

COURSE SYLLABUS

AI in industry and business, 2.5 credits

AI för företag och organisationer, 2.5 högskolepoäng

Course Code: T2AFFO	Education Cycle: Second-cycle level
Confirmed: Feb 01, 2025	Disciplinary domain: Technology
Revised: Jun 03, 2025	Subject group: Computer Technology
Valid From: Sep 01, 2025	Specialised in: A1N Second cycle, has only first-cycle course/s as entry requirements
	Main field of study: Computer Science

Intended Learning Outcomes (ILO)

On completion of the course the student shall:

Knowledge and understanding

- display knowledge of modern AI and its use in industry and business

Skills and abilities

- demonstrate the ability to identify situations where AI can be used for applications in industry and business
- demonstrate the ability to reason about the AI readiness of an organization

Judgement and approach

- demonstrate an understanding of data management, governance, security and ethics related to the use of AI in industry and business

Content

The course is aimed at working professionals in industry and business, who wish to gain knowledge of artificial intelligence (AI) and its use in organizations. The course covers the theoretical foundations of AI, including an overview of how both fundamental and modern AI techniques work. Building on this knowledge, the course then moves on to cover applications of AI in industry and business, covering different domains and giving examples such as using pre-trained AI components to automate administrative tasks and how an organization can utilize their own data to build AI models. Here, both technical and organizational prerequisites for AI adoption will be discussed, with special focus on digitalization, data management and AI governance. Finally, the course will give participants insights into issues on ethics and security of AI in industry and business.

The course includes the following elements:

- Theoretical foundations of AI
- Overview of modern AI techniques, including deep learning (DL) and large language models (LLMs)
- AI capabilities and AI applications in business and industry
- Retrieval-Augmented Generation (RAG) and AI automation of administrative workflows
- AI readiness: organizational and technical prerequisites for AI, with special focus on data management and AI governance
- AI security and ethics, such as privacy and confidentiality issues

Type of instruction

The course is given as an online course with a mix of digital resources, such as recorded lectures and quizzes, and online meetings. Participation in at least two online seminars is mandatory.

Language of instruction is in English.

Entry requirements

Passed courses of at least 40 credits in a main field of study within Engineering and Technology, Natural Science or Social Sciences, and at least 1 year of work experience (or equivalent). English proficiency is required (level 6 or equivalent). Applicants that have at least 4 years of work experience in industry are exempt from the requirement of at least 40 credits within Engineering and Technology, Natural Science or Social Sciences field.

Examination and grades

The course is graded Pass (G) or Fail (U).

The final grade will only be issued after satisfactory completion of all mandatory examination elements.

Registration of examination:

Name of the Test	Value	Grading
Assignment	2.5 credits	G/U

Course literature

Please note that changes may be made to the reading list up until eight weeks before the start of the course.

Book chapters and articles, available through the university library service.