



## COURSE SYLLABUS

# Supply Chain Design, 7.5 credits

*Utformning av försörjningskedjor, 7,5 högskolepoäng*

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<b>Course Code:</b> TFKS22	<b>Education Cycle:</b> Second-cycle level
<b>Confirmed by:</b> Dean Mar 1, 2021	<b>Disciplinary domain:</b> Technology
<b>Revised by:</b> Dean Apr 1, 2023	<b>Subject group:</b> IE1
<b>Valid From:</b> Aug 1, 2023	<b>Specialised in:</b> A1F
<b>Version:</b> 4	

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### Intended Learning Outcomes (ILO)

After a successful course, the student shall:

Knowledge and understanding

- demonstrate comprehension of supply chain management and the skills central to manufacturing and humanitarian supply chains
- demonstrate comprehension of the key components of supply chain design, and their contribution to achieving organizational goals
- demonstrate comprehension of the balance between efficiency requirements and the need for renewal in the supply chain
- demonstrate knowledge of performance measurement for supply chains including sustainability aspects

Skills and abilities

- demonstrate the ability to evaluate different strategic options for the supply chain
- demonstrate the ability to operationalize design options in different types of supply chains
- demonstrate the ability to evaluate the effect of coordination on supply chain performance

Judgement and approach

- demonstrate the ability to evaluate different design alternatives with respect to economic, social and ecological sustainability
- demonstrate the ability to evaluate the performance of different types of supply chains locally as well as globally

### Contents

The course covers the design and management of manufacturing and humanitarian supply chains, as well as how it can impact and organization's structure and performance. It also covers the relations between in-house operations and the supply network.

The course includes the following elements;

- The relationship between the supply chain and the overall strategy of an organization
- Drivers and processes in the supply chain and performance measurement

- Supply chain management as a holistic concept for improving the performance and coordination of society when crises occur
- Supply chain design; the relation between external and internal supply chains, sourcing and distribution.
- The impact of globalization on the supply chain
- Supply chain coordination and performance
- Process technology and the impact developments in technology have on the effectiveness of operations
- Sustainability in supply chains (economic, social and ecological)

### **Type of instruction**

Lectures, seminars, course work.

The teaching is conducted in English.

### **Prerequisites**

Passed courses comprising at least 150 credits in the program and completed courses including Logistics, 7,5 credits, Industrial Production Systems, 7,5 credits and Industrial marketing and purchasing, 7,5 credits (or equivalent)

### **Examination and grades**

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

Registration of examination:

Name of the Test	Value	Grading
Examination <sup>1</sup>	4.5 credits	5/4/3/U
Assignments	3 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 eight weeks before the course starts.

Title: Supply Chain Management: Strategy, Planning, and Operation (2019), 7th Edition (Global Edition),.

Author: Sunil Chopra.

Publisher: Pearson.