Packaging Logistics – Education

LUND UNIVERSITY | PACKAGING LOGISTICS

About us

Packaging Logistics contributes to a sustainable society by integrating packaging and product development, logistics and supply chain management in technical, economic and environmental life cycle perspectives for new sustainable product, process and service innovations.

We are unique because of our emphasis on a holistic packaging approach. We are recognised as one of the world's leading research and teaching groups in the integral field of packaging and logistics. A national and international inventory of academic research directed specifically towards packaging logistics revealed only one source, namely, Packaging Logistics, Design Sciences, at Lund University's Faculty of Engineering LTH.

OUR MISSION
Packaging Logistics is devoted to the advancement of knowledge, to motivate and co-create holistic solutions for sustainable development.

Master Courses

Packaging Logistics offers students advanced courses in several educational programmes at the Faculty of Engineering LTH. All courses are strongly linked to our research and carried out in close collaboration with industry.

OUR COURSES

- Packaging Technology and Development
- Packaging Logistics
- Applied Logistics Simulation
- Food and Packaging Innovation
- Engineering Training Course
- Master Thesis

Packaging Technology and Development, MTTN40

Packaging Technology and Development is an interdisciplinary 7.5-credit course that deals with packaging technology and development from consumer, product, and environmental perspectives.

The aim of the course is to carry out a packaging development project with a related industry in peer groups of students from different programmes at LTH.

The project helps you to understand how to work in package development projects. It brings awareness of the different issues that have to be considered, such as user perspectives, the influence packaging has on product protection, the environment and marketing. We work with packaging prototypes and posters to explain the project ideas and results.

Lectures and company visits give a basic platform for packaging knowledge. The lectures are held either by faculty or guest lecturers from the related industry.

After completing the course, the student shall be able to:

- Develop a packaging system based on user needs, product requirements and sustainability aspects
- Understand the development process for integrated product and packaging development
- Identify the features of the most important packaging materials.

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Packaging Logistics, MTTN35

The main task of the course is to conduct a Packaging Logistics Evaluation (PLE) project. Lectures and seminars are designed to continuously enhance the students' knowledge and skills, and guide them in the process of conducting a PLE project. The project is intended to improve your understanding of packaging logistics in general and particularly the complexity and trade-offs related to a packaging system in a real-world context. Thus, contacts with industry are part of the project. The purpose of the project is to evaluate and improve a current packaging system from a packaging logistics perspective. The project is conducted in groups and the results should be presented in a report. The groups will consist of 3-4 students and are put together by the course supervisor. Each group will randomly be assigned a product that will be the unit of analysis for the project. This means that empirical data from companies needs to be collected. The students are expected to contact all necessary actors in the supply chain. At the end of the course, the groups present their project.

Students will also conduct a case (GLIMMA), visit Smurfit Kappa in Eslöv and be introduced to the software CAPE. There is a written exam at the end of the course. The final grade for the student depends on the results of the exam and on how well the PLE project was carried out.

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Applied Logistics Simulation, MTTN55

This course gives you an understanding of how you can analyse complex systems, especially packaging and logistics systems, with dynamic simulation. Developing simulation models of complex systems enables you to analyse system behaviour, system performance and to describe "what if"-scenarios without interrupting the real system.

At the end of the course you will be able to identify simulation scopes, develop and validate models, run experiments and do statistical analysis. To gain the latest knowledge within simulation you will also be given the opportunity to learn from companies using simulation.

The central assignment of the course is a simulation project in the industry where you identify and select your own real system to model. It is in this project you apply and show your attained modelling and simulation skills.

The course is based on computer aided lectures combined with individual simulation exercises, feedback seminars, and guest lecturers from industry. The lecture is used to introduce you to simulation and to the simulation software. Lectures will mostly be discussions around topics important for solving compulsory assignments and to facilitate your project. This will create a better understanding of the simulation process and help you in the learning process. The feedback seminars will give you continuous feedback throughout your simulation project.

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Food and Packaging Innovation, MTTN50

This is a senior project course in Food and Packaging Innovation, which gives students practical experience in the design of food and packaging innovations. The course is based on a generic design thinking process and includes lectures and exercises related to design processes and methods within the topic of food and packaging.

Through needs-motivated projects guided by coaches, course participants will spend the major part of the course creating conceptual solution proposals and evaluating these with respect to three overlapping criteria: desirability, feasibility and viability.

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Engineering Training Course

In the Engineering Training Course, the Faculty of Engineering LTH gives students in the Master of Science in Engineering programmes the chance to get acquainted with their future professional roles and the conditions at a workplace. This is done by having eight weeks of continuous work at a company.

