of Generative AI tools for academic, professional, and documentation purposes.
- CO4:** Design and apply appropriate prompt engineering techniques for desired AI outputs.
- CO5:** Differentiate between autonomous and semi-autonomous AI agents and explain their real-world use cases.
- CO6:** Evaluate ethical, legal, and social implications of AI and practice responsible AI usage in academics and professions.

## **PROGRAM OUTCOMES (POs)**

- PO1:** Apply foundational knowledge to understand emerging technologies and societal needs.
- PO2:** Analyse problems and identify appropriate AI-based solutions in academic and professional contexts.
- PO3:** Communicate effectively using modern digital and AI-enabled tools.
- PO4:** Demonstrate ethical responsibility and awareness of legal, social, and professional issues.
- PO5:** Engage in lifelong learning and adapt to rapidly evolving technological environments.

## **DETAILED SYLLABUS**

### **UNIT I: Foundations of Artificial Intelligence for Everyone (8)**

Definition: Artificial Intelligence? (Human Intelligence vs Machine Intelligence), Evolution of AI: Rule-Based Systems to Generative AI, Key Concepts (Non-Technical): Machine Learning, Deep Learning, Data and Models, Types of AI: Narrow AI vs General AI; Predictive, Generative, and Agentic AI, AI Around Us: Education, Business, Law, Healthcare, Governance

### **UNIT II: Generative AI in Practice (8)**

Definition: Generative AI, Conceptual understanding of how Large Language Models (LLMs) work, Types of Generative AI: Text-to-Text, Text-to-Image, Text-to-Audio/Video Use Cases: Academic writing, Business communication, Legal drafting, Teaching-learning material, Healthcare documentation

### **UNIT III: Prompt Engineering & Agentic AI (8)**

Prompt Engineering and its importance, Types of Prompts: Instruction, Role-based, Chain-of-thought, Context-rich Introduction to Agentic AI and AI Agents, Autonomous vs Semi-Autonomous agents with real-world examples

### **UNIT IV: Applied AI and Ethics (6)**

Ethical AI: Bias, Fairness, Data Privacy, Hallucinations, Legal and Social Implications of AI

Responsible use of AI in academics and professions, Future of AI and careers for Non-AI professionals

**Text Books:**

1. Stuart Russell & Peter Norvig, *Artificial Intelligence: A Modern Approach*, Pearson Education.
2. Tom Taulli, *Artificial Intelligence Basics: A Non-Technical Introduction*, Apress.
3. Ethan Mollick, *Co-Intelligence: Living and Working with AI*, Portfolio / Penguin.
4. Bernard Marr, *Artificial Intelligence in Practice*, Wiley.
5. Pedro Domingos, *The Master Algorithm*, Basic Books.
6. Melanie Mitchell, *Artificial Intelligence: A Guide for Thinking Humans*, Farrar, Straus and Giroux.

**Web References:**

- OpenAI – AI Concepts and Generative AI Documentation  
<https://openai.com>
- Google AI – Learn AI and Responsible AI Practices  
<https://ai.google/education>
- IBM AI – AI Foundations and Ethics  
<https://www.ibm.com/artificial-intelligence>
- Microsoft Learn – AI Fundamentals  
<https://learn.microsoft.com/ai>
- World Economic Forum – AI, Ethics, and Future of Work  
<https://www.weforum.org>
- UNESCO – Ethics of Artificial Intelligence  
<https://www.unesco.org/en/artificial-intelligence>

## **Artificial Intelligence Lab**

1. Identification and exploration of AI applications used in daily life(chatbots, image generators, voice assistants)
2. Summarize articles, research abstracts or news using AI tools
3. Producing blog posts, reports, and visual presentations using AI tools
4. Grammar Correction and Language Translation Using AI
5. Designing a basic marketing campaign using AI tools
6. Experimenting with prompt engineering techniques.
7. Image Generation from Text Prompts
8. Building simple no-code AI agents: Research Assistant, Content Planner, Study Assistant, Flowchart-based agent
9. Peer-review and critical evaluation of AI tools
10. AI-Assisted Data Analysis (Basic Level)

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**Note:** The Instructor may add/delete/modify/tune experiments

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