2-DAY COURSE

AI and Machine Learning Essentials

Fundamentals, Applications and Best Practices

TARGET AUDIENCE

Professionals, across industries who want to gain an understanding of Artificial Intelligence (AI), Machine Learning (ML), and Generative AI.

Managers, team leaders, business analysts or consultants who want to build confidence in navigating the AI landscape, understanding its capabilities and obstacles, and engaging effectively in AI-related discussions and decisions.

- No prior technical background is required, just curiosity and a desire to learn
- Participants should bring their own laptop (for hands-on experience)

ORGANIZATION

- EPFL (Swiss Federal Institute of Technology in Lausanne), Switzerland

OVERVIEW

In today's rapidly evolving landscape, AI and Machine Learning (ML) are reshaping industries, creating new possibilities for professionals in every field. Even if your role is not directly in AI or data science, you can gain an understanding of how these technologies work and might be leveraged.

How can AI tools help you increase productivity, enhance decision making or streamline processes? This course provides a clear, accessible introduction to core AI concepts and tools, empowering you to evaluate opportunities, ask better questions, and contribute meaningfully to AI-driven projects.

OBJECTIVES

- Gain an overview of the ML, AI and Generative AI landscapes
- Understand how models are built, aligned and benchmarked
- Clarify key ML concepts to inform decisions in your organization
- Explore and practice prompting Large Language Models (LLMs)
- Strengthen your ability to effectively communicate and collaborate with technical professionals in the AI community

Wed. June 3, 2026
9 am to 5 pm

Thurs. June 4, 2026
9 am to 5 pm

CHF 1500.–

10% special discount for contributing members of EPFL Alumni & EPFL partners

EPFL, Lausanne, Switzerland

On-line registration

Registration deadline :
April 12, 2026

Number of participants is limited

Certificate of attendance

LEARN MORE

PROGRAM

DAY 1 - Morning
INTRODUCTION TO ARTIFICIAL INTELLIGENCE
Frontal lesson with conceptual exercises

- AI Terminology and its building blocks
- Examples of real-world applications of AI
- The central role of data

DAY 1 - Afternoon
DECISION MAKING ALONG THE PIPELINE
Frontal lesson and workgroups
- Data science pipeline essentials
- Walk through of decision making process
- Different types of learning (supervised, self-supervised, unsupervised, multimodal)

DAY 2 - Morning
LARGE LANGUAGE MODELS (LLMs) AND GENERATIVE AI
Frontal lesson and conceptual exercises
- Generative AI: a peek behind the curtain
- Applications, limitations and guardrails of Generative AI models
- Model alignment and benchmarks for model selection

DAY 2 - Afternoon
PROMPTING, INFRASTRUCTURE AND TOOLS
Frontal lesson and workgroups
- Prompt engineering, from concepts to interactive exercises
- Compute power in the realm of AI
- Tools and framework for building Generative AI applications
- Conclusion: Insights and key takeaways

PROGRAM DIRECTOR

- **Prof. Negar Kiyavash,**
  Full Professor, Chair of Business Analytics, EPFL

INSTRUCTORS

- **Christian Lübbe,**
  Machine Learning Course Instructor, EPFL
- **Amir Khalilzadeh,**
  Machine Learning Course Instructor, EPFL

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