

Course Outline

Course number	RBA139					
Course title	Statistics for Social Sciences					
Credit points	2 CP (3 ECTS)					
Total hours	30					
Lecture hours	30					
Seminar and other hours	0					
Course level	Bachelor					
Prerequisites	None					
Category	Mandatory	X	Restricted elective		Free elective	

COURSE TEACHERS

No.	Name	Academic degree	Academic position
1	Maarten Lemken	MSc	Visiting Lecturer

COURSE ABSTRACT

This course is designed to introduce students to the basic concepts and tools of statistics. Topics include collection, processing and presentation of data, statistical measures of central tendency and dispersion, normal distribution, binomial distribution, sampling distribution, confidence intervals and hypotheses testing, correlation, univariate and multivariate regression, forecasting, and the interpretation of the outcomes.

COURSE OBJECTIVES

At the completion of this course students are expected to be able to:

- Demonstrate an understanding of basic statistical concepts;
- Explain the meaning of statistical terms that commonly occur in reports and articles;
- Ask critical questions on statistical argumentations in the media and business world;
- Carry out statistical computations for a data set using MS-Excel or other statistical analysis software.

GRADING CRITERIA

Criteria	Weighting
Every week an assignment is handed in.	The weekly assignments need to be of sufficient quality in order to pass the course. In case the weekly assignments are of insufficient quality, it won't be possible to receive a passing grade for the final assignment.
Final assignment. The final assignment is individual.	100%

COURSE PLAN – MAIN SUBJECTS

No.	Main subjects	Planned hours
1	Descriptive statistics: tables, graphs and summary statistics	6
2	Discrete and continuous probability models	6
3	Sampling, estimation and hypothesis testing	8
4	The problem “to proof” cause-effect relations: correlation and regression models.	8
5	Case studies with Excel	-
6	Course review	2

COURSE PLAN – SESSIONS

Session	Session subjects and readings	Lecture/seminar
1	Introduction: Data and decisions	L/S
2	Descriptive statistics I: Displaying and describing categorical data	L/S
3	Descriptive statistics II: Displaying and describing quantitative data	L/S
4	Correlation and linear regression I	L/S
5	Correlation and linear regression II	L/S
6	Probability theory I: Randomness and probability	L/S
7	Probability theory II: Random variables and probability models	L/S
8	Probability theory III: The normal and other continuous distributions	L/S
9	Surveys and sampling	L/S
10	Confidence intervals and hypothesis testing I	L/S
11	Confidence intervals and hypothesis testing II	L/S
12	Confidence intervals and hypothesis testing III	L/S
13	Multiple regression models I	L/S
14	Multiple regression models II	L/S
15	Course review	L/S

COURSE LITERATURE

No.	Author, title, publisher
1	Sharpe, de Veaux, Velleman: Business Statistics. Pearson 2016
2	Own lecture notes and spreadsheets