COURSE OFFERED

Name of the course	Polish	Analiza statystyczna danych
	English	**Statistical data analysis**

1. LOCATION OF THE COURSE OF STUDY WITHIN THE EDUCATION SYSTEM

1.1. Section [1]	Exact and Natural Sciences
1.2. Discipline[2]	Physical Sciences
1.3. Type of education	Stationary
1.4. Level of education	PhD School/1 year
1.5. Person preparing the course description	Francesco Giacosa
1.6. Contact	fgiacosa@ujk.edu.pl

2. GENERAL CHARACTERISTICS OF THE COURSE OF STUDY

2.1. Type of course [3]	Domain specific subjects in the section
2.2. Language of the course	English

3. DETAILED CHARACTERISTICS OF THE COURSE OF STUDY

3.1. Type of classes[4]		Lectures and Excercises
3.2. The number of hours[5]		20h (10h lecture + 10h excercises)
3.3. Location of classes		UJK, WNSiP
3.4. Type of assessment		Credit (Lectures), Credit with a grade (Excercises)
3.5. Didactic methods		Oral lectures, problem solving
3.6. Literature	**basic**	Sidney Siegel - Nonparametric statistics for the behavioral sciences - McGraw-Hill (1956) John R. Taylor, An Introduction to Error Analysis: The Study of Uncertainties in Physical Measurements, ISBN-13: 978-0935702750 Arak M. Mathai and Hans J. Haubold Probability and Statistics De Gruyter Textbook
	supplementary	Probability and statistics, in mathematical tools of the Particle Data Group, http://pdg.lbl.gov/2015 Hans Bandemer, Mathematics of Uncertainty, ISBN 978-3-540-31228-4

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[1] Section of Humanities:, Social Sciences, Section of Exact and Natural Sciences, Section of Medical and Health Sciences, Section of Arts.

[2] History,Linguistics, Literary Studies, Medical Sciences, Health Sciences, Political and Administrative Sciences, Legal Sciences, Security Sciences, Pedagogy, Communication and Media Studies, Management and Quality Studies, Biological Sciences, Chemical Sciences, Physical Sciences, Earth and related Environmental Sciences, Visual Arts and Artwork Conservation, Musical Arts.

[3] General courses, domain specific subjects in the section, disciplinary subjects in the sections, specialized subjects in the discipline.

[4] Excercises, lecture, seminar.

[5] Consistent with the education program at the Doctoral School

Jan Kochanowski University in Kielce.

4. OBJECTIVES, SYLLABUS CONTENT AND INTENDEND LEARNING OUTCOMES

4.1. Course objectives (including the form of classes)
Understanding the fundamentals aspects of statistical methods: fits, calculation of the parameter errors and determination of the quality of fits.
Understanding the mathematical tools related to statistics.
Developing the skills to solve exercises.

4.2.Syllabus content

1. Recall of error propagation and error analysis.

2. Distributions: Gaussian, binomial, Poisson.

3. Statistical and systematic errors.

4. Errors and significant digits.

5. Fit: determination of the parameters, statistical tests.

6. t-student, Anova.

5. SUBJECT LEARNING OUTCOMES

Learning outcomes	A doctoral student who has passed the subject:	Reference to the learning outcomes of Doctoral School (according to the training program at the Doctoral School)
in the area of KNOWLEDGE:		
W01	The doctoral student has expanded knowledge of research methodologies, including statistical analysis of results.	SD_W03
in the area of SKILLS:		
U02	The doctoral student can create a research plan, including advanced research procedures and an original research.	SD_UO2
in the area of SOCIAL COMPETENCE:		
K03	The doctoral student can independently conduct scientific research, adhering to the principles of public ownership of research results outcomes and ensuring intellectualproperty protection.	SD_K05

6. METHODS OF ASSESSMENT OF THE INTENDED LEARNING OUTCOMES

SUBJECT LEARNING OUTCOMES	METHOD OF ASSESSMENT (+/-)																				
	Oral/written exam			Kolokwium			Project			activity in class			Own work			Group work			Others		
	The type of classes			*The type of classes*			*The type of classes*			*The type of classes*			*The type of classes*			*The type of classes*			*The type of classes*		
	L	E	S	L	E	S	L	E	S	L	E	S	L	E	S	L	E	S	L	E	S
W01	x	x																			

U01	**x**	**x**																		
K01	**x**	**x**																		

7. CRITERIA OF ASSESSMENT OF THE INTENDED LEARNING OUTCOMES

Form of classes	Grade	Criterion of assessment
Lecture (L) [6]	**3,0**	51-60% correct exam exercises
	3,5	61-70% correct exam exercises
	4,0	71-80% correct exam exercises
	4,5	81-90% correct exam exercises
	5,0	91-100% correct exam exercises
Excercises (E)	**3,0**	51-60% correct exam exercises
	3,5	61-70% correct exam exercises
	4,0	71-80% correct exam exercises
	4,5	81-90% correct exam exercises
	5,0	91-100% correct exam exercises

Accepted for execution

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[6] Niepotrzebne usunąć.