

BASIC STATISTICS IN VETERINARY MEDICINE

UNIVERSITY OF ZAGREB
FACULTY OF VETERINARY MEDICINE
Heinzelova 55
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Division: Animal Production and Biotechnology
Organizational unit: Animal Breeding and Livestock Production
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Register No of the organisational unit: 61-09-2025-102
Zagreb, 21/7/2025

COURSE SYLLABUS

Course name: Basic Statistics in Veterinary Medicine
Academic year 2025/2026

Course leader: Assoc. Prof. Maja Maurić Maljković, PhD

Deputy course leader: (title, name and surname): Assoc. Prof. Sven Menčik, PhD

Teachers: Full Prof. (permanent) Anamaria Ekert Kabalin, PhD, Assoc. Prof. Maja Maurić Maljković, PhD, Assoc. Prof. Sven Menčik, PhD, postdoctoral assistant Aneta Piplica, PhD, postdoctoral assistant Ivan Vlahek, PhD, Niko Popović DVM

First day of classes: 2/10/2025

Last day of classes: 25/11/2025

	
206193	REPUBLIKA HRVATSKA
Veterinarski fakultet u Zagrebu	
Primljeno:	24.07.2025
Klasifikacijska oznaka	Org. jed.
602-04/25-22/34	251-61-41;251-61-32;
Urudžbeni broj	Prilozi Vrijednost
251-61-09/146-25-10	0 -

Activities - Basic Statistics in Veterinary Medicine (1/3)

Start Dat	Start	End	Subject	Subject	Group	Note	Length	Instructor	Room
02/10/2025	13:30	15:00	Basic Statistics in Veterinary Medicine	p01 Introduction, variables	1E-1, 1E-2		1:30	Maurić Maljković M.	R_stočarstvo velika
03/10/2025	12:00	13:30	Basic Statistics in Veterinary Medicine	p02 Mean values, measures of dispersion	1E-1, 1E-2		1:30	Maurić Maljković M.	R_stočarstvo velika
06/10/2025	8:15	9:45	Basic Statistics in Veterinary Medicine	p03 Probability, distributions, sample/population	1E-1, 1E-2		1:30	Menčik S.	P_kemija
06/10/2025	10:00	11:30	Basic Statistics in Veterinary Medicine	v01 Data entry	1E-1, 1E-2		1:30	Nastavnici na predmetu	R_stočarstvo mala, R_stočarstvo velika
14/10/2025	8:05	9:35	Basic Statistics in Veterinary Medicine	v02 Means and dispersion	1E-1, 1E-2		1:30	Nastavnici na predmetu	R_stočarstvo mala, R_stočarstvo velika
15/10/2025	8:15	9:45	Basic Statistics in Veterinary Medicine	p04 Probability, distributions, hypothesis testing	1E-1, 1E-2	e-learning	1:30	Menčik S.	R_stočarstvo velika
16/10/2025	8:15	9:45	Basic Statistics in Veterinary Medicine	v03 Kolmogorov-Smirnov test	1E-1, 1E-2		1:30	Nastavnici na predmetu	R_stočarstvo mala, R_stočarstvo velika

Activities - Basic Statistics in Veterinary Medicine (2/3)									
Start Dat	Start	End	Subject	Subject	Group	Note	Length	Instructor	Room
20/10/2025	13:30	15:00	Basic Statistics in Veterinary Medicine	p05 Hypothesis tests, correlation, regression I	1E-1, 1E-2		1:30	Ekert Kabalin A.	R_stočarstvo velika
29/10/2025	13:30	15:00	Basic Statistics in Veterinary Medicine	v04 Descriptive statistics - total	1E-1, 1E-2		1:30	Nastavnici na predmetu	R_stočarstvo mala, R_stočarstvo velika
30/10/2025	14:00	15:30	Basic Statistics in Veterinary Medicine	p06 Hypothesis tests, correlation, regression II	1E-1, 1E-2	e-learning	1:30	Ekert Kabalin A.	P_fizika
05/11/2025	8:15	9:45	Basic Statistics in Veterinary Medicine	v05 Parametric tests	1E-1, 1E-2		1:30	Nastavnici na predmetu	R_stočarstvo mala, R_stočarstvo velika
05/11/2025	13:00	14:30	Basic Statistics in Veterinary Medicine	p07 Hypothesis testing in veterinary research	1E-1, 1E-2		1:30	Maurić Matjković M.	P_fizika
13/11/2025	12:00	13:30	Basic Statistics in Veterinary Medicine	v06 Non-parametric tests	1E-1, 1E-2		1:30	Nastavnici na predmetu	R_stočarstvo mala, R_stočarstvo velika
19/11/2025	11:45	13:15	Basic Statistics in Veterinary Medicine	v07 Correlation, regression, models	1E-1, 1E-2		1:30	Nastavnici na predmetu	R_stočarstvo mala, R_stočarstvo velika

