DALARNA UNIVERSITY

Course Syllabus

Statistics for Engineering 7.5 Credits*, First Cycle Level 1

Learning Outcomes
Upon completion of the course, the student shall be able to;

- write computer programs in the language R,
- use basic descriptive statistics,
- perform statistical inference
- use regression analysis on given data,
- calculate expected value from random variables,
- use some common probability distributions,
- practice statistical tools on a typical engineering problem.

Course Content
The course covers the programming language R and descriptive statistics such as graphical and numerical summarization of variables. Confidence interval and hypothesis testing are included as well as simple and multiple linear regression. Expetcted value and variance from random variables and some common probability distribution are also included.

Assessment
Written exam (7.5 credits).

Forms of Study
Lectures, tutorials and data labs.

Voluntary homework and mid term exams.

Grades
The Swedish grades U, 3, 4, 5.

Prerequisites
General entry requirements and Mathematics 3b or 3c or Mathematics C, Social Sciences 1b or 1a1+1a2, English 6

* 1 Credit = 1 ECTS

DALARNA UNIVERSITY

Subject:
Statistics

Group of Subjects:
Statistics

Disciplinary Domain:
Natural Science, 100%

Approved:
Approved 22 September 2016
Valid from 29 September 2016

* 1 Credit = 1 ECTS