



# ML2111 Distribution System 7.5 credits

## Distributionssystem

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

## Establishment

Course syllabus for ML2111 valid from Autumn 2017

## Grading scale

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

## Education cycle

Second cycle

## Main field of study

Mechanical Engineering

## Specific prerequisites

Higher education equivalent to at least 120 credits and documented proficiency in Swedish B and English A or the equivalent.

## Language of instruction

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

# Intended learning outcomes

After this course, the student should be able to:

- Evaluate the economic and environmental effects as well as risks associated with different distribution solutions regarding packaging, cargo carrier, transportation mode and traceability under different circumstances.
- Motivate the need for environmental actions within the transport sector, identify possible actions and compare the effect of these.
- Formulate and solve route optimizing problems using heuristics
- Identify important aspects and using center of gravity calculation as a support for localization decisions.
- Compare and evaluate warehouse, terminal and transport processes and technical appliances.
- Use a database to search for literature within the area of technics.
- Carry out a data analysis using a spreadsheet software
- Perform a deepen literature study in interdisciplinary project groups, present it orally and in writing with requirements on structure, reference management and language as well as opposing on another project presentation.

## Course contents

- Infrastructure
- Localization
- Traceability
- Transportation modes
- Multimodal transport solutions
- Route planning
- Sustainable logistic systems
- Warehouse operation
- Terminal operation
- Information search

## Disposition

Lectures  
Seminars  
Company visits  
Laboration  
Lessons  
Project

## Course literature

- Jonsson, P. & Mattson, S-A (2016), Logistik – Läran om effektiva materialflöden, Studentlitteratur, ISBN 978-91-44-11077-6
- Utdelat material

## Examination

- INLA - Assignment, 1.5 credits, grading scale: P, F
- PRO1 - Project, 3.0 credits, grading scale: A, B, C, D, E, FX, F
- TENA - Written examination, 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.

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

## Other requirements for final grade

Grade is weighted according to the weight of the examination parts.

## 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.