

Course code:

Plan position:

1. INFORMATION ABOUT THE COURSE

A. Basic information

Name of course	Statistics
Field of studies	
Level of studies	
Profile of studies	
Form of studies	
Specjalty	
Unit responsible for the field of studies	Faculty of Animal Breeding and Biology, Faculty of Agriculture and Biotechnology, Faculty of Management
Name and academic degree of teacher(s)	Prof. Dariusz Piwczyński, Assoc. Prof. Lech Gałęzewski, Małgorzata Michalcewicz-Kaniowska, PhD
Introductory courses	
Introductory requirements	

B. Semester/week schedule of classes

Semester	Lectures (W)	Auditorium classes (Ć)	Laboratory classes (L)	Project classes (P)	Seminar (S)	Field classes (T)	Number of ECTS points
Winter/summer	15		15				6

2. LEARNING OUTCOME

No.	Learning outcomes description	The reference to the learning outcomes of specific field of study	The reference to the learning outcomes for the area
KNOWLEDGE			
W1	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			
U1	The student is able to use statistical methods for data analysis.		
SOCIAL COMPETENCES			
K1	The student identifies research issues, will be able to process data on their own, and will be aware of the decision-making process based on statistical test results.		

3. TEACHING METHODS

Multimedia lecture, project

4. METHODS OF EXAMINATION

Colloquium, project

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. The use of statistical programs.

6. METHODS OF VERIFICATION OF LEARNING OUTCOMES

LEARNING OUTCOME	Form of assessment					
	Oral examination	Written exam	Colloquium	Project	Presentation
W1			X			
U1				X		
K1				X		

7. LITERATURE

Basic literature	Michna Z. Statistics. Wydawnictwo Uniwersytetu Ekonomicznego we Wrocławiu. 2014 Marques de Sá, Joaquim P. Applied Statistics Using SPSS, STATISTICA, MATLAB and R. Springer: 2007
Supplementary literature	

8. TOTAL STUDENT WORKLOAD REQUIRED TO ACHIEVE EXPECTED LEARNING OUTCOMES EXPRESSED IN TIME AND ECTS CREDITS

Student's activity		Student workload– number of hours
Classes conducted under a direct supervision of an academic teacher or other persons responsible for classes	Participation in classes indicated in point 1B	30
	Supervision hours	5
Student's own work	Preparation for classes	30
	Reading assignments	40
	Other (preparation for exams, tests, carrying out a project etc)	45
Total student workload		150
Number of ECTS points		6