UNIVERSITY OF WARMIA AND MAZURY IN OLSZTYN

Faculty of Veterinary Medicine

Course title: BIOSTATISTICS AND METHODS OF DOCUMANTATION

ECTS credit allocation (and other scores): 2

Semester: spring

Level of study: ISCED-7- long-cycle programmes (EQF-7)

Branch of science: Agricultural sciences

Language: English

Number of hours per semester: 30

Course coordinator/ Department and e-mail:

dr hab. Tadeusz Bakuła, Department of Veterinary Prevention and Feed Hygiene, bakta@uwm.edu.pl . dr Bernard Kasiedczuk Faculty of Mathematics and Computer Science, Chair of Applied Mathematics. beka@uwm.edu.pl

Type of classes: classes and lectures

Substantive content

CLASSES: Statistical tools in biostatistics - Excel and STATISTICA applications. Biostatistics – point and interval estimation of parameters, estimation of parameters based on intervals for means and variances. Correlation and regression. Biostatistics – analysis of variance. Examples of biostatistical analyses.

Veterinary documentation: paper and electronic versions of veterinary documents. Overview of electronic databases in the fields of: veterinary medicine; animal breeding. Overview of veterinary clinic software applications.

LECTURES: Students will learn about statistical applications in biological research involving experiments on animals – distribution of theoretical and empirical data. Introduction to concepts relating to data distribution parameters (arithmetic mean, weighed average, variance, standard deviation, median, modal value), interpretation of distribution parameters. Point and interval estimation of parameters. Verification of statistical hypotheses. Correlation and regression. Analysis of variance. Examples of biostatistical analyses. On completion of the study programme the graduate will gain:

Knowledge: Graduates will have knowledge of statistical analyses of data obtained in animal experiments

Skills: - Graduates will be able to use statistical tools for work and self-education

Social Competencies: Graduates will be able to interpret the results of animal experiments and data collected during veterinary practice with the use of statistical tools.

Basic literature:

1. A Biostatistics Toolbox for Data Analysis. Steve Selvin, Cambridge University Press Publisher 2015, wyd.1
2. Medical Statistics at a Glance, Aviva Petrie, Caroline Sabin, John Wiley and Sons Publisher, 2019, wyd.1

Supplementary literature:

Biostatistics | Oxford Academic - Oxford Journals; https://academic.oup.com/biostatistics

The allocated number of ECTS points consists of: 2

Contact hours with an academic teacher: 30

Student's independent work: 40