UNIVERSITY OF ZAGREB
FACULTY OF VETERINARY MEDICINE
Heinzelova 55
Tel. 01/2390272
Division: Division for Animal Production and Biotechnology
Organizational unit: Department of Animal Nutrition and Dietetics
E-mail of the course leader: hvalpotic@vef.hr
Register No of the organisational unit: 61-07-25-102
Zagreb, 03.09.2025.

COURSE SYLLABUS

Course name: Basic Animal Nutrition
Academic year 2025/2026

Course leader: Full professor Hrvoje Valpotić

Deputy course leader: Full professor Željko Mikulec

Teachers: Full professor Željko Mikulec, Full professor Hrvoje Valpotić, assistant professor Ana Marija Kovač DVM

First day of classes: 31.10.2025.
Last day of classes: 15.01.2026.

Activities - Basic animal nutrition (1/4)

Start Dat	Start	End	Subject	Subject	Group	Note	Length	Instructor	Room
31/10/2025	11:30	13:00	Basic animal nutrition	p01 Development of nutrition, protein	3E-1, 3E-2, 3E-3		1:30	Valpotić H.	P_kemija
03/11/2025	12:00	13:30	Basic animal nutrition	p02 Carbohydrates, fats and energy	3E-1, 3E-2, 3E-3		1:30	Valpotić H.	P_patologija
07/11/2025	10:00	11:30	Basic animal nutrition	p03 Minerals, vitamins and water	3E-1, 3E-2, 3E-3		1:30	Brozić D.	P_patologija
12/11/2025	11:15	12:00	Basic animal nutrition	p04 Harmful substances in animal feed	3E-1, 3E-2, 3E-3		0:45	Brozić D.	P_kemija
19/11/2025	13:45	15:15	Basic animal nutrition	p05 Mycotoxins in feed	3E-1, 3E-2, 3E-3		1:30	Valpotić H.	P_kemija
20/11/2025	13:30	15:00	Basic animal nutrition	p06 Nutritional value of feeds	3E-1, 3E-2, 3E-3		1:30	Mikulec Ž.	P_patologija
21/11/2025	12:30	14:00	Basic animal nutrition	v01 Analytical methods	3E-1, 3E-2		1:30	Nastavnici na predmetu	P_kemija
24/11/2025	10:15	11:45	Basic animal nutrition	v01 Analytical methods	3E-3		1:30	Nastavnici na predmetu	P_kemija
02/12/2025	12:00	14:15	Basic animal nutrition	v02 Water, carbohydrates, fats, protein and amino acids	3E-3		2:15	Nastavnici na predmetu	P_kemija

Activities - Basic animal nutrition (2/4)

Start Dat	Start	End	Subject	Subject	Group	Note	Length	Instructor	Room
03/12/2025	11:30	13:45	Basic animal nutrition	v02 Water, carbohydrates, fats, protein and amino acids	3E-1, 3E-2		2:15	Nastavnici na predmetu	P_patologija
05/12/2025	10:00	11:30	Basic animal nutrition	p07 Feed additives	3E-1, 3E-2, 3E-3		1:30	Mikulec Ž.	P_amfiteatar
05/12/2025	13:45	15:15	Basic animal nutrition	v03 Nutritional value of feeds	3E-3		1:30	Nastavnici na predmetu	P_patologija
08/12/2025	13:30	15:00	Basic animal nutrition	v03 Nutritional value of feeds	3E-1, 3E-2		1:30	Nastavnici na predmetu	P_kemija
11/12/2025	13:30	15:00	Basic animal nutrition	v04 Microscopic and hygienic analysis of feed	3E-3		1:30	Nastavnici na predmetu	P_patologija
12/12/2025	10:00	11:30	Basic animal nutrition	v04 Microscopic and hygienic analysis of feed	3E-1, 3E-2		1:30	Nastavnici na predmetu	P_patologija
15/12/2025	11:45	13:15	Basic animal nutrition	v05 Nutritional value of feeds	3E-1, 3E-2		1:30	Nastavnici na predmetu	P_kemija
16/12/2025	8:15	9:45	Basic animal nutrition	p08 Feed mixtures and pet food	3E-1, 3E-2, 3E-3		1:30	Brozić D.	P_kemija
16/12/2025	11:45	13:15	Basic animal nutrition	v05 Nutritional value of feeds	3E-3		1:30	Nastavnici na predmetu	P_patologija
18/12/2025	12:45	14:15	Basic animal nutrition	v06 Feed additives	3E-3		1:30	Nastavnici na predmetu	R_stočarstvo velika

Activities - Basic animal nutrition (3/4)

Start Dat	Start	End	Subject	Subject	Group	Note	Length	Instructor	Room
19/12/2025	14:00	15:30	Basic animal nutrition	v06 Feed additives	3E-1, 3E-2		1:30	Nastavnici na predmetu	R_stočarstvo velika
07/01/2026	10:00	12:15	Basic animal nutrition	v07 Labooratory analysis	3E-3		2:15	Nastavnici na predmetu	L_hranidba
07/01/2026	12:30	14:45	Basic animal nutrition	v07 Labooratory analysis	3E-1, 3E-2		2:15	Nastavnici na predmetu	L_hranidba
08/01/2026	10:00	11:30	Basic animal nutrition	v09 Manual ration formulation	3E-3		1:30	Nastavnici na predmetu	P_patologija
08/01/2026	11:45	13:15	Basic animal nutrition	v09 Manual ration formulation	3E-1, 3E-2		1:30	Nastavnici na predmetu	P_patologija
09/01/2026	9:45	11:15	Basic animal nutrition	v08 Introduction to ration formulation	3E-1, 3E-2		1:30	Nastavnici na predmetu	P_patologija
09/01/2026	13:15	14:45	Basic animal nutrition	v08 Introduction to ration formulation	3E-3		1:30	Nastavnici na predmetu	P_patologija
12/01/2026	8:15	9:45	Basic animal nutrition	v10 Computer ration formulation	3E-1, 3E-2		1:30	Nastavnici na predmetu	R_stočarstvo velika
12/01/2026	12:00	14:00	3 ENG	Basic animal nutrition		Kolokvij	2:00	Valpotić H.	P_kemija
15/01/2026	11:15	12:45	Basic animal nutrition	v10 Computer ration formulation	3E-3		1:30	Nastavnici na predmetu	R_patofiziologija
20/01/2026	11:00	12:30	3 ENG	Basic animal nutrition			1:30	Valpotić H.	P_kemija
23/01/2026	9:00	15:00	Basic animal nutrition	t01 Production of animal feed	3E-1, 3E-2, 3E-3		6:00	Nastavnici na predmetu	a1_autobus 1

Activities - Basic animal nutrition (4/4)

Start Dat	Start	End	Subject	Subject	Group	Note	Length	Instructor	Room
06/02/2026	10:00	11:30	3 ENG	Basic animal nutrition		Final exam	1:30	Valpotić H.	P_kemija
18/02/2026	10:00	11:30	3 ENG	Basic animal nutrition		Final exam	1:30	Valpotić H.	P_kemija
Total: 33							56:45		

Course Basic Animal Nutrition

Timetable for LECTURES academic year 2025/2026

STUDENT OBLIGATIONS

Lecture attendance	During the session of the "Basic animal nutrition" course, the student must attend 8 lecture lessons to gain 3 minimal points. The maximal number of points from this evaluation element is 6 points. Students who don't obtain a minimum of the required points for the attendance of lectures are not eligible for the exam.
Practicals attendance	During the session of the "Basic animal nutrition" course, the student must attend 20 practical lessons to gain 8 points. The maximal number of points from this evaluation element is 12 points. Students who don't obtain a minimum of the required points for the attendance of practicals are not eligible for the exam.
Active participation in seminars and practicals	During practicals, the students will be evaluated for their activity through control of their assignments during calculations, computer calculations and work in the laboratory. Students who don't obtain a minimum of the required points for the activity or are not present at the time of the practicals are not eligible for the exam.
Compensation and correction of mid-term	Students who, for reasonable grounds, did not attend or didn't obtain the minimum required points from mid-term are obliged to take it during the following time. After the last regular mid-term, students are not entitled to compensation/correction until the next academic year.
Final exam	The final exam will be held in written form. The written exam would consist of 40 multiple choice questions (a, b, c, d, e). Each correct answer would carry 1 point (40 points in total), and an incorrect answer would carry 0 points. The minimum number of points for the assessment would be 24, and the maximum number of points would be 40. The total time students would be allowed to write this exam would be 50 minutes. As part of this evaluation element, it is possible to achieve a maximum of 40 points.
Examination requirements	Student requirements are defined in the Regulations on the 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. **Regulations On Intergraduate And Graduate Studies, Article 41:** 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 session, one mid-term will be organised at the time of the lessons, consisting of 32 questions or problems. Each correctly solved problem or answered question is worth 1 point. A student must gain a total of 20 points minimum from the mid-term. The maximum number of points from this evaluation is 32.
Mid-term (dates)	12.01.2026.- (12:00-14:00); 20.01.2026. (11:00-12:30)
Final exams (dates)	06.02.2026., 18.02.2026.
Form of final exam	Written exam

LITERATURE

Obligatory literature	MCDONALD, P., R. A. EDWARDS, J. F. D. GREENHALGH, C. A. MORGAN, L. A. SINCLAIR, R. G. WILKINSON (2010): Animal Nutrition (Seventh edition). Pearson Prentice Hall, USA.
Optional literature	POND, W. G., D. C. CHURCH, K. R. POND (1995): Basic Animal Nutrition and Feeding (Fourth Edition). John Wiley and Sons Inc., USA. CHEEKE, P. R. (2005): Applied Animal Nutrition. Feeds and Feeding (Third Edition). Pearson Prentice Hall, USA.

OBJECTIVES AND LEARNING OUTCOMES

Course objectives	After successfully passing the exam of course "Basic Animal Nutrition," students will gain basic knowledge in the area of animal nutrition necessary for better understanding the course "Applied Animal Nutrition," which starts the following semester. This means that students are familiar with the chemical components of feed, and the nutritive values of different groups of feedstuffs, and can apply this knowledge. In addition, students will be trained for autonomous organoleptic testing of feedstuffs propriety, their sampling, taking part in different methods of feed analysis, and interpretation of the results.
Learning outcomes	Interconnect basic concepts about nutrients Review analytical methods and basic chemical analysis of feed Reassess the nutritional value of feeds Compare the differences between feed mixtures and pet food Anticipate the harmful substances that can contaminate feed Review the results of individual analyses of animal feed Review the nutritional value and safety of certain feed ingredients Distinguish the production technology of certain forms of feed Determine the specific nutritional needs of animals in certain physiological and production periods Estimate the required nutritional composition of feed suitable for individual physiological and production periods

GRADING SCHEME

Points	*Grade*
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

GRADING AND EVