



# ML2305 Production Logistics and Supply Chains 6.0 credits

Produktionslogistik och försörjningssystem

This is a translation of the Swedish, legally binding, course syllabus.

If the course is discontinued, students may request to be examined during the following two academic years

## Establishment

Course syllabus for ML2305 valid from Autumn 2019

## Grading scale

A, B, C, D, E, FX, F

## Education cycle

Second cycle

## Main field of study

Industrial Management, Mechanical Engineering

## Language of instruction

The language of instruction is specified in the course offering information in the course catalogue.

## Intended learning outcomes

After passing the course, the students should be able to:

- Define production logistics and supply chain management and categorise the different elements in a supply chain by applying an established framework.
- Describe, analyse and compare different transport systems and warehouse logistics systems, their components and underlying technologies for internal and external material flows.
- Explain how and under which requirements an increased digitisation and various IT systems can facilitate a transparent and seamless information flow in production logistics or in a supply chain.
- Identify and analyse interplay and information sharing in different parts of the production logistics, between different units in an organisation and between companies in a supply chain for physical products.
- Analyse the needs of a producing company, regarding its internal and external logistics systems from environmental, social and economical perspectives and set together possible solution proposals.

## Course contents

The aim of the course is that the student should obtain understanding of and tools for supply chain management in technology intensive sectors, but also that they should realise how these theories and tools can be applied in service producing supply chains. Further, students should obtain advanced knowledge of how technical solutions can improve material and information flows in internal productions logistics, transport and storage systems, as well as in SCM (including intermodal transports). The course will also form a basis for critical analysis of ethical, safety and integrity challenges in layers and transport systems as well as interaction between man and automated equipment.

## Specific prerequisites

Completed course ML1503 Industrial system II, 6 credits, or the equivalent.

Completed course Bachelor thesis, 15 credits or the equivalent.

## Examination

- PRO1 - Project work, 3.0 credits, grading scale: A, B, C, D, E, FX, F
- TEN1 - Written exam, 3.0 credits, grading scale: A, B, C, D, E, FX, F

Based on recommendation from KTH's coordinator for disabilities, the examiner will decide how to adapt an examination for students with documented disability.

The examiner may apply another examination format when re-examining individual students.

The examiner decides, in consultation with KTH's coordinator for disabilities (Funka), about possible adapted examination for students with documented, permanent disabilities. The examiner may permit other examination format for re-examination of individual students.

## Ethical approach

- All members of a group are responsible for the group's work.
- In any assessment, every student shall honestly disclose any help received and sources used.
- In an oral assessment, every student shall be able to present and answer questions about the entire assignment and solution.