



Course syllabus

Faculty Board of Science and Engineering
School of Engineering

1SE501 Inköp, distribution och operationsanalys, 7,5 högskolepoäng
Procurement, distribution and operations research, 7.5 credits

Main field of study

Total Quality Maintenance

Subject Group

Industrial Engineering and Management

Level of classification

First Level

Progression

G1F

Date of Ratification

Approved by the Board of the School of Engineering 2010-03-03

The course syllabus is valid from autumn semester 2010

Prerequisites

Basic eligibility as well as knowledge within logistics (corresponding to SEA915/SE9001) and 15 hec in economics (corresponding to JEA900) and 15 hec in mathematics (corresponding to MAA701/MA7011 and MAA703/MA7031).

Expected learning outcomes

After completing the course the student is expected to be able to

- use operation analysis (linear programming) to handle optimization problems within the field of supply chain management.

Content

The course comprises the following elements:

- Prognostication
- Planning at different time levels
- Inventory control
- Logistics networks designing
- Operations analysis
- Problem formulation
- Graphic solutions
- The simplex method
- Linear programming

Type of Instruction

The teaching consists of lectures, group work, seminars, laboratory work, assignments and a case study.

Examination

The course is assessed with the grades U, 3, 4 or 5.

On request, students may have their credits translated to ECTS-marks. Such a request must be sent to the examiner before the grading process starts.

The examination is based on submitted reports and oral or written presentation of compulsory assignments.

Course Evaluation

A written course evaluation will be carried out at the end of the course in accordance with the guidelines of the University. The course evaluation will be filed at the department.

Credit Overlap

The course cannot be included in a degree along with the following course/courses of which the content fully, or partly, corresponds to the content of this course: Overlaps fully with SEC924.

Other

Some elements of the course may entail costs defrayed by the course participant.

The course language is English if international students attend the course.

Required Reading and Additional Study Material

Required reading

David Simchi-Levi, Philip Kaminsky, Edith Simchi-Levi, *Designing and Managing the Supply Chain: Concepts, Strategies and Cases*, (Book and CDROM), Publisher: Irwin/McGraw-Hill, Latest edition. 321/321 pages.