TMS031 and MSA250 Design of Experiments (Spring 2018)

Projects

The course includes two obligatory projects: the first one is to find the optimal design of a paper helicopter, see <u>www.paperhelicopterexperiment.com</u>, and the second is a problem of your own. Evaluation of the first project will be based on your written reports. For the second project, a detailed project plan and a short presentation by the group members are required. The presentation of the second project is scheduled according to the <u>plan of lectures</u>. It is recommended to work in groups of (at most) four participants. Once you have formed a group, please send an e-mail to Henrik with contact details (name and email) for the members in your group. All hand-ins for the projects should also be sent to <u>Henrik Imberg</u>.

For both projects you can get counseling by Henrik in room L3070 at the Department of Mathematical Sciences. The consultation (15-20 minutes per group and project) is not obligatory but highly recommended, as you may also ask any questions related to the projects. It is much appreciated if you send some material (suggested experimental design, project plan, draft report etc.) in advance, e.g. when booking the time for counseling.

Project 1: The paper helicopter experiment

Instructions can be found on this page and paper helicopter templates are found here.

Deadline for the report of the first project is Feb. 9; 23:59. The report should include an introduction to the problem, details on the experimental setup and design, a brief description of the statistical methods used, results of data analysis, and a discussion.

You will get written feedback on your reports no later than Feb 16. You then have the possibility to revise your reports and send in a final version. Deadline for the revised version of the report is Mar 9; 23:59.

Consultation hours for the first project are

Jan. 30; 08:00-12:00 and/or Feb. 6; 08:00-12:00.

Sign up for a consultation time here or by sending an email to Henrik Imberg.

Project 2: A problem of your own

Project instructions, including some project suggestions, are found <u>here</u>. Note that you can choose any project on your own that fits in this course.

Deadline for the project plan is Feb. 16; 23:59. Please wait for response on the project plan before conducting the experiment.

Date for presentations of is Mar 1; 8.00-12.00. Please send in presentation files (power-point or similar) before the presentation so that we can prepare questions and feedback. We are happy to receive your presentation files no later than Feb. 26; 23:59.

Consultation hours for the second project are

Feb. 13; 8:00-12:00 and Feb. 20; 08:00-12:00.

Sign up for a consultation time here or by sending an email to Henrik Imberg.