JÖNKÖPING UNIVERSITY
School of Engineering

COURSE SYLLABUS

From AI Opportunity to AI Project, 5 credits

Från AI-möjlighet till AI-projekt, 5 högskolepoäng

Course Code:	T2AHFT	Education Cycle:	Second-cycle level
Confirmed:	Sep 01, 2025	Disciplinary domain:	Technology
Valid From:	Aug 24, 2026	Subject group:	Computer Technology
		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

- demonstrate comprehension of major AI approaches relevant to organizational problem solving, including their capabilities and limitations
- demonstrate comprehension of frameworks for AI use in organizations

Skills and Abilities

- demonstrate the ability to identify opportunities for AI use
- demonstrate the ability to formalize an AI project proposal, from business problem and data understanding to evaluation criteria, deployment plan and resources required
- demonstrate the ability to follow best practices when designing and implementing AI solutions

Judgement and Approach

- demonstrate the ability to assess and select a suitable organizational problem or opportunity for AI, based on organizational needs, available data, resources, competence, and strategic goals

Content

The course is aimed at working professionals in industry and business who want to identify, assess, and design a suitable AI initiative in their organization. The course combines an overview of relevant AI methods and organizational frameworks for AI adoption with practical work on scoping an AI project. The central activity in the course is to identify an AI opportunity or problem in an organizational context and develop it into a structured project proposal, including problem formulation, data considerations, evaluation criteria, deployment considerations, and required resources. The work is supported through seminars and tutoring sessions.

The project work will focus on project design and formalization rather than full technical implementation. Depending on the participant's context, the project work can include some implementation steps.

The course includes the following elements:

- Organizational models and frameworks for introducing and governing AI
- Overview of relevant AI methods and application types, including machine learning and generative AI
- Criteria for selecting a feasible and valuable AI project
- Case examples of AI use in organizations
- Project models for AI initiatives, from problem definition and data understanding to evaluation, deployment, and resource planning

- Design and formalization of an AI project in the participant's own organization, supported through seminars and tutoring

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 four scheduled online sessions, two of which are seminars and two of which are tutoring sessions, is mandatory.

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 mandatory examination elements.

Registration of examination:

Name of the Test	Value	Grading
Assignment	1 credit	G/U
Project	4 credits	G/U

Course Literature

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

The course literature consists of book chapters and articles, available through the university library service.

Kelleher & Tierney, Data Science, USA, Cambridge, MA: The MIT Press, 2018. (Chapters 4 & 5)

AI Sweden. AI-adoption (official adoption framework page).

AI Sweden. AI Maturity Assessment (official maturity-assessment page).

Microsoft. MLOps maturity model. Useful only as an operational add-on, not as the scientific backbone.

Microsoft. Agentic AI adoption maturity model: Repeatable patterns for successful adoption. Useful only as an LLM/agentic appendix, not as a main 30-minute lecture element.

Hansen, H. F., Lillesund, E., Mikalef, P., & Altwaijry, N. (2024). Understanding Artificial Intelligence Diffusion through an AI Capability Maturity Model. Information Systems Frontiers, 26, 2147–2163.

Dreyling, R., Lemmik, J., Tammet, T., & Pappel, I. (2024). An Artificial Intelligence Maturity Model for the Public Sector: A Design Science Approach. TalTech Journal of European Studies, 14(2).

Sonntag, M., Mehmann, S., Mehmann, J., & Teuteberg, F. (2024). Development and Evaluation of a Maturity Model for AI Deployment Capability of Manufacturing Companies. Information Systems Management.

Hughes, L., Davies, F., Li, K., Gunaratnege, S. M., Malik, T., & Dwivedi, Y. K. (2026). Beyond the hype: Organisational adoption of Generative AI through the lens of the TOE framework – A mixed methods perspective. International Journal of Information Management, 86, 102982.

Additional material might be added.