

Course description	
Course	Basics of Biostatistics
Department	Biomathematics and Informatics
Language	English
Nature	Mandatory
Year/semester	1st year, winter-term
Credits (ECTS)	4
Lectures (hour/semester)	16
Plenary lectures (hour/semester)	
Practicals (hour/semester)	16
Responsible teacher	Dr. Reiczigel Jenő
Teacher(s)	Dr. Reiczigel Jenő, Bajcsayné Fábián Ibolya
Prerequisites	

Learning outcome (include skills and competencies, if any)

Understanding the principles of the most widely used statistical analysis methods, and ability to carry out these analyses using the statistical software R

Outcome assessment

Moodle test with essay, single- and multiple-choice questions, and data analysis problems to solve using R

Weekly schedule of lectures and practicals

WEEK	Lecture topics
Week 1	Descriptive statistics, Principles of inductive statistics, Estimation and testing, Probability theory
Week 2	Probability distributions, Statistical tests, Alpha and beta error, Power of test, Tests for means
Week 3	Tests for variances, probabilities, independence, Goodness-of-fit tests, Parametric and nonparametric procedures

Week 4	Correlation and regression
WEEK	
Practical topics	
Week 1	same (practical problem solving by R)
Week 2	
Week 3	
Week 4	
Recommended literature	
Petrie A, Watson P. Statistics for Veterinary and Animal Science. 3rd edition. Wiley-Blackwell, 2013.	
Further stuff (lecture slides, exercises, data etc) at biomat.univet.hu/mood	
Note(s)	