

# AI LAUNCHPAD: YOUR JOURNEY INTO ARTIFICIAL INTELLIGENCE

## Learning outcomes according to the Louis Framework

The Louis Framework is used in the EURIDICE educational system to enhance general—higher-order—academic and personal learning outcomes. It is based on the AAC&U-Value approach and has been adopted/adapted for higher education with the aim of social impact by the Aurora University Alliance.

- **Critical Thinking (evidence)**
- **Ethical Reasoning (understanding different ethical perspectives/concepts)**
- **Information literacy (access the needed information)**

## Course Structure & Activities

### Overview

The course is delivered through 5 thematic modules. Each module combines theoretical input (lectures, readings, discussions) with a practical workshop session designed to reinforce concepts and build hands-on skills. This structure ensures a balanced approach between understanding AI principles and learning how to interact with AI systems. The modular design follows a clear pedagogical progression, starting with foundational definitions and historical context, moving through capabilities and tools, developing practical interaction skills, and culminating in critical reflection on future trends and ethical considerations. This incremental approach is characteristic of effective curriculum design, building knowledge systematically.

### Module Breakdown

- **Module 1: What is AI? A Historical Voyage & Future Glimpse**
  - *Content:* This module demystifies AI by providing simple definitions and exploring core ideas like learning, problem-solving, and perception. It offers a brief history covering key moments from the Turing Test to Deep Learning breakthroughs and the rise of Large Language Models. Participants will learn about the types of AI, distinguishing between Narrow AI (prevalent today) and the concept of Artificial General Intelligence (AGI). Core concepts like Machine Learning (ML) and Deep Learning (DL) are explained conceptually as the engines of modern AI, without requiring mathematical expertise. Common myths about AI are addressed, and an initial glimpse into future trends and societal questions sets the stage for later modules.
  - *Workshop 1: AI Around Us:* Activities focus on making AI tangible. Participants will brainstorm and identify everyday examples of AI encountered in smartphones, streaming services, and online maps. An interactive timeline activity helps visualize key AI milestones. The workshop concludes with a discussion on initial thoughts and concerns about AI, establishing a common ground for exploration.
  - *Purpose:* To establish a common understanding and historical context, demystifying AI from the outset and addressing potential preconceptions.

- **Module 2: The AI Toolkit: Capabilities, Applications & Boundaries**

- *Content:* Building on the foundational understanding, this module explores core AI capabilities such as Natural Language Processing (NLP), Computer Vision, Pattern Recognition, Prediction, and Generative AI. Real-world examples demonstrate AI's application across diverse sectors like Healthcare (diagnostics aid), Finance (fraud detection), Entertainment (content generation), Education (personalized learning tools), Retail (recommendation engines), and Transportation (navigation). Crucially, the module also addresses AI's limitations, exploring where it struggles (e.g., common sense, true understanding, context, creativity constraints) and explaining the "Black Box" problem simply. An introduction to the role of data highlights how AI learns and why biased data leads to biased outcomes. Basic concepts for evaluating AI performance (like accuracy, relevance, helpfulness) are introduced non-technically, with examples of assessing AI outputs (e.g., translation quality, summary accuracy).
- *Workshop 2: Exploring AI Applications & Simple Evaluation:* Activities encourage deeper engagement with AI's practical side. In the "AI Sector Spotlight," small groups research and present AI applications within a specific field (e.g., art, journalism, customer service). Another activity involves evaluating outputs from simple AI tools, such as comparing translations from different services or assessing the quality of an AI-generated summary, fostering critical assessment skills.
- *Purpose:* To move from definition to function, illustrating AI's practical impact across various domains while introducing essential concepts of limitations, data bias, and basic evaluation.

- **Module 3: Meet the AIs: Exploring Today's Landscape**

- *Content:* This module provides a survey of common and accessible AI tools available today. It covers Large Language Models (LLMs)/Chatbots (e.g., ChatGPT, Gemini, Claude), focusing on their general purpose. Image Generation Tools (e.g., Midjourney, DALL-E, Stable Diffusion) are introduced with their basic concepts. Specialized AI tools like grammar checkers (Grammarly), translation services (Google Translate/DeepL), and music generation tools are also overviewed. Conceptual explanations clarify key differences between models, such as the relationship between model size and capability/cost, modality (text/image/audio input/output), and the influence of training data on knowledge and bias. Factors for comparing providers are discussed, including accessibility, cost/free tiers, ease of use, and specific strengths, emphasizing user experience over deep technical specifications.
- *Workshop 3: AI Tool Test Drive:* This workshop provides direct experience with AI platforms. Participants engage in hands-on exploration of 2-3 pre-selected, user-friendly AI tools (e.g., a public chatbot, a simple image generator). A guided comparison activity involves performing a similar simple task on different platforms (e.g., asking the same question to two chatbots, generating an image from the same description using two tools) and comparing the results, interface, and overall experience.
- *Purpose:* To familiarize participants with the current AI tool ecosystem, enabling them

to navigate available options and make informed choices about which tools might suit their needs.

