



KURSPLAN

Designing Supply Chain Operations, 7,5 högskolepoäng

Designing Supply Chain Operations, 7.5 credits

Kurskod:	TSCS21	Utbildningsnivå:	Avancerad nivå
Fastställd av:	VD 2021-03-01	Utbildningsområde:	Tekniska området
Reviderad av:	Utbildningschef 2023-10-25	Ämnesgrupp:	IE1
Gäller fr.o.m.:	2024-08-01	Fördjupning:	A1F
Version:	4	Huvudområde:	Produktionssystem

Lärandemål

After a successful course, the student shall

Kunskap och förståelse

- demonstrate comprehension of supply chain operations management and the skills central to manufacturing and humanitarian supply chains
- demonstrate comprehension of the key components of supply chain design, and their role in achieving organizational goals.
- demonstrate comprehension of various supply chain processes and different ways of arranging them.
- demonstrate comprehension of the balance between efficiency requirements and the need for renewal in the supply chain

Färdighet och förmåga

- demonstrate the ability to evaluate design options in different types of supply chains
- demonstrate the ability to discuss and critically reflect on different types of supply chain design, both verbally and in writing

Värderingsförmåga och förhållningssätt

- demonstrate the ability to evaluate different supply chain design alternatives with respect to economic, social and ecological sustainability
- demonstrate an understanding of the short and long term consequences of decisions in supply chain operations design

Innehåll

The course covers how the resources and processes of operations are designed in manufacturing as well as humanitarian supply chains. The course takes a process perspective on how the overall form, arrangement and nature of transforming resources impact the flow of transformed resources as they move through the operation. It also covers the relations between operations and the supply network in relation to economic, social and ecological sustainability.

The course includes the following elements;

- Process design, various types of process, and how these are designed
- Layout and flow and how different ways of arranging facilities impact the flow through the operation
- Process technology and the impact developments in technology have on the effectiveness of operations
- Supply chain design, the relation between the external and internal supply chains, sourcing, and distribution.

Undervisningsformer

Lectures, seminars, course work.

Undervisningen bedrivs på engelska.

Förkunskapskrav

The applicant must hold the minimum of a bachelor's degree (i.e the equivalent of 180 ECTS credits at an accredited university) in engineering or technology. The bachelor's degree should comprise a minimum of 15 credits in mathematics, and taken course Introduction to Supply Chain Operations Management, 7,5 credits or the equivalent. Proof of English proficiency is required.

Examination och betyg

Kursen bedöms med betygen 5, 4, 3 eller Underkänd.

Poängregistrering av examinationen för kursen sker enligt följande system:

Examinationsmoment	Omfattning	Betyg
Tentamen ¹	4,5 hp	5/4/3/U
Inlämningsuppgift	3 hp	U/G

¹ Bestämmer kursens slutbetyg vilket utfärdas först när samtliga moment godkänts.

Kurslitteratur

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

Author: Sunil Chopra

Publisher: Pearson.