

Logistics and Quality Development

Programme course

6 credits

Logistik och kvalitetsutveckling

TETS44

Valid from: 2017 Spring semester

Determined by

Board of Studies for Mechanical
Engineering and Design

Date determined

2017-01-25

Main field of study

Industrial Engineering and Management

Course level

First cycle

Advancement level

G2X

Course offered for

- Energy-Environment-Management M Sc in Engineering

Entry requirements

Note: Admission requirements for non-programme students usually also include admission requirements for the programme and threshold requirements for progression within the programme, or corresponding.

Prerequisites

Basic knowledge within industrial engineering and management.

Intended learning outcomes

After having completed the course the student should

- be acquainted with basic principles, tools and methods for logistics and quality development
- understand how logistics and quality development can contribute to more efficient and effective flows and processes, as well as increased competitiveness
- have knowledge about important material and information flows and business processes, internally (within an organization) as well as externally (in cooperation with other parties).
- understand how flows and processes can be designed to meet different stakeholders' needs within and outside the organization
- understand what constitute efficient and effective flows and processes
- be able to perform basic mapping and analysis of flows and processes from a logistics and quality development perspective
- be acquainted with methods for process development and structured improvement
- understand how logistics and quality development affects and contributes to sustainability efforts

Course content

Business processes, material- and information flows
Logistics activities
Principles and methods for quality development
Effectivity measurement and key performance indicators
Policies, strategy and goals for the operations
Quality management systems
Process management
Methods for mapping and analyzing flows and processes
Methods and tools for structured improvement work
Sustainability aspects on logistics and quality development

Teaching and working methods

Lectures presenting important knowledge areas. Assignments and exercises focusing on selected areas, where the students deepen their knowledge and practice different methods. The selected areas are connected with the group assignments in order for the students to expand their learning and reflect over the course content.

The course runs during the entire autumn semester.

Examination

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|------|----------------------|-----------|------------|
| UPG1 | Assignments | 2 credits | U, G |
| DAT1 | Computer examination | 4 credits | U, 3, 4, 5 |

Grades

Four-grade scale, LiU, U, 3, 4, 5

Other information

Supplementary courses: Courses within Logistics (e.g. Sustainable Logistics Systems) and Quality Development (e.g. Lean Production)

Department

Institutionen för ekonomisk och industriell utveckling

Director of Studies or equivalent

Björn Oskarsson

Examiner

Bonnie Poksinska

Course website and other links

Education components

Preliminary scheduled hours: 48 h

Recommended self-study hours: 112 h

Common rules

Regulations (apply to LiU in its entirety)

The university is a government agency whose operations are regulated by legislation and ordinances, which include the Higher Education Act and the Higher Education Ordinance. In addition to legislation and ordinances, operations are subject to several policy documents. The Linköping University rule book collects currently valid decisions of a regulatory nature taken by the university board, the vice-chancellor and faculty/department boards.

LiU's rule book for education at first-cycle and second-cycle levels is available at http://stydokument.liu.se/Regelsamling/Innehall/Utbildning_pa_grund-_och_avancerad_niva.