



## Logistics and Transport Economics

### Logistik och transportekonomi

7.5 credits

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**Ladok Code:** TI6311

**Version:** 1.0

**Established by:** Board of the department 2008-11-19

**Valid from:** Spring 2008

**Education Cycle:** Second cycle

**Main Field of Study (Progressive Specialisation):** Logistics (A1F)

**Disciplinary Domain:** Technology

**Prerequisites:** Meets requirements for acceptance to a masters programme in the field of logistics plus at least 15 credits courses on the programme, or other expertise deemed equivalent.

**Subject Area:** Industrial Engineering and Management

**Grading Scale:** ECTS-credits

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### Content

The course deals with material flows internally and externally. Technology for planning, controlling and monitoring flows, as well as economic concepts for assessing the effects of stock buildup or just-in-time transportation will be studied. Route planning and automatic methods for sorting, routing and transport monitoring will be dealt with. Pricing methods in the field of transport will be presented. Cost structures for distribution and price-to-cost relations will be discussed. Risk analysis will be carried out and loss expenses calculated. Examples will be taken from direct distribution and mail order activities, among other things. Modelling and analysis of distribution chains will be studied as part of the project work.

### Learning Outcomes

Optimisation of transportation is taking on ever greater importance, with more stringent demands for economy, energy savings and resource efficiency in general. Information technology is developing quickly now, and is acquiring a number of applications in the field of transportation and handling of goods. The purpose of this course is to pass on technology and methods for analysis and decisions in a number of transport and distribution situations.

During the course, students must acquire knowledge and skills in the following:

- Applying technology and methods for planning, controlling and monitoring flows
- Explaining the economic concepts for assessment of the effects of stock buildup or JIT (Just-in-time) transportation
- Explaining cost structures for distribution
- Describing automatic methods for sorting, route selection and transport monitoring.

### Forms of Teaching

The teaching comprises the following elements:

- lectures
- exercises

The language of instruction is English.

### Forms of Examination

The course will be examined through the following examination elements:

*Written examination*

Learning outcomes:

Credits: 4

Gradingscale: ECTS-credits

### *Written report and verbal presentation*

Learning outcomes:

Credits: 3.5

Grading scale: Fail (U) or Pass (G)

The course will be examined by means of a written examination and a project report. Project work will take place in groups throughout the project. There must be an in-depth study of a central element of the course in the form of an application or case description related to the teaching objectives. A written project report must be handed in and presented at a final seminar. To pass, students have to present a well written and technically correct report and a relevant verbal presentation.

Student rights and obligations at examination are in accordance with guidelines and rules for the University of Borås.

## **Literature and Other Teaching Materials**

### **Literature**

Christopher, M., Logistics and Supply Chain Management, Prentice Hall, 1998

A selection of articles for individual review, analysis and case studies.

### **Student Influence and Evaluation**

The head of department and teacher responsible for the course are responsible for ensuring that students are invited systematically and regularly to put forward their views on the course. The results of these assessments, which will take place either verbally or in writing, form the basis for further development of the course.

### **Miscellaneous**

Study language: English