LUND UNIVERSITY

LTH
FACULTY OF ENGINEERING

Programme Syllabus

Master's Programme in Logistics and Supply Chain Management

- Faculty: Faculty of Engineering, LTH
- Programme code: TALSF
- Credits: 120
- Admission level: Bachelor's degree
- Degree level: Second cycle
- Approved by: Programme Board I
- Approval date: 17 February 2026
- Validity: Academic year 2026/2027
- Entry into force: 17 February 2026

1 Aim and outcomes

1.1 Aim

The overall aim is to develop knowledge, skills, and competence in the area of Logistics and Supply Chain Management (L&SCM).

1.2 Outcomes for a Degree of Master of Science (120 credits)

(Higher Education Ordinance 1993:100)

Knowledge and understanding

For a Degree of Master of Science (120 credits) the student shall

- demonstrate knowledge and understanding in the main field of study, including both broad knowledge of the field and a considerable degree of specialised knowledge in certain areas of the field as well as insight into current research and development work, and
- demonstrate specialised methodological knowledge in the main field of study.

Competence and skills

For a Degree of Master of Science (120 credits) the student shall

- demonstrate the ability to critically and systematically integrate knowledge and analyse, assess and deal with complex phenomena, issues and situations even with limited information,
- demonstrate the ability to identify and formulate issues critically, autonomously, and creatively as well as to plan and, using appropriate methods, undertake advanced tasks within predetermined time frames and so contribute to the formation of knowledge as well as the ability to evaluate this work,
- demonstrate the ability in speech and writing both nationally and internationally to report clearly and discuss his or her conclusions and the knowledge and arguments on which they are based in dialogue with different audiences, and
- demonstrate the skills required for participation in research and development work or autonomous employment in some other qualified capacity.

Judgement and approach

For a Degree of Master of Science (120 credits) the student shall

- demonstrate the ability to make assessments in the main field of study informed by relevant disciplinary, social and ethical issues and also to demonstrate awareness of ethical aspects of research and development work,
- demonstrate insight into the possibilities and limitations of research, its role in society and the responsibility of the individual for how it is used, and
- demonstrate the ability to identify the personal need for further knowledge and take responsibility for his or her ongoing learning.

1.3 Specific outcomes for a Degree of Master of Science (120 credits) in Logistics and Supply Chain Management

For a Degree of Master of Science (120 credits) in Logistics and Supply Chain Management students must demonstrate the knowledge and skills required for working independently in research and development or in

another advanced context within the area of Logistics and Supply Chain Management.

Knowledge and understanding

For a Degree of Master of Science (120 credits) students shall

- demonstrate knowledge and understanding in L&SCM, including both broad knowledge of the field and a considerable degree of specialised knowledge in certain areas of the field (e.g. warehousing/material handling, purchasing, production and inventory control, distribution/transportation, logistics, SCM, packaging and their integration in different processes) as well as insight into current research and development work, and,
- demonstrate specialised methodological knowledge in L&SCM
- understand and apply the principles, processes, practices and tools of L&SCM
- understand the interdependencies of functional areas (both within SCM e.g. warehousing/material handling, purchasing, production and inventory control, distribution/transportation, logistics, packaging and related to other areas, e.g. product development and finance) and how performance in each area affects and is affected by integrated holistic SCM.

Competence and skills

For a Degree of Master of Science (120 credits) students shall

- demonstrate the ability to critically and systematically integrate knowledge and analyse, assess and deal with complex phenomena, issues and situations within L&SCM even with limited information
- demonstrate the ability to identify and formulate issues within L&SCM critically, autonomously, and creatively as well as to plan and, using appropriate methods, undertake advanced tasks within predetermined time frames and so contribute to the formation of knowledge as well as the ability to evaluate this work

- demonstrate the ability in speech and writing both nationally and internationally to report clearly and discuss his or her conclusions and the knowledge and arguments on which they are based in dialogue with different audiences, and
- demonstrate the skills required for participation in research and development work or autonomous employment in some other qualified capacity, within L&SCM (e.g. skills in literature review, research problem formulation, research design/methodology, data collection/analysis techniques/simulation, dissemination strategies, change management).

