SOS3003 FALL 2009

Applied statistical data analysis for the social sciences (Anvendt statistisk dataanalyse i samfunnsvitskap)

Teaching period

Weeks 35-47, 28 August- 20 November

Lectures/ seminars: Erling Berge

Exercises: Joakim Døving Dalen

Time for Lectures/ Seminars:

Friday 12:15-14:00 and 14:15-16:00 in seminar room D150

First class: 28 August 12:15-14:00.

First seminar: 28 August 14:15-16:00 Review of some elementary mathematics useful for the class,

Time for Exercises using SPSS

Wednesday 10:15-12:00 or Thursday 14:15-16:00 in PC-room 10349

First exercise: 2 September 10:15-12:00

NB Wednesdays 16 and 23 September the time for the exercise has been moved to 15.15-17.00 since the pc-room has been taken for other activity

Deadline for essay: 23 November 12:00

Written examination: 1 December

Prerequisite:

SOS1002 or equivalent. Ringdal, Kristen. 2000. **Enhet og Mangfold**. Bergen: Fagbokforlaget. Particularly chapters **14, 15, 16, 17, 18, and 19. Most important is chapter 18**

Required reading (pensum)

Hamilton, Lawrence C. 1992. *Regression with graphics.* Belmont: Duxbury.

Hamilton, Lawrence C. 2008. A Low-Tech Guide to Causal Modelling.
http://pubpages.unh.edu/~lch/causal2.pdf

Allison, Paul D. 2002. *Missing data.* No 136 Quantitative Applications in the Social Sciences. London: Sage**.**

Recommended additional literature

To prepare for the class the following reading is recommended:

- Hagle, Timothy M. 1995. *Basic Math for Social Scientists: Concepts.* No 108 Quantitative Applications in the Social Sciences. London: Sage. Particularly pages **1-13** from the "Introduction"

To translate between the theoretical text of Hamilton and the practical world of SPSS the following book is recommended:

- Eikemo, Terje Andreas, and Tommy Høyvarde Clausen. 2007. *Kvantitativ analyse med SPSS: en praktisk innføring i kvantitative analyseteknikker.* Trondheim: Tapir akademisk forl.

Fall 2009		Schedule for lectures and seminars
	20-21 Aug	Opening of term for the department, all day in D130
1	28 Aug	Opplegg/ Føresetnader Målsetting Pensum Semesteroppgåve • Variable distributions.　　　　　Hamilton Ch 1 s1-23 • Bivariate regression　　　　　　Hamilton Ch 2 s29-59 Seminar: Some elementary mathematics useful for the class
2	4 Sep	• Multivariate regression I　　　　Hamilton Ch 3 s65-72 Seminar: On writing of term papers. Sources of data.
3	11 Sep	• Multivariate regression II　　　Hamilton Ch 3 s65-84 Seminar: On writing of term papers. Variables and variation. Theory of measurement and levels of measurement. Coding and recoding. Choice of dependent variable.
4	18 Sep	• Low-Tech Causal Modeling　　　Hamilton 2008 • Factor analysis　　　　　　　　Hamilton Ch 8 s249-288 Seminar: Why logit regression?
5	25 Sep	• Missing data　　　　　　　　　Allison (2003) Seminar: Why logistic regression?
6	2 Oct	• Regression criticism I　　　　　Hamilton Ch 4 s109-123 Seminar: Examination question from spring 2004
7	9 Oct	• Regression criticism II　　　　　Hamilton Ch 4 s109-137 • Logistic regression I　　　　　　Hamilton Ch 7 s217-235 Seminar: Examination question from fall 2001
8	16 Oct	• Fitting Curves　　　　　　　　Hamilton Ch 5 p145-173 • Robust Regression　　　　　　　Hamilton Ch 6 p183-211 Seminar: Examination question from fall 2004
9	23 Oct	• Logit regression II　　　　　　Hamilton Ch 7 s217-242 Seminar: Examination question from spring 2004

10	30 Oct	• Logit regression III Hamilton Ch 7 s217-242 Seminar: Examination question from fall 2001
11	6 Nov	• No lecture
12	13 Nov	• Examination questions
13	20 Nov	• Overview. Repeating basics. Answering questions
	23 Nov	Deadline for essay at 12:00
	1 Dec	Written examination