



## COURSE SYLLABUS

# Introduction to Logistics and Materials Management, 9 credits

*Introduktion till logistik och materialhantering, 9 högskolepoäng*

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<b>Course Code:</b> TLMG16	<b>Education Cycle:</b> First-cycle level
<b>Confirmed by:</b> Dean <MISSING VALUE>	<b>Disciplinary domain:</b> Technology (95%) and social sciences (5%)
<b>Valid From:</b> Aug 1, 2016	<b>Subject group:</b> IE1
<b>Version:</b> 1	<b>Specialised in:</b> G1N
<b>Reg number:</b> JTH 2016/2670-313	<b>Main field of study:</b> Industrial Engineering and Management

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### Intended Learning Outcomes (ILO)

After a successful course, the student shall

#### Knowledge and understanding

- display knowledge of logistics and materials management and their role in an industrial setting, including knowledge of fundamental concepts, methods and models as well as topical research issues
- display knowledge of design, planning, and control of materials flows focusing on fundamental materials supply, production, distribution, and logistics goals and conflicts

#### Skills and abilities

- demonstrate the ability to design, plan, and control materials flows by means of calculating relevant logistics performance indicators, applying fundamental methods for materials planning and control, and differentiating logistics measures taken
- demonstrate the ability to identify, formulate, analyse and discuss relevant logistics issues and solutions and to plan and carry out logistics investigations
- demonstrate the ability to search for, gather, value, and critically interpret information in relevant logistics issues
- demonstrate the ability to present logistics investigations verbally and in writing

#### Judgement and approach

- demonstrate the ability to suggest and compare different alternatives for design, planning, and control of materials flows focusing on fundamental materials supply, production, distribution, and evaluate their consequences and risks based on different performance indicators
- demonstrate the ability to evaluate relevant social aspects focusing on ecologically sustainable development
- demonstrate the ability to apply a systems perspective

### Contents

The course gives fundamental knowledge and abilities within logistics in an industrial setting. The focus is on logistics goals and performance indicators, stock functions, and materials planning and control.

The course includes the following elements:

- The logistics system
- Materials supply
- Products and production
- Distribution
- Customer service
- Logistics costs and tied-up capital
- Logistics performance indicators
- Stock
- Materials planning and control
- Differentiating
- Ecological sustainability
- Presentation

### **Type of instruction**

The instruction is given through lectures, lessons, seminars, and project work.

The teaching is conducted in English.

### **Prerequisites**

General entry requirements and Physics 1, Chemistry 1, Mathematics 3c or Physics A, Chemistry A, Mathematics D and English 6 or English B in the Swedish upper secondary school system or international equivalent (or the equivalent).

### **Examination and grades**

The course is graded 5,4,3 or Fail.

Registration of examination:

Name of the Test	Value	Grading
Written exam <sup>1</sup>	5 credits	5/4/3/U
Project Work	4 credits	U/G

<sup>1</sup> Determines the final grade of the course, which is issued only when all course units have been passed.

### **Course literature**

The literature list for the course will be provided one month before the course starts.

Bowersox, D.J., Closs, D.J., Cooper, M.B., and Bowersox, J.C., (2013), Supply Chain Logistics Management, McGraw-Hill Irwin, ISBN: 9780071326216