Judgement and approach

For a Degree of Master of Science (120 credits) students shall

- demonstrate the ability to make assessments in L&SCM informed by relevant disciplinary, social, and ethical issues and also to demonstrate awareness of ethical aspects of research and development work
- demonstrate insight into the possibilities and limitations of research, its role in society and the responsibility of the individual for how it is used, and
- demonstrate the ability to identify the personal need for further knowledge and take responsibility for his or her ongoing learning.
- appreciate the merits of collaborating with practitioners and solving problems that are relevant to industry and society at large.

2 Programme structure

The programme is a multidisciplinary approach to the design, planning and management of supply chains and logistics strategies, networks, processes and systems. It should bring a holistic perspective, as well as functional skills. The courses and master's thesis work are planned to include relevant and contemporary issues within the field in order to fulfil the aim and learning objectives.

When designing the programme, four important aspects of knowledge, skills and abilities will be used as foundation. These aspects are:

- Contextual knowledge in relation to logistics and supply chain management in a changing world, from a global to a local perspective.
- Thematic knowledge and skills, e.g., regarding concepts, theories, methods and tools, to make decisions making in logistics and supply chain management.
- Process related knowledge and skills to facilitate the capacity development of others related to logistics and supply chain management.
- Systems perspective, i.e., knowledge and skills to facilitate the understanding and management of the complexity and interdependencies of factors and processes in logistics and supply chain management.

The programme contains eight (8) mandatory courses and one (1) mandatory degree project. In addition, elective courses give an opportunity to either develop a breadth or focus on a selected area. The programme starts with a mandatory course that assures that all students have the same fundamentals, and before the concluding degree project a mandatory course in research methods is given.

Several of the courses will be delivered with active cooperation and involvement of the industry and organizations. The programme is structured to address problem solving techniques with quantitative and qualitative models including case studies, project work, business games and simulations. The general philosophy is that students should get joint experiences to reflect on and discuss with their peers and learn from those experiences and discussions and not only from lectures and literature.

2.1 Courses

The courses included in the programme are indicated in the timetable.

2.2 Further studies

On completion of the second-cycle degree, students have basic eligibility for third-cycle studies.

3 Admission requirements

A Bachelor's degree in industrial engineering and management, mechanical engineering or equivalent. Completed one course in computer programming, one course in mathematical statistics/probability theory, and one course in business logistics, operations management or supply chain management. English 6.

4 Degree

4.1 Degree requirements

For a Degree of Master of Science (120 credits) students must successfully complete courses comprising 120 credits, including a degree project worth 30 credits. At least 90 credits must be second-cycle credits and at least 60 credits of those must be in the main field of study, including the degree project.

4.1.1 Transitional provisions

The transitional provisions apply when it is no longer possible to complete discontinued compulsory courses. If the courses selected as replacement courses are worth fewer credits than the courses replaced students are to select optional courses for the remaining credits. The following transitional provisions have been established:

MIOF10 Production and Inventory Control 7,5 credits

was offered for the last time in 2022/2023 and is replaced by:

- MIOF11 Operations Analytics 7,5 credits

MION01 Management of Production and Inventory Systems 7,5 credits

was offered for the last time 2022/2023 and is replaced by:

- MION02 Supply Chain Analytics 7,5 credits

MION40 Simulation of Industrial Processes and Logistic Systems 7,5 credits

was offered for the last time 2022/2023 and is replaced by:

- MION41 Simulation of Supply Chain Systems 7,5 credits

MION45 Operations Strategy 7,5 credits

was offered for the last time 2022/2023 and is replaced by:

- MION46 Decision Analytics 7,5 credits

MTTN90 Sustainable and Circular Supply Chains 7,5 credits

was offered for the last time 2024/2025 and is replaced by:

- MTTN95 Digital Supply Chains 7,5 credits

4.2 Degree and degree certificate

When students have completed all the degree requirements, they are entitled to apply for a certificate for a Degree of Master of Science (120 credits). Main Field of Study: Logistics and Supply Chain Management.