

COURSE SYLLABUS

AI in Retail, 5 credits

AI in Retail, 5 högskolepoäng

Course Code:	T2AIRW	Education Cycle:	Second-cycle level
Confirmed:	Sep 01, 2025	Disciplinary domain:	Social sciences (50%) and Technology (50%)
Valid From:	Aug 31, 2026	Subject group:	Industrial Engineering and Management
		Specialised in:	A1N Second cycle, has only first-cycle course/s as entry requirements
		Main field of study:	Industrial Engineering and Management

Intended Learning Outcomes (ILO)

On completion of the course the student shall:

Knowledge and Understanding

- display knowledge of the role of AI and analytics in retailing.
- show familiarity with how data-driven models support decision-making in retailing.

Skills and Abilities

- demonstrate the ability to apply AI-powered tools to solve practical problems in retailing
- demonstrate the ability to interpret and communicate insights from data-driven models to support operational and strategic decisions.

Judgement and Approach

- demonstrate the ability to critically assess ethical, legal, and organizational considerations in implementing AI in retail.
- demonstrate an understating of reflecting on the integration of AI and analytics in retail firms, considering both technological and human factors in implementation.

Content

Artificial Intelligence (AI) and advanced analytics are reshaping the retail sector, transforming how goods are planned, marketed, priced, delivered, and returned. As retail evolves toward digital, data-driven models, the ability to leverage analytics across the supply chain has become a key driver of resilience, efficiency, and customer satisfaction.

This executive-level course provides a strategic and hands-on overview of how analytics can optimize core retail operations, from demand forecasting and inventory management to last-mile delivery and returns. Participants will explore both established tools and applications (e.g., AI simulation platforms, analytics dashboards), as well as emerging areas such as AI-agents/Agentic commerce. The course also covers behind-the-scenes data-driven models that power decision-making in retail logistics. Special attention is given to the broader retail ecosystem.

With a focus on regional challenges such as distribution complexity, sustainability imperatives, and evolving customer expectations, the course blends case-based learning with practical exercises to equip leaders with the insight and tools needed to compete in today's fast-changing retail environment.

The course includes the following elements:

- General Relevance of AI for Retail
- Personalized Shopping and Engagement

- Inventory and Supply Chain Management
- Operational Efficiency and Decision Making
- Challenges and Ethical Considerations

Type of Instruction

The course is given as a fully online course, supported by recorded lectures, discussion forums, online sessions, and structured project work.

Language of instruction is 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 assessments.

Registration of examination:

Name of the Test	Value	Grading
Project	3 credits	G/U
Assignment	2 credits	G/U

Course Literature

Please note that the course literature may be revised up to eight weeks before the start of the course.