

Faculty of Computer Science and Management

**SUBJECT CARD****Name in Polish** Statystyka biznesowa**Name in English** Business Statistics**Main field of study (if applicable):** Management**Specialization (if applicable):** Business Information systems**Level and form of studies:** 2nd level, full-time**Kind of subject:** obligatory**Subject code** MAZ1202**Group of courses** NO

	Lecture	Classes	Laboratory	Project	Seminar
Number of hours of organized classes in University (ZZU)	<b>15</b>		<b>15</b>		
Number of hours of total student workload (CNPS)	<b>60</b>		<b>60</b>		
Form of crediting	<b>crediting with grade</b>		<b>crediting with grade</b>		
For group of courses mark (X) final course					
Number of ECTS points	<b>2</b>		<b>2</b>		
including number of ECTS points for practical (P) classes			<b>2</b>		
including number of ECTS points for direct teacher-student contact (BK) classes	<b>0,5</b>		<b>0,5</b>		

\*delete as applicable

**PREREQUISITES RELATING TO KNOWLEDGE, SKILLS AND OTHER COMPETENCES**

1. Mathematics

**SUBJECT OBJECTIVES**

C1 Presenting to the listeners elements of statistics and probability theory.

C2 Exercises are offered for practice in using statistical computer packages

**SUBJECT EDUCATIONAL EFFECTS**

relating to knowledge:

PEK\_W01 He knows the methods of data analysis and methods of representation

PEK\_W02 He knows and understands the theoretical foundations and advanced formal methods and tools for statistics.

relating to skills:

PEK\_U01 He can choose the sources of information and use them to solve complex management problems and issues in the organization.

relating to social competences:

PEK\_K01 – He recognizes the significance and limitations associated with the use of statistical data

**PROGRAMME CONTENT**

<b>Form of classes - lecture</b>		<b>Number of hours</b>
Lec 1	One random variables and their distributional functions	2
Lec 2	Multi-dimensional random variables and their distributional functions	2
Lec 3	Independence of multi random variables and their parameters. Central- limit theorem	2
Lec 4	Estimating the mean and variance for population. The structure of population and its characteristics	2
Lec 5	Estimating the mean and variance for grouped data. The distribution of the most important statistics	2
Lec 6	Confidence intervals	2
Lec 7	Parametric and non-parametric tests	3
	Total hours	15
<b>Form of classes - class</b>		<b>Number of hours</b>
Cl 1		
Cl 2		
Cl 3		
	Total hours	
<b>Form of classes - laboratory</b>		<b>Number of hours</b>
Lab 1	The average values, variability and distribution of elements in a sample	2
Lab 2	The average values, variability and distribution of elements in a sample – cont.	2
Lab 3	Calculating probabilities for given random variables	2
Lab 4	Calculating probabilities for given random variables – cont.	2
Lab 5	The central limit theorem	2
Lab 6	Confidence intervals	2
Lab 7	Parametric hypotheses	3
	Total hours	15
<b>Form of classes - project</b>		<b>Number of hours</b>
Proj 1		
Proj 2		
Proj 3		
	Total hours	
<b>Form of classes - seminar</b>		<b>Number of hours</b>
Sem 1		
Sem 2		
Sem 3		
	Total hours	
<b>TEACHING TOOLS USED</b>		
N1. Informative lecture		

N2. Computer packages  
N3. Case study

**EVALUATION OF SUBJECT EDUCATIONAL EFFECTS ACHIEVEMENT**

<b>Evaluation</b> (F – forming (during semester), P – concluding (at semester end))	Educational effect number	Way of evaluating educational effect achievement
P	PEK_W01, PEK_W02	test
P=1		

**PRIMARY AND SECONDARY LITERATURE**

**PRIMARY LITERATURE:**

- [1] Aczel A. D., Sounderpandian J.: Complete Business Statistics, MacGraw-Hill, Irwin, 2009
- [2] Mercik J.: BUSINESS STATISTICS. Six Lectures on Statistics, Wroclaw University of Technology Press, Wroclaw, 2011
- [3]
- [4]

**SECONDARY LITERATURE:**

- [1] Any text-book with “statistics” in its title
- [2]
- [3]

**SUBJECT SUPERVISOR (NAME AND SURNAME, E-MAIL ADDRESS)**

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**MATRIX OF CORRELATION BETWEEN EDUCATIONAL EFFECTS FOR SUBJECT  
Business Statistics  
AND EDUCATIONAL EFFECTS FOR MAIN FIELD OF STUDY Management  
AND SPECIALIZATION Business Information Systems**

Subject educational effect	Correlation between subject educational effect and educational effects defined for main field of study and specialization (if applicable)**	Subject objectives***	Programme content***	Teaching tool number***
PEK_W01 (knowledge)	K2_ZARZ_W07, K2_ZARZ_W13	C1, C2	Lec1-Lec7 Lab1-Lab7	N1, N2, N3
PEK_W02	K2_ZARZ_W07, K2_ZARZ_W13	C1, C2	Lec1-Lec7 Lab1-Lab7	N1, N2, N3
PEK_U01 (skills)	K2_ZARZ_U03, K2_ZARZ_U08, K2_ZARZ_U11 K2_ZARZ_U12, K2_ZARZ_U14	C1, C2	Lec1-Lec7 Lab1-Lab7	N1, N2, N3
PEK_K01 (competences)	K2_ZARZ_K09	C1, C2	Lec1-Lec7 Lab1-Lab7	N1, N2, N3

\*\* - enter symbols for main-field-of-study/specialization educational effects

\*\*\* - from table above