



## COURSE SYLLABUS

# Supply Chain Design, 9 credits

*Utformning av försörjningskedjor, 9 högskolepoäng*

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<b>Course Code:</b> TUF27	<b>Education Cycle:</b> Second-cycle level
<b>Confirmed by:</b> Dean Mar 1, 2016	<b>Disciplinary domain:</b> Technology (95%) and social sciences (5%)
<b>Valid From:</b> Jan 1, 2017	<b>Subject group:</b> IE1
<b>Version:</b> 1	<b>Specialised in:</b> A1F
<b>Reg number:</b> JTH 2016/651-313	<b>Main field of study:</b> Production Systems

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### Intended Learning Outcomes (ILO)

After completing the course, the student shall

Knowledge and understanding

- Demonstrate an understanding of how supply chains are built up, its various parts and how the parts interact
- Demonstrate an understanding of how supply chains contribute to strategic competitiveness and defined goals
- Demonstrate knowledge of driving forces of supply chains and how supply chains are evaluated and measured
- Demonstrate knowledge of how supply chains affect different aspects of sustainability

Skills and abilities

- Demonstrate the ability to select the appropriate strategy for a supply chain
- Demonstrate an ability to operationalize the chosen strategy
- Demonstrate the ability to evaluate the impact of coordination on supply chain performance

Judgement and approach

- Demonstrate the ability to assess and evaluate supply chains on a local and global level
- Demonstrate the ability to evaluate a supply chain based on various sustainability perspectives

### 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 topics:

- What is a supply chain and how it can be understood
- How to get a supply chain to support and contribute to achieving the decided production and business strategy
- What driving forces are there in a supply chain and how can performance be evaluated and measured

- How to design a supply network
- How do globalization affect the design of supply networks
- IT and Supply Chains
- Coordination of supply chains
- Sustainability, economically, socially and environmentally, in supply chains

### Type of instruction

Lectures and seminars.

The teaching is conducted in English.

### Prerequisites

Passed courses 180 credits in first cycle, 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 and English Language requirements corresponding to English 6 or English B in the Swedish upper secondary school (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 passed grade for all other tests.

Registration of examination:

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

### Other information

Exemption from entry requirement allowed according to the selection groups of the program, where the course is included.

### Course literature

Literature

The literature is preliminary until one month before the course starts.

Title: Supply Chain Management

Author: Chopra S. och Meindl P. (2010)

publisher: Pearson Education

ISBN: 978-0-13-609451-7

Scientific articles and reports according to list provided at the course start