

Common and specific assignment instructions

General requirements for the three assignments

All three assignments must be performed in groups of two persons. The project groups must be defined on the course's activity page in PingPong under "Project groups".

In each of the assignments you shall

- formulate a suitable optimization model (or models) of the problem as described in the information sheet;
- solve the problem(s) modelled using a mathematical modelling software and an optimization solver (see the notes from Lecture 2);
- analyse the results from your elaborations according to the questions presented in the respective information sheet.

The mathematical optimization modeling software Julia/JuMP and some optimization solvers are presented on Lecture 2 (see the course homepage).

Before starting to work on the assignments, study and elaborate on "*Computer exercise: Linear programming and software solvers*" (see the course homepage).

To pass each assignment you should (in groups of two persons) write a self-contained report on the project work (maximum six pages plus figures and illustrations), in which you describe, discuss, and give satisfactory explanations to the issues presented in the respective information sheet.

The report shall be written in English, preferably using LaTeX, and handed in as a PDF-file. The number of hours spent on assignment work shall be estimated and noted on the first page of the report.

You may discuss the assignments with other students. Each group must, however, hand in their own report and solution.

The report shall be submitted in PingPong and will be automatically checked for plagiarism via <http://www.urkund.com>.

The file containing the assignment report shall be named "Name1-Name2-Assn.pdf", where "Name k ", $k = 1, 2$, is your respective family name and n is the number (1, 2, 3a, or 3b) of the assignment. Write the authors' names also inside the report.

Each student must also hand in an individually written report describing the distribution of the project work within the group and how the cooperation has worked out (preferably as a "comment" in the submission tool in PingPong).

Specific requirements for the assignments

Specific requirements for Assignment 1

Some of the questions are mandatory. Students aiming at grade 4, 5, or VG must also answer a number of additional questions, and the quality of the assignment report must be high. The details are given in the specific assignment information.

Specific requirements for Assignment 2

Some of the questions are mandatory. Students aiming at grade 3 or G must answer *at least one* of two specific questions. Students aiming at grade 4, 5, or VG must answer *all* the questions and the quality of the assignment report must be high. The details are given in the specific assignment information.

Each individual student should also—for the peer review—submit the same report in PingPong. Each individual student shall then write a peer review (maximum 1/2 page) to another group's report and submit it in PingPong.

Specific requirements for Assignment 3

Before starting to work with the assignment, each group must choose one of the Assignments 3a and 3b from a "doodle" revealed in PingPong, under "Assignments". This choice also determines the time when your assignment is to be orally presented.

For students aiming at grade 4, 5, or VG the quality of the assignment report must be high.

Each group shall present their findings orally at a seminar. Each group is given ≈ 12 minutes, including time for questions. A laptop and projector will be available for the presentations. You will be asked to provide (written) feedback on each others oral presentations; this will be organized during the respective seminars. Presence is mandatory at at least one full seminar ($\approx 2 \cdot 45$ minutes).

Deadlines for choices, submissions and presentations 2019

Assignment 1

- group submission of report, April 10, 23:55
- individual collaboration report, April 11, 06:00–23:55

Assignment 2

- group submission of report, May 10, 09:30
- individual submission of report for peer review: May 10, 12:00–17:00
- individual collaboration report, May 11, 06:00 – May 13, 23:55
- individual peer review (opposition): May 14, 23:55

Assignment 3

- choice of assignment and time for presentation, May 10, 18:00 – May 13, 23:55
- group submission of report, May 24, 23:55
- individual collaboration report, May 25, 06:00 – May 27, 23:55
- group oral presentation at a seminar, May 27–29 (specific schedule)