

2025/2026

Course: Introduction to Artificial Intelligence

2025/2026

Module Objectives: To introduce

This module aims to provide students with a foundational understanding of Artificial Intelligence (AI) and its responsible use in academic contexts.

By the end of the module, students will be able to:

- ❖ Understand core AI concepts, **types and application domains**.
- ❖ **Assess the benefits, limitations and ethical risks of AI technologies**.
- ❖ Use AI tools effectively for literature review, **time management and scientific writing**.
- ❖ Apply AI to support academic creativity and informed decision-making.

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Content of the Module:

Introduction to Artificial Intelligence

Chapter 1: Definitions of Artificial Intelligence (AI)

- Simple and historical definition
- Differences between weak AI, strong AI, symbolic AI and connectionist AI
- Concrete examples of AI in everyday life
- AI domains:
 1. Machine Learning, Natural Language Processing, Computer Vision, Robotics
 2. Applications: medicine, transportation, education, industry

Chapter 2: Advantages and Risks of AI

- Benefits of AI
- Risks and challenges of AI

Content of the Module :

Chapter 3: AI for Literature Review and Research

- Presentation of tools such as Elicit, Scopus AI and Web of Science Research Assistant
- Writing intelligent search queries
- Automatic summarization of scientific articles
- Critical evaluation of AI-recommended sources

Chapter 4: AI for Time and Task Management

- Personal organization (**Notion AI, AI-enhanced Google Calendar**)
- Generation of to-do lists, creation of course plans or revision schedules

Content of the Module :

Chapter 5: AI for Scientific Writing

- Assistance with structuring assignments and research projects
- Rewriting and style improvement
- **Awareness of plagiarism and originality issues**
- Translation and multilingual scientific writing

Chapter 6: AI and Academic Creativity

- Generation of research project ideas
- **AI-assisted brainstorming**
- Creation of scientific presentations or posters

Content of the Module :

Chapter 6: AI and Academic Creativity

Assessment Method

- Final Exam: 60%
- Continuous Assessment: 40%

Bibliography

Online Courses:

- Elements of AI (University of Helsinki) - An accessible introduction to artificial intelligence.
- AI Objective (OpenClassrooms) - A course for everyone on the challenges of AI.

Practical Guides:

- Laval University Library - Use of AI tools in academic research.
- Polytechnique Montréal - Generative AI tools in the university environment