Course Syllabus

Statistics and Probability 7.5 Credits*, First Cycle

Learning Outcomes

After completing the course, the student should be able to:
 • conduct and discuss a statistical survey with relevance based on the school's values ??and mission.
 • interpret and construct different types of diagrams and, in conjunction with calculating different position and spread measurements.
 • calculate probabilities in simple random situations with binomial, hypergeometric or Poisson distribution
 • use the exponential and normal distributions as well as the central limit value set
 • make approximations of binomial and hypergeometric distributions
 • solve simple simulation problems
 • interpret, apply and calculate confidence intervals for participations and waiting values, and perform associated tests based on different data materials
 • use computer programs for statistical applications

Course Content

The course deals with the role of statistics and probability calculations in mathematics, as well as how statistical surveys can be designed, carried out and based on the school's values ??and assignments.
 The course deals with descriptive statistics with graphs, statistical measures and relationships such as regression and correlation, probability theory with studies of independent events and conditional probabilities, random variables, discrete probability distributions and some approximations. Furthermore, continuous probability distributions are studied, especially
 the normal distribution and statistical inference where confidence intervals for units and waiting values ??are calculated.
 The principle of hypothesis testing is clarified and applications leading to, among other things, chi-two tests are studied. In the class
 used spreadsheets for applications and calculations on statistical materials.

Assessment

Examination takes place through written examination and two individual assignments as well as oral presentations.

* 1 Credit = 1 ECTS

Forms of Study
Forms of work are lectures and exercises conducted individually and in groups as well as compulsory seminars

Grades
The Swedish grades U–VG.

Score Reporting:

Assignments, 1 credits, U - G
Saline exam, 6.5 credits, U - VG

To obtain the grade well passed for the entire course, VG on the examination requires 6.5 credits and G on the assignment assignments 1 credits.

Prerequisites
Algebra 7,5 credits

Other Information
Students in an online course require an acceptable network connection and tools for communication with audio and video via the Internet. The student should have access to relevant software eg. Excel.

Subject:
Mathematics Education

Group of Subjects:
Educational Sciences/Theoretical Subjects

Disciplinary Domain:
Natural Science, 100%

Progression Indicator:
G1F

Approved:
Approved 23 February 2021
Valid from 23 February 2021

Revised:
Revised, 21 April 2023
Revision is valid from 21 April 2023

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