The course is 15 credits and can be taken after year 3 in the study programme. The training has to be done according to an approved project plan, which is confirmed by an agreement between the student, the supervisor at the company and the faculty supervisor. The course is optional within all Master of Science in Engineering programmes, but is not listed among other optional courses in the schedules. You can receive student allowances/grants when taking this course, even if it is during the summer. We at Packaging Logistics are most willing to help you as faculty supervisors!

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Master Thesis Project

We provide high quality supervision of master theses in the multi-disciplinary field of Packaging Logistics, which includes fields such as:

- Logistics and Supply Chain Management
- Innovation and Product Development
- Technology and Industrial Management
- Sustainable Development
- Food and Packaging Science

All master theses are carried out in close collaboration with industry. If you have your own idea or suggestion for a master thesis project, we will help you!

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THE WORK WAS FUN AND VARIED!

Amanda Magnusson about her time working on her Master's at Packaging Logistics. Her thesis was about developing a food concept for young athletes including product development, logistics and packaging issues.

– The work was fun and varied, and the atmosphere at the department was welcoming and inspiring. Immediately following graduation I was fortunate to get a project employment at Packaging Logistics, all thanks to recommendations from contacts I made while working on the thesis, says Amanda Magnusson.

In recent months, Amanda Magnusson has worked in a research project on innovative packaging development.

– After project employment, I have through Packaging Logistics contacts been recommended for a job as a trainee in the food and packaging industry, says Amanda Magnusson.

– In short, my thesis at Packaging Logistics created many contacts that will be of great value to me in the future, says Amanda Magnusson.

Logistics Service Management

This is a programme focusing on how to apply service management to the logistics discipline. The education is inter-disciplinary and combines subjects from service management with logistics based on a sustainable perspective.

The Logistics Service Management programme teaches you the most effective management and organizational strategies and concepts to make a difference in the global marketplace. You are trained to understand the actual needs of the customer and translate them into the design and performance of the supply chain and its performance.

Company involvement is an important part of the education that is based on case studies and projects with companies in the region that will give you rigorous training, including assignments, reports, presentations, and group projects, all designed to help you to develop the confidence and proficiencies needed to find solutions in real-life business situations.

The education also covers public organizations' involvement in the regulation and planning of transport, logistics and infrastructure service provision at the regional, national and international levels.

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Food Innovation and Product Design – FIPDes

FIPDes is an Erasmus Mundus Master programme in Food Innovation and Product Design scheduled over two academic years. The overall objective of FIPDes is to provide top-level and up-to-date education that qualifies the graduates to cope with the huge challenges in the sector of food innovation along with product design and packaging.

FIPDes is a joint programme coordinated by a consortium of four universities; AgroParisTech (France), Dublin Institute of Technology (Ireland), UNINA (Italy) and Lund University. Studies are conducted in two or three universities depending on student interests. Students from all over the world can apply for the FIPDes scholarships. In Lund the students gain in-depth knowledge into food packaging design.

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Doctoral Studies

Packaging Logistics at Lund University provides an opportunity to develop knowledge and competence in an applied, multidisciplinary research field that is unique in Sweden and a forerunner internationally. The Packaging Logistics Division is regarded as excellent in the field. Research is most often carried out in near collaboration with related industry. The research focus is divided into three strategic subareas:

- Packaging logistics innovation
- Packaging logistics sustainability
- ICT and traceability in supply chains

