

TAOP18 Supply Chain Optimization, 6 hp

ORGANIZATION

The course is organized around three cases, where the students work with problem analysis, modelling and solving the problems. The topics of the 7 lectures are examples of different optimization problems that arise in industry, production and supply chain flows, theory and how to solve the optimization problems.

COURSE CONTENTS

The course focus is on modelling and solving optimization problems in production planning and transport planning. The cases deal with optimal scheduling and supply chain optimization.

COURSE LITERATURE

Reference to literature will be available on (some) of the slides.

PREREQUISITES

A first course in Optimization, or Operations Research, is absolutely necessary. Preferably a second course as well, with emphasis on modelling aspects. Basic programming knowledge (no specific language required) is also highly recommended.

TAOP07 Introduction to Optimization (in Swedish)

TAOP24 Optimization, advanced course (in Swedish)

TAOP62 (TAOP37) Operations research, extended course (in Swedish)

TAOP88 Engineering Optimization (in Swedish)

or corresponding courses.

TEACHER AND EXAMINER

Nils-Hassan Quttineh, tel: 28 21 85, e-mail: nils-hassan.quttineh@liu.se

Office: B-building, A-corridor between entrance 23 and 25, room 3A:618

HOME PAGE

The course homepage is <http://courses.mai.liu.se/GU/TAOP18/>

All relevant information will be posted on LISAM.

EXAMINATION

The course is examined through 3 projects/cases that are to be made in groups of two students.

Project	Available	Due date
1	Nov 8th	Nov 23rd
2	Nov 21st	Dec 7th
3	Dec 5th	Dec 21st

A written report for each of the cases together with one oral presentation for one of the projects (at the choice of the students). The oral presentations are scheduled a few days after each deadline.

GRADING

Projects: Each project is graded from 0–40 points. Correct answers to specific questions will give you 30 points. At most 10 points is given for the general structure of the report, presentation of results, discussion, relevant references, etc. (The points for the report is limited to 1/3 of the received points from questions.)

Course grade: To pass the course, you need at least 15 points/project.

Grade limits: Grade 3 : > 50 points. Grade 4 : > 70 points. Grade 5 : > 90 points.

To get grade 4, at least two of the projects must receive 25 points or more.

To get grade 5, at least two of the projects must receive 30 points or more.

Oral Presentation: The oral presentation is only Pass or Fail, but mandatory. It might also improve your grade in borderline cases (grade 3/4 or grade 4/5).

TIMEPLAN