- **Module 4: Talking to AI: The Art of Prompt Engineering**

- *Content:* This module focuses on a crucial skill for interacting with generative AI: prompt engineering. It explains why the quality of instructions significantly impacts AI output. Core principles of effective prompting are taught, including the importance of being clear and specific, providing context, defining the AI's role or persona, specifying the desired format, and using constraints. Examples contrasting good and bad prompts demonstrate the impact of small changes on tasks like summarization, idea generation, explanation, and text rephrasing. The iterative process of refining prompts based on AI responses is also covered.
- *Workshop 4: Prompt Crafting Challenge:* Activities are designed to build practical prompting skills. "Prompt Transformation" involves rewriting weak prompts to make them more effective using the learned principles. In "Prompt Taskmaster," participants craft prompts for predefined scenarios (e.g., generating creative story ideas, explaining a complex topic simply, drafting a polite email) using an accessible LLM. Peer review provides valuable feedback on drafted prompts.
- *Purpose:* To develop a key practical skill – effective prompt engineering – essential for maximizing the utility of generative AI models.

- **Module 5: AI Futures: Ethics, Impact & Your Place**

- *Content:* The final module looks towards the future and delves into the critical dimensions of AI. It discusses potential future AI developments, such as increased automation, advances in AGI research, and hyper-personalization. A deeper dive into key ethical considerations explores fairness and bias amplification, privacy concerns, transparency and explainability issues, the accountability gap, and the impact on jobs and skills. The broader societal effects on culture, economy, democracy, and daily life (both opportunities and challenges) are examined. Principles for responsible AI use are outlined, emphasizing ethical and critical interaction. The importance of lifelong learning in the age of AI is stressed, equipping participants to stay informed and adapt. The module concludes by providing a curated list of reliable resources for further learning, focusing on accessible materials like reputable news outlets covering AI, introductory online courses, key organizations, and influential thinkers.
- *Workshop 5: AI Ethics & Future Gazing:* Activities promote critical thinking and personal reflection. Ethical scenario discussions allow small groups to analyze hypothetical situations involving AI dilemmas. A personal/professional impact mapping exercise encourages participants to reflect on how AI might affect their own lives, studies, or careers. Finally, participants collaboratively build a list of useful, accessible resources for staying updated on AI.
- *Purpose:* To encourage critical reflection on the broader societal and ethical implications of AI, and to empower participants with principles for responsible use and resources for continued learning in this rapidly evolving field.

## Assessment Methods

Student learning and engagement will be assessed through a combination of methods designed to evaluate both conceptual understanding and the practical application of skills, reflecting the course's dual focus on knowledge acquisition and capability development. All assessments are designed to be accessible to participants without technical backgrounds. The alignment between these assessment methods and the course's learning objectives ensures that evaluation is directly tied to the intended outcomes; for instance, the "Prompt Portfolio" directly assesses the objective related to crafting effective prompts, while the "AI Application Analysis" measures understanding of AI applications and limitations.

The following table outlines the assessment components and their respective weightings towards the final grade:

Assessment Component	Description	Weighting
Class Participation	Active engagement in workshop activities and discussions.	15%
Short Quizzes	Simple knowledge checks after modules (conceptual, non-technical).	15%
AI Application Analysis	Short written piece analyzing an AI application in a chosen field, discussing its benefits and limitations.	25%
Prompt Portfolio	Submission of crafted prompts for different tasks, showing application of principles & refinement.	25%
Final Reflection	Short essay on personal takeaways regarding societal/ethical impact of AI and future learning plans.	20%

## Target Audience & Prerequisites

**Target Audience:** This course is specifically designed for a broad audience, including students, professionals, and lifelong learners from any background who are interested in understanding Artificial Intelligence.

**Prerequisites:** No prior specific knowledge or technical skills in computer science, programming, or advanced mathematics are required. The only prerequisite is an interest in learning about AI. This open accessibility is a core feature, distinguishing it from programs with more restrictive academic entry requirements <sup>1</sup> and positioning it to meet a widespread need for foundational AI literacy.

## Teaching & Learning Approach

The course employs a blended learning approach combining theoretical input (e.g., lectures, curated readings) with highly interactive workshop sessions. Emphasis is placed on active learning through discussions, hands-on activities with AI tools, practical exercises (like prompt crafting), and peer interaction. This methodology prioritizes engagement and practical skill-building over passive knowledge reception, which is particularly effective for introducing beginners to technological concepts and tools through direct experience and application. The estimated student workload encompasses scheduled sessions, independent self-study, and assignment completion.

## Estimated Workload

The course corresponds to 3 ECTS credits. This translates to an estimated total student workload of approximately 75-90 hours. This time includes participation in lectures and workshops, independent self-study, and time dedicated to completing the course assessments. Providing this estimate allows prospective students to accurately gauge the time commitment required for successful participation.<sup>1</sup>

## Recommended Learning Resources

Throughout the course, participants will be provided with a curated selection of supplementary resources to support their learning journey and encourage further exploration. This provision is integral to the course's aim of fostering not just immediate understanding but also the capacity for continued, independent learning in the dynamic field of AI. These resources will include:

- Links to accessible AI tools (prioritizing free tiers where available).
- Curated articles and blog posts from reputable sources focused on AI for a general audience (e.g., MIT Technology Review, Wired).
- Links to introductory videos and clear technology explainers.
- References to beginner-friendly online courses on platforms like Coursera, edX, Google AI Education, or Elements of AI.
- Guidance on reliable sources and key thinkers to follow for staying informed about AI

developments.

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### **Virtual classroom**

All classes will be held in a mixed format using Zoom, Moodle and specialized cyber simulators (where possible).

### **Creative Commons**

All materials in this course are created by Dmytro Uzlov.