

Code

Course item:

1. INFORMATION ABOUT THE COURSE**A. Basic information**

Name of course	Statistics
Study level	
Unit running the study programme	
Study programme	
Speciality	
Name of teacher (s) and his academic degree	Małgorzata Michalcewicz-Kaniowska, Ph.D. Eng. Małgorzata Zajdel, Ph.D. Eng.
Introductory courses	No
Prerequisites	No prerequisites

B. Semester/week schedule of classes

Semester	Lectures	Classes	Laboratories	Project	Seminars	Field exercises	ECTS
Fall, Spring	15			15			6

2. EFFECTS OF EDUCATION (acc. to National Qualifications Framework)

Knowledge	The goal of this course is to develop basic tools for data analysis, probability and statistical methods. Key topics covered in the course include exploratory data analysis, regression, probability, estimation, and hypothesis testing.
Skills	student is able to use statistical methods for data analysis
Competences	student identifies research issues important in the development of business

3. TEACHING METHODS

Group research project

4. METHODS OF EXAMINATION

Presentation

5. SCOPE

Lectures	Data sources and data collection methods. Data Collection and Studies, Compare and contrast observational and experimental studies, Analyze the design of an experiment, looking for sources of data, Identify different types of sampling, Identify types of data and choose an appropriate way to display them Estimate sensible summary statistics from a data set Describe how/why one variable can be informative about another
Laboratories	Methods of data description and analysis using Excel: descriptive statistics, graphical presentation, estimation, hypothesis testing, sample size, power; emphasis on learning statistical methods and concepts through hands-on experience with real data.

6. LITERATURE

Basic literature	<ul style="list-style-type: none"> Honert, Rob van den. Intermediate Statistical Methods for Business and Economics. Juta Academic. 1999.
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	<ul style="list-style-type: none"> • Marques de Sá, Joaquim P. Applied Statistics Using SPSS, STATISTICA, MATLAB and R. Springer: 2007. • Mutoh, Mr.Shinsuke. Data Analysis Using STATISTICA. Asakura Shoten: 2000.
Supplementary literature	<ul style="list-style-type: none"> • Bi-E, Cheng, and Shun-Yu, Chen. STATISTICA Manual I - Basic Statistics. Taipei, R.O.C.: HwaTai Publishing, 1999.