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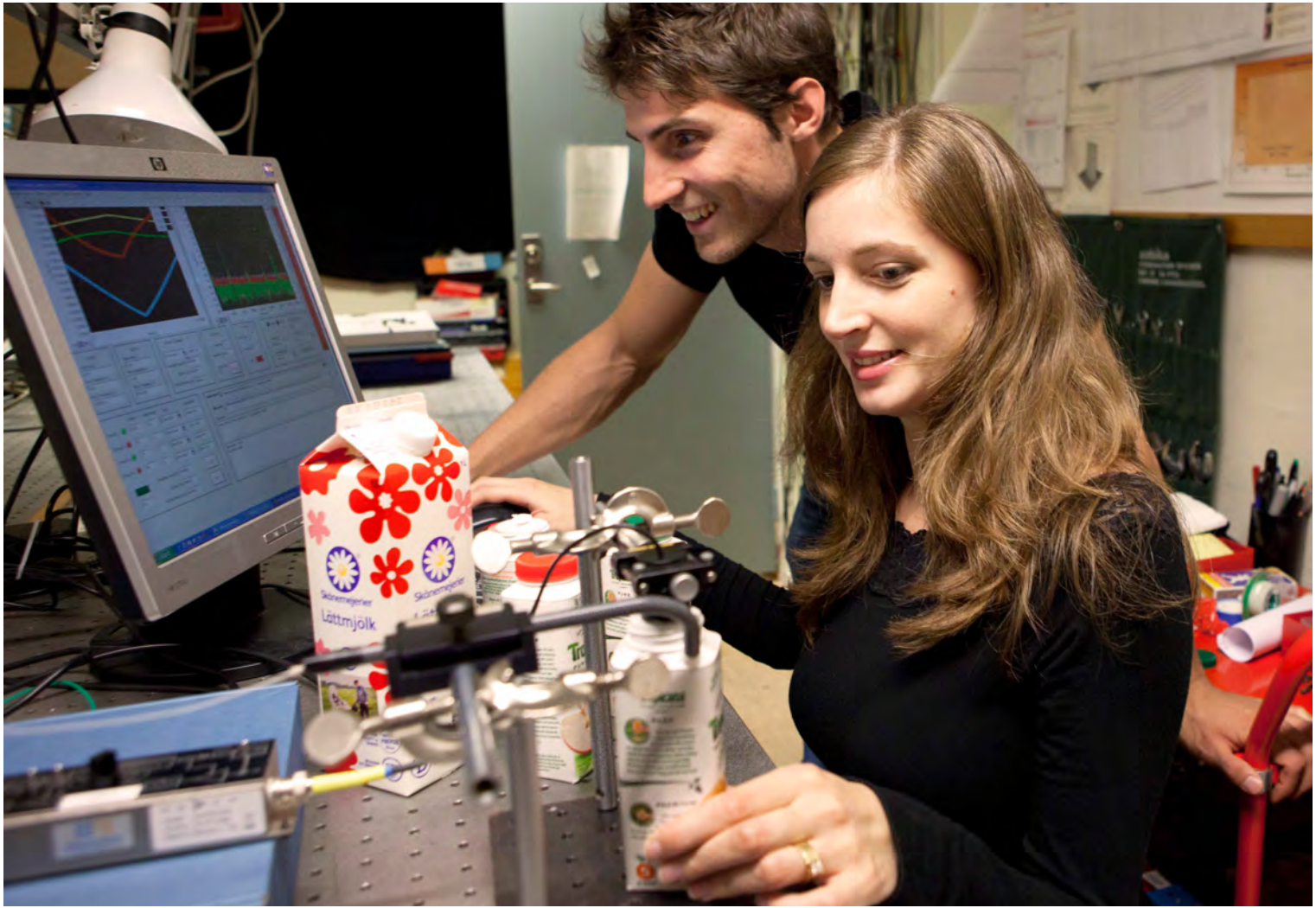
Skånemejerier
Lättmjölk
Skånemejerier

A DYNAMIC AND OPEN ENVIRONMENT!

– Packaging Logistics has both the holistic approach and cutting-edge expertise in the packaging area that is important to me and my research. Furthermore, it's very inspiring and instructive to experience other research environments and discuss with other researchers within my own area, says Lisa Mattsson, industrial doctoral student at Karlstad University, who is spending some time at Packaging Logistics in Lund.

Lisa Mattsson's area of research is to analyse and increase the knowledge of losses of fresh fruit and vegetable in the food supply chain, with focus on the role of packaging for minimizing the losses. Amongst other things, she works with mapping the flow of fruit and vegetable at a number of retail stores in order to quantify how much fresh fruit and vegetable is lost and wasted, what causes the losses, how much the losses cost, calculated both in terms of economic and environmental cost, and identify how these losses can be prevented.

When Lisa Mattsson reflects on the future she says:
– Out of the world's 7 billion people, about 1 billion suffer from hunger and chronic malnutrition. That's why it's important to continue working to reduce the amount of food that is thrown away. I would like to continue working as a researcher in order to contribute with new knowledge, or return to the UN where I worked before I started my research, to work with environmental and development issues.

– After my first day on Packaging Logistics, my feelings can be described by the following statement: a dynamic and open environment with committed and inspiring people! Lisa Mattsson, industrial doctoral student at Karlstad University, who is spending some time at Packaging Logistics in Lund.

A UNIQUE OPPORTUNITY!

Mazen Saghir is a former doctoral student at Packaging Logistics. Today he is Head of Distribution at Apoteket. About the time at Packaging Logistics, he says:

– Conducting studies and research in the field of logistics at Faculty of Engineering, LTH, was for me a unique opportunity. Beside experiencing the process of research, meeting brilliant colleagues and interacting with industry, I had the privilege to develop my professional skills and a humble attitude towards knowledge and the perfection of the world.

– Without a doubt, I would not have accomplished the same success in my professional career. I developed concrete knowledge about logistical strategies, processes and operations. I developed skills and awareness about methods, tools and excellence in research, teaching, project management and also leadership. With the support of my supervisor, I had the opportunity to contribute to the establishment of the subject and the Division of Packaging Logistics and practice leadership together with my fellow colleagues. Every bit of experience from my time at the Division is helping me today to maintain professionality and excellence in my role as Head of Distribution at Apoteket.

Contact us!

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