



APPLIES TO ACADEMIC YEAR 2010/2011

## MET 3431 Statistics

### Programme

Bachelor in Arts and Management (1. year), Bachelor in International Marketing (1. year), Bachelor in Market Communication (1. year), Bachelor in Marketing (1. year), Bachelor in Media Management and Journalism (1. year), Bachelor in Public Relations (1. year), Bachelor in Retail Management (1. year), Bachelor in Tourism Management (1. year), Foundation Program in Marketeconomy

### Responsible for the course

### Department

Department of Economics

### Term

According to study plan

### ECTS Credits

7,5

### Language of instruction

Norwegian

### Introduction

This is a basic course in statistics. Main themes are descriptive statistics and statistical inference. In addition some emphasis is put on acquiring basic skills in mathematics.

### Learning outcome

#### Acquired knowledge

- To see the relevance and use of statistics in marketing and economics
- To think critically about the application of statistical methods
- To understand the relation between the population and the sample at hand, and how it is affected by randomness
- To be aware that statistical methods are based on assumptions that must be checked
- To understand the underlying ideas behind estimation and hypothesis testing

#### Acquired skills

- To be able to handle fractions, functions and graphs; and be able to read the mathematical notation that arises in statistical formulas
- To know how to use statistical software to produce graphics and numbers; to be able to interpret output from such software
- To be able to describe data with key statistics and graphical displays
- To be able to calculate simple probabilities and confidence intervals
- To know how to conduct tests of hypotheses for the mean and proportion in a population, or for the differences in mean in two populations
- To be able to do a regression analysis and interpret the result

#### Reflection

- The student should also be aware that statistical methods can be easily misused and misinterpreted. It is important that the judgment required for statistical analysis is fair and just.

### Prerequisites

None.

### Compulsory reading

#### Books:

Triola, Mario F. 2010. Essentials of statistics. 4th ed. Boston : Pearson/Addison-Wesley. Ny utgave ventet mars 2010

### Recommended reading

#### Books:

Ubøe, Jan. 2008. Statistikk for økonomifag. 3. utg. Oslo : Gyldendal akademisk

**Course outline**

- Functions and graphs
- Describing data with measures of centrality and variation, as well as with graphical displays
- Discrete and continuous random variables
- Basic probability
- Estimation
- Confidence intervals
- Hypothesis testing
- Regression
- Chi-square test

**Computer-based tools**

SAS JMP is used as a teaching tool.

**Learning process and workload**

The course consists of 48 hours of lectures, including 10 hours of demonstration of statistical software. The problems studied in class and given as homework assignments will serve as a basis for the final examination.

Work requirement:

In the course of the semester 8 mandatory multiple-choice assignments will be given. These are submitted on It's Learning. Each assignment is assessed as either pass or fail. The student needs at least 5 passes in order to take the final exam.

Outline of workload for a student:

Activity	Use of hours
Lectures	48
It's learning assignments	50
Working with SAS JMP (or some statistical software)	32
Textbook study	50
Exam preparation	20
<b>Total</b>	<b>200</b>

**E-learning**

The e-learning platform It's learning is used by the e-learning centre to administrate the mandatory exercises, and make students able to communicate with each other and the lecturer. Module sessions are carried out at the beginning of the semester and before exams. The e-learning students are also offered a study guide that is an educational guide to the syllabus.

Outline of workload for a student:

Activity	Use of hours
Lectures	8
It's learning assignments	50
Working with SAS JMP (or some statistical software)	36
Textbook study	86
Exam preparation	20
<b>Total</b>	<b>200</b>

**Use of hours****Coursework requirements**

The students must have passed five of the eight multiplechoice tests in order to take the exam.

**Examination**

A five hour individual written exam concludes the course.

**Examination code(s)**

MET 34311 Examination that accounts for 100 % of the grade in MET 3431 Statistics, 7,5 ECTS credits..

**Examination support materials**

All support materials and calculator TEXAS INSTRUMENTS BA II Plus™ are allowed.

Exam aids at written examinations 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**

A re-sit examination is offered every term.

Students that have not passed five of the mandatory eight multiple-choice assignments must retake the exercises in connection with the next scheduled course and must pass five of the eight submitted multiple-choice assignments. Students that have not passed the written exam can retake the exam in the next semester.

**Additional information**