

Erasmus+ Project Meeting, May 8-12, 2017

Development and implementation of the master program
"Green logistics management"

Logistics Education at LiU

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General educational structure in Sweden

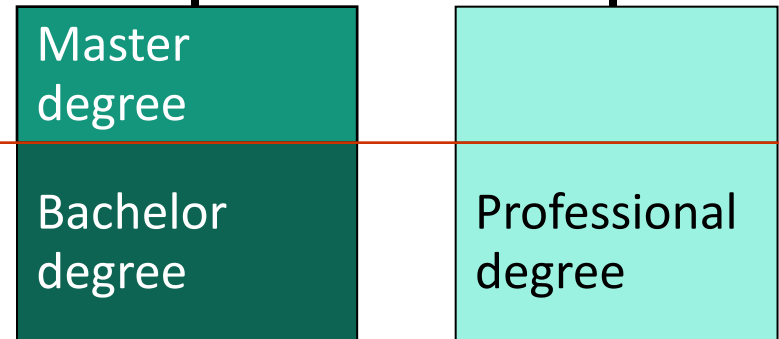
Research level (3rd level)

Licentiate degree (2 years)
PhD degree (4 years)



Advanced Level (2nd level)

Master's degree (2 years)



Basic level (1st level)

Bachelor's degree (3 years)



Logistics is mainly connected to the faculty of Science and Engineering

- 9 000 students
- 5 Bachelor programs
- 12 Master programs
- 5 Three-year engineering programs
 - Professional degree combined with a bachelor degree
- 13 Five-year engineering programs
 - Professional degree combined with a bachelor and a master degree

Logistics-related programs are given at two campuses at LiU

- Campus Valla (Linköping)
 - This is where the Division of Logistics and Quality Management give courses
 - Focus for today's presentation
- Campus Norrköping
 - More information will be given on Thursday, when we visit Campus Norrköping

Educational programs with logistics at Campus Valla (Linköping)

Faculty of Arts & Science

Business Administration



Two courses

- 20 ECTS Credits

Faculty of Science & Engineering

MSc in Industrial Engineering & Management



Major/Specialization in Logistics management

- > 60 ECTS cred.
- Appr. 60 stud.

MSc in Mechanical Engineering

Similar Major as above

- Appr. 15 stud.

MSc in Design & Product Development



A few courses on bachelor/master level

MSc in Energy, Environment & Mgmt



- 10-20 ECTS cred.

Industrial Engineering and Management

- Industrial Engineering and Management is a five-year professional program
 - Bachelor's + Master's program
- > 200 students admitted yearly
- Approximately 6000 graduates so far
- The program started 1969 in Linköping
 - The “original” in Sweden, one of the first worldwide
 - All larger Swedish universities has Industrial Engineering and Management as one of their programs
- Most popular engineering program in Sweden
 - Students entering the program with high grades

Industrial Engineering and Management

- The aim with the program is to combine
 - Mathematics
 - Engineering
 - Management (Industrial Engineering)
- Bachelor in Engineering
- Master in Industrial Engineering and Management
- Many students spend one year abroad

Industrial Engineering and Management

- First 1,5 year includes mainly compulsory courses
 - Mathematics, engineering and management courses
- Second year, choose one of five engineering specializations
 - Computer Science and Engineering, Electrical Engineering, Engineering Biology, Mechanical Engineering, Energy Engineering
- Year 4-5, choose one of seven management master profiles
 - Economic Information Systems
 - Finance, Innovations and Entrepreneurship
 - Industrial Marketing
 - Strategy management
 - **Logistics Management** (with strong focus on logistics)
 - **Operations Management** (including production-related logistics)
 - **Quality Management** (with some logistics elements)

The Logistics Management Master Profile

Year 4, semester 7

Fall period 1

100 TETS37
Basic Logistics,
6 ECTS

Fall period 2

80 TETS27
Supply Chain
Logistics, 6 ECTS

Year 4, semester 8

Spring period 1

70 TETS32
Logistics Analysis
6 ECTS

Spring period 2

30 TETS56
Logistics and Quality in
Healthcare, 6 ECTS

80 TETS36
Sustainable Logistics
Systems, 6hp

Year 5, semester 9

Fall period 1

70 TETS38 Logistics Project Course, 12 ECTS

Fall period 2

120 TETS23
Purchasing, 6 ECTS

50 TETS31
Logistics Strategy, 6 ECTS

50 TPPE99
Simulation of Production
and Logistics, 6 ECTS

Year 5, semester 10

Spring period 1

70 TQIE33 Master's Thesis, 30 ECTS

Spring period 2

**Master profile – at least 36 ECTS +
Master's Thesis.**

In total 8 logistics courses (54 ECTS)

Three courses (24 ECTS) are mandatory
→ at least two more courses (12 ECTS)
have to be chosen..

xx = Number of students

The Operations Management Master Profile

Among others, the following courses are included

Production Logistics

Advanced Planning
and Scheduling

Analysis and Dev. of
Manufacturing

Simulation of Prod.
& Logistics

Supply Chain
Optimization

Manufacturing
Strategy

The Quality Management Master Profile

Among others, the following courses are included

Lean Production

Six Sigma Quality

Logistics and Quality
in Healthcare

Statistical Quality
Control

Customer-Focused Dev. of
Products and services

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