APPLIES TO ACADEMIC YEAR 2009/2010

MET 1190 Statistics

Programme
Bachelor of Science in Business (1. year)

Responsible for the course

Department
Department of Economics

Term
According to study plan

ECTS Credits
7,5

Language of instruction
Norwegian

Introduction
The use of abstract mathematical and statistical models to describe and analyze a complex reality has in many areas shown to be useful. I this course you are presented to useful and well established methods that are applicable in practice.

Learning outcome
After completing the learning process described in this course description, you will:

Knowledge:
based on a throughout understanding of concepts and notions in probability and statistics, understand that statistical techniques and methods are based on assumptions and requirements

Abilities:
- be able to handle and analyze quantitative uncertainty and probability
- be able to model using discrete and continuous stochastic variables, and be capable in handling, analyzing and presenting data related to these with and without using computerized tools
- be able to handle the sample of a population and be capable in methods for statistical inference
- be able to select correct model and test in different situations and be able to conclude from these
- be able to compute with probabilities
- be able to estimate a simple regression model

Attitudes:
- having developed a critical attitude towards results and the validity of statistical analysis

Prerequisites
Basic skills in mathematics and statistics equivalent to admission requirements for the program.

Compulsory reading
Books:
Newbold, Paul. 2009. Statistics for business and economics. 7th ed. Upper Saddle River, N.J. : Pearson Education International : Prentice Hall

Recommended reading

Course outline
1. Descriptive statistics
2. Stochastic experiments and stochastic variables
3. Computation with probabilities, elementary set theory
4. Discrete probability distributions
5. Continuous probability distributions
6. Inference for parameters in discrete probability distributions
7. Inference for parameters in continuous probability distributions
8. Estimation

9. Hypothesis testing
10. Simple linear regression
11. Inference in simple linear regression model
12. Selection of model and methods

Computer-based tools
SAS JMP og EXcel med PhStat anbefales brukt (PhStat følger med læreboken)

Learning process and workload
To each lecture there will be exercises and reading assignments. The student must gain knowledge from the material presented in the reading assignments and work through the exercises. Some of the exercises must be solved using SAS JMP and/or Excel with PhStat. The final exam will require that the student has solved the exercises during the semester. Feedback will be given by sample solutions and presentations.

Workload for the student:

Activity	**Use of hours**
Lectures	54
Work with exercises (and computer-base tools)	96
Reading assignments	40
Preparation for final exam	10
Anbefalt tidsbruk totalt	**200**

Use of hours
Kurset undervises over 54 timer.

Examination
A five hours individual exam, concludes the course.

Exam code(s)
MET 11901 - Written exam, count 100% to obtain final grade in MET 1190 Statistics, 7,5 credits.

Examination support materials
All aids + calculator TEXAS INSTRUMENTS BA II Plus™ are allowed.
Students are encouraged to bring solutions to assignments that has been given trough the semester.

Exam aids at written examiniations are explained under exam information in our web-based Student handbook. Please note use of calculator and dictionary.
http://www.bi.edu/studenthandbook/examaids

Re-sit examination
Re-sit exam are offered next time course is offered.

Additional information