



## COURSE SYLLABUS

# Supply Chain Design, 7.5 credits

*Utformning av försörjningskedjor, 7,5 högskolepoäng*

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<b>Course Code:</b> TUFSS28	<b>Education Cycle:</b> Second-cycle level
<b>Confirmed by:</b> Dean Feb 1, 2017	<b>Disciplinary domain:</b> Technology (95%) and social sciences (5%)
<b>Valid From:</b> Jan 1, 2018	<b>Subject group:</b> IE1
<b>Version:</b> 1	<b>Specialised in:</b> A1F
<b>Reg number:</b> JTH 2017/447-313	<b>Main field of study:</b> Production Systems

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### Intended Learning Outcomes (ILO)

After a successful course, the student shall

Knowledge and understanding

- demonstrate comprehension of supply chain organization, performance and drivers
- demonstrate comprehension of distribution and supply chain network design
- demonstrate comprehension of shoring and sourcing decisions in supply chains
- demonstrate comprehension of design for supply chain
- demonstrate comprehension of sustainability issues in supply chain

Skills and abilities

- demonstrate the ability to select the appropriate strategy for a supply chain
- demonstrate the ability to operationalize the chosen strategy
- demonstrate the ability to select appropriate supply chain designs

Judgement and approach

- demonstrate the ability to assess and evaluate different supply chain design decisions
- demonstrate the ability to evaluate supply chain designs based on various perspectives (e.g. performance and sustainability)

### Contents

The course covers the design and management of supply chains and their impact on a company's performance and organization.

The course includes the following elements:

- Understanding the supply chain
- Supply chain performance
- Supply chain drivers
- Distribution network design
- Supply chain network design
- Offshoring, Reshoring, Outsourcing, Insourcing

- Design for supply chain
- Supply chain sustainability

### Type of instruction

Lectures and seminars.

The teaching is conducted in English.

### Prerequisites

Passed courses at least 90 credits within the major subject Mechanical Engineering, Industrial Engineering and Management or Civil Engineering, and 21 credits Mathematics, and completed course Industrial Product Realization, Process-Methods-Leadership, 9 credits. Proof of English proficiency is required (or the equivalent).

### Examination and grades

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

The grade is decided from the results of the written examination and from passed grade of seminars and assignments. The Final grade will only be issued after satisfactory completion of all assessments.

Registration of examination:

Name of the Test	Value	Grading
Examination <sup>1</sup>	3.5 credits	5/4/3/U
Seminars	2 credits	U/G
Assignments	2 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.

Title: Supply Chain Management: Strategy, planning, and operation 6th Global Edition

Author: Chopra S. och Meindl P. (2016)

Publisher: Pearson Education

ISBN10: 1292093560

ISBN13: 9781292093567

Scientific articles and reports according to course memo