Statistics 1, Fall term 2018

Prior knowledge
The course assumes prior knowledge corresponding to the content of Borg & Westerlund (2012). Statistik för beteendevetare (3 ed.). Stockholm: Liber.

Learning outcomes
After completing the course, you will have improved your ability to:
1. use basic probability theory to evaluate evidence,
2. understand and critically evaluate methods based on the general linear model,
3. plan and conduct statistical analyses of data, including data screening, descriptive analysis, data visualization, and effect size estimation.

Course content
The course will cover the following topics:
- Data screening and data visualization
- Probability, including the very basics of Bayesian inference
- Estimation and confidence intervals
- General (and generalized) linear model
- Practical data analysis using R

Activities
The course consists of lectures and computer exercises. One seminar is devoted to the student’s presentations of their individual assignments (see below).

Individual assignment
Task: (1) To write a Result section and a Conclusion section based on analyses of a selected data-set. Several data sets will be available. (2) Prepare a power-point presentation (max 5 slides) and be prepared to present it at the last seminar. The written text and the power-point presentation should be delivered by email to the course leader no later than 16.00 the day before the last seminar.

Examination
The course is graded on the seven-point ECTS-scale (A, B, C, D, E, Fx, F). The grade is based on the result of the written exam. The exam is scored from 0 to 40 points. Grade A requires at least 37 points, B 32-36 points, C 28-31 points, D 24-27 points and E 20-23 points (Fx 10-19 points, F < 10 points). Half scores are rounded upward, so a total score of, say, 31.5 would be rounded to 32 and be given grade B. The individual assignment is scored Fail or Pass. Pass is a requirement for passing the course.
Literature

<table>
<thead>
<tr>
<th>Reference</th>
<th>Abbvtn</th>
<th>No of pages</th>
</tr>
</thead>
</table>

Schedule (see Athena)