

COURSE SYLLABUS

Supply Chain Design, 7.5 credits

Utformning av försörjningskedjor, 7.5 högskolepoäng

Course Code: TFKS22	Education Cycle: Second-cycle level
Confirmed: Sep 01, 2025	Disciplinary domain: Technology
Valid From: Aug 31, 2026	Subject group: Industrial Engineering and Management
	Specialised in: A1F Second cycle, has second-cycle course/s as entry requirements

Intended Learning Outcomes (ILO)

On completion of the course the student shall:

Knowledge and understanding

- demonstrate comprehension of supply chain management and the skills central to manufacturing 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.

Content

The course covers the design and management of different types of supply chains, as well as how it can impact an 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 organizations 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.

Language of instruction is English.

Entry requirements

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 U.

Registration of examination:

Name of the Test	Value	Grading
Examination ¹	4.5 credits	5/4/3/U
Assignments	3 credits	G/U

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

Course literature

Please note that changes may be made to the reading list up until eight weeks before the start of the course.

Chopra, S. (2025). *Supply Chain Management: Strategy, Planning and Operation*. Pearson (the latest version).