Activities - Basic Statistics in Veterinary Medicine (3/3)									
Start Dat	Start	End	Subject	Subject	Group	Note	Length	Instructor	Room
25/11/2025	13:00	14:30	Basic Statistics in Veterinary Medicine	v08 R, excel	1E-1, 1E-2		1:30	Nastavnici na predmetu	R_stočarstvo mala, R_stočarstvo velika
01/12/2025	8:00	14:00	1 ENG	Basic Statistics in Veterinary Medicine		Nadoknada nastave	6:00		R_stočarstvo mala
03/12/2025	8:00	14:00	1 ENG	Basic Statistics in Veterinary Medicine		Nadoknada nastave	6:00		R_stočarstvo mala
28/01/2026	9:15	15:15	1 ENG	Basic Statistics in Veterinary Medicine		Basic statistics - exam	6:00		R_stočarstvo velika
05/02/2026	8:00	10:00	1 ENG	Basic Statistics in Veterinary Medicine		Exam	2:00		R_stočarstvo mala
Total: 19							42:30		

STUDENT OBLIGATIONS

Lecture attendance	Attending lectures and e-learning: a total of 6 points (the lowest number of points that a student should gain from this element is 3 points)
Practicals attendance	Attendance exercises: a total of 12 points (the lowest number of points that a student should gain from this element is 8,4 points)
Active participation in seminars and practicals	Active participation in exercises (solving and interpreting tasks): a total of 10 points (the minimum number of credits a student should gain from this element is 5 points). During the term, students have to fulfil the given assignments in seven (1st -7th) programme exercises regarding the input, analysis and saving data. Each successful exercise or task earns them 0,5 points. During the periods of the second (2nd), third (3rd) and fifth (5th) to seventh (7th) exercise, the students will have to do a self-check exam based on five questions in the Merlin System, according to the given exercise topic. Each successful self-check exercise with more than 50% of correct answers earns them 0,5 points. During oral examination revision periods, as well as after every finished exercise, students are allowed to interpret the given results and can get another extra point there. For the successful task completion and independent data analysis using Microsoft Excel students can earn another point. During the term students need to achieve a minimum of 5 points (different combinations in solving programme exercises, self-checks, oral results interpretations / oral exams). A maximum number of points here is 10.
Final exam	Written: a total of 40 points (the lowest number of points that a student should gain from this element is 24 points)
Examination requirements	Student requirements are defined in the Regulations on the Univeristy Integrated Undergraduate and Graduate Study of Veterinary Medicine (2024). Given the above, the student must acquire a minimum number of points from all assessment elements in order to take the final exam: a student can justifiably be absent from up to 50% of the lectures; 30% of the seminars and 30% of the exercises.

GRADING AND EVALUATING STUDENT WORK

Continuous knowledge-checking (mid-terms)	During the course, two colloquia will be organised. The first colloquium carries 12 points and the second 20 points. The student should gain at least 7.5 points from the first colloquium and 12.5 from the second. A total of 32 points is possible in this category. The minimum number of credits that a student should gain from this element is 20 points. Regular colloquia dates: 1st colloquia – 29/10/2025 2nd colloquia – 24/11/2025, 25/11/2025 Compensations: 01/12/2025 and 03/12/2025 15/01/2026 and 16/01/2026 26/01/2026
Final exams (dates)	18/12/2025 28/1/2026 5/2/2026
Form of final exam	written

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LITERATURE

Obligatory literature	PETRIE, A., P. WATSON (2013): Statistics for Veterinary and Animal Science. 3rd ed. Wiley Blackwell, Hoboken, New Jersey, USA
Optional literature	ENNOS, R (2012): Statistical and Data Handling Skills in Biology. 3 rd edition. Pearson Education, London, UK. Manuals of statistical software (Statistica, Excel, R). KUMAR SAHU, P. (2016): Applied Statistics for Agriculture, Veterinary Fishery, Dairy and Allied Fields. 1st edition, Springer, India. Prepared written materials of lectures and exercises.

OBJECTIVES AND LEARNING OUTCOMES

Course objectives	Adoption of facts about the significance of statistics for veterinary profession, getting theoretical and practical skills necessary for optimal planning and performing statistical observation, as well as data analysis and concluding about principles of events in veterinary medicine. Students will learn about different software system with the aim of achieving new skills related to different program environments during the statistical analysis.
Learning outcomes	Acquiring knowledge about the collection, processing and presentation of statistical data sets and their analysis and interpretation. Hypothesis, their evaluation and testing in veterinary medicine. Criteria for the selection of individual tests. Interdependence of characteristics and the possibility of their application in veterinary medicine After successful completion of the course the student will be able to: - identify the types of variables, - assess the results of basic statistical data processing and analysis - determine the normality of variables for the purpose of further analyses - select the test to verify the hypothesis in differently designed veterinary research - determine the correlation between two or more variables - solve statistical analysis in different programming environments

GRADING SCHEME

<i>Points</i>	<i>Grade</i>
Up to 59	1 (F)
60-76	2 (D,E)
77-84	3 (C)
85-92	4 (B)
93-100	5 (A)

Course leader



Head of organizational unit:



Note: The course leader is required to submit a Course Syllabus to all teachers and associates pertaining to the Course