Logistics and Quality in Health Care

Programme course

6 credits

Logistik och kvalitet inom vården

TETS56

Valid from: 2017 Spring semester

Determined by
Board of Studies for Industrial Engineering and Logistics

Date determined
2017-01-25

Main field of study
Industrial Engineering and Management

Course level
Second cycle

Advancement level
A1X

Course offered for
- Industrial Engineering and Management - International, M Sc in Engineering
- Industrial Engineering and Management, M Sc in Engineering
- Mechanical Engineering, 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 course in Logistics and/or Quality control

Intended learning outcomes

The overall aim is that the student should acquire knowledge concerning how knowledge about logistics and quality control (primarily developed in industry and trade) can be applied on a health care context.
After having taken the course, the students should be able to:

- describe and analyse the health care process, including actors involved, decision taken and by whom, and information flow and IT support needed to make correct decisions.
- describe the major problems within health care logistics, and relate those to the health care process.
- in a truthworthy manner discuss differences between goods producing and service organisations, and show what implications these differences have on improvement work within logistics and quality control.
- reflect upon, and argument for, the importance of knowledge within logistics and quality control, in order to develop organisation and working practices in health care.
- explain relevant connenctions in different types av health care processes, and analyse the effect when these processes are changed.
- describe possibilities and limitations of using quality control and logistical models in a health care context.
- critically review and evaluate the applicability of different methods and models for mapping and analysis of health care processes.
- use chosen tools and methods to improve health care processes, and to develop material that can serve as a basis for decisions.

Course content

The starting pont is to illuminate the differences between goods producing organisations and health care, which produces services. In the next step, we go into what consequences this has on the use of logistics and quality control. Different methods and tools suitable for health care are presented, for example: Process mapping, Statistical process control, Demand driven planning.

Teaching and working methods

Theoretical principles, models and tools are presented on lectures, where also study tasks are presented and discussed. Field trips support deeper understanding of the health care context. Hand-in exercises are used to more in practice treat things mentioned on lectures and in literature.

Examination

UPG1	Hand-in assignments	2 credits	U, G
TEN1	Written examination	4 credits	U, 3, 4, 5

Good acheivements on UPG1 may render bonus credits on the exam, and thereby affect the final grade on the course.

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

Department
Institutionen för ekonomisk och industriell utveckling

Director of Studies or equivalent
Björn Oskarsson

Examiner
Håkan Aronsson

Course website and other links
http://www.iei.liu.se/logistik/tets41-vardlogistik?l=sv

Education components
Preliminary scheduled hours: 32 h
Recommended self-study hours: 128 h

Course literature
Forskningsartiklar som meddelas inför kursstart.

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://styrdokument.liu.se/Regelsamling/Innehall/Utbildning_pa_grund-_och_avancerad_niva.