



Design of Experiments (FMSF65/MASC05) – vt 2019

Requirements: Basic course in Mathematical statistics and experience of programming. The course gives 7.5 credits.

Homepage

Department homepage: <http://www.maths.lu.se>

Administration

Department secretary: Maria Lövgren, email: marial@maths.lth.se

Teachers

Course responsible: Dr. Fredrik Olsson, tel: 046-222 85 52, email: fredrik.olsson@matstat.lu.se

Computer Labs and Project

In this course there are 6 *compulsory* computer labs. Each lab will be assessed during the lab. That is, no reports are needed for these computer labs.

A (small) project should be performed at the end of the course. This project is preferably done group-wise (2-3 students in each group). The project is *compulsory* and graded as: G (approved) or F (failed). If the project receives the grade F, you need to do some re-work in order to get the project approved. Note that you do not receive a final grade for the course until *all* compulsory tasks are approved.

Assessment

The assessment is in the form of a traditional 5 hour written exam. The grades for LTH-students are: F (failed), 3, 4 or 5. The grades for NF-students are F (failed), G or VG.

Literature

- Box, Hunter, and Hunter: Statistics for experimenters, Design, Innovation, and Discovery, 2nd Edition. Wiley, 2005, ISBN: 978-0-471-71813-0.
- Some additional material (in form of exercises, labs, and project description).

Schedule

L = Lecture

PS = Problem solving session

CS = Computer lab session

EX = Exercises (see PDF at the course website) ★ = Compulsory

Date:	Time:	Type:	Room:	Contents:
Mon 25/3	8-10	L	E:B	Introduction, Ch. 1.
Thu 28/3	10-12	PS	MH:362D	Problems in EX: 1.1–1.7, 1.9
Mon 1/4	8-10	L	E:B	Ch. 2-3.
Thu 4/4	10-12	PS	MH:362D	Problems in EX: 1.8, 2.1–2.6
Fri 5/4	8-10	CS★	MH:230	Lab 1
Fri 5/4	10-12	CS★	MH:230	Lab 1
Mon 8/4	8-10	L	E:B	Ch. 4 (ANOVA)
Tue 9/4	15-17	PS	MH:362D	Problems in EX: 2.7, 2.8, 3.1, 3.2, 3.4
Fri 12/4	8-10	CS★	MH:230	Lab 2
Fri 12/4	10-12	CS★	MH:230	Lab 2
Mon 15/4	8-10	L	E:B	Ch. 4 (Blocking, Latin squares)
Tue 16/4	15-17	CS★	MH:230	Lab 3
Wed 17/4	8-10	CS★	MH:230	Lab 3
Mon 6/5	8-10	L	E:B	Ch. 5
Thu 9/5	10-12	PS	MH:362D	Problems in EX: 3.3, 3.5, 3.6, 4.1–4.3
Fri 10/5	8-10	CS★	MH:230	Lab 4
Fri 10/5	10-12	CS★	MH:230	Lab 4
Mon 13/5	8-10	L	E:B	Ch. 6
Thu 16/5	10-12	PS	MH:362D	Problems in EX: 4.4–4.6, 5.1, 5.2
Fri 17/5	8-10	CS★	MH:230	Lab 5
Fri 17/5	10-12	CS★	MH:230	Lab 5
Wed 22/5	8-10	CS★	MH:230	Lab 6
Wed 22/5	10-12	CS★	MH:230	Lab 6
Thu 23/5	10-12	PS	MH:362D	Problems in EX: 5.3–5.6
Mon 27/5	8-10	L	E:B	Ch. 10 and summing up
Tue 28/5	10-12	CS	MH:230	Catching up lab
Wed 29/5	10-12	CS	MH:230	Catching up lab