



Supply Chain Management

About Supply Chain Management

The Supply Chain Management specialisation provides an integrated framework for understanding the product and information flows in and between companies that are part of global demand/supply chains in a rapid changing world. It shows how changes in the economy lead to changes in industries of local and nations governments (with a focus on the Netherlands), and how they should and can (re)act. The specialisation focuses on the understanding of the integration of enterprise functions as strategic and tactical management, forecasting, planning and scheduling, and on the co-operation and alignment between companies in supply chains these enterprises are part of, and its needs for positive policies and facilitating infrastructures. The focus is on the next generation innovations that will make supply chain more effective, efficient, smart and sustainable. Creating awareness by playing and designing serious supply chain games contributes to this understanding. In general the specialisation offers insight in a variety of proven management approaches in industries that produce high-quality products that focus in reducing costs and improving services on all relevant levels of an enterprise and their supply chain partners. It also focusses on the multi-actor planning and assessment of possible choices in an economic and societal context.

Expected prior knowledge

The specialisation has a strong engineering and management orientation. Interests in mathematics in decision making, mapping and modelling processes, optimizations, basic statistics and out-of-the-box thinking are desired.

Job Specialisation

Graduates from this specialisation may become a professional, as analyst, manager and/or consultant in the operational, logistics and supply chain field in a wide variety of industries and their service providers, or become policy advisors in the field of the economy, infrastructure and planning as one can find in the field of planning and realization of business parks, ports and inland terminals for a wide range of modalities.

Target group

This specialisation is for students who are interested in intra- and inter- logistical infrastructures and its management in and between (departments of) companies in a wide variety of industries amongst the food, (fine) chemical, transportation, retail, construction, maintenance services, pharmaceutical and metallurgical industry, and that are interested in how they are imbedded in the local, regional and national economy, to be able to build sound policies.

Detailed description

TPM028a – Decision making in Multimodal Transport Systems (5 EC)

The course focuses on multimodal transportation network. It presents the main models and methods to analyse and solve problems arises in this context. The course aims at knowledge acquisition and development of problem solving skills. The goal is to enhance students' analytical and modelling capacities in research and practice. Policy issues relate to (e.g.) the design and the modelling city distribution facilities and (multi-modal) terminal decisions in complex multi-actor settings. It discusses several optimizations techniques to derive solutions from multiple perspectives.

SEN9720 – Logistics and Supply Chain Innovations (5 EC)

The course focuses on logistics and supply chains from raw material origin towards the final consumer and user. It provides an overview of the main logistics management decisions regarding the value adding by means of transportation, warehousing and production. From a supply chain perspectives it covers topics like: global trade and logistics, industrial clusters, supply chain strategies and organisations, supply chain mapping and modelling (SCOR), lean and agile supply chains, partnerships. Next to this the focus will be on logistics and supply chain innovations that will change the supply chain landscape like: sustainability, crosschain control towers, service logistics, internet of things, blockchains and synchronodaly.

SEN9725 – Supply Chain Gaming (5 EC)

The goals this course are:

1. To make students aware about the opportunities to learn via playing serious logistics and supply games.
2. To understand the decisions and trade-offs that play a role within logistics processes that can be experienced within supply chains,
3. To be able to design, develop and produce simple board and computer games to facilitate the awareness of players in respect to supply chain trade-offs and decisions.

Method of Assessment

Written exams and assignments

Additional information

[Supply Chain Management video](#)

Contact

In case of questions, please contact the coordinators Marcel Ludema m.w.ludema@tudelft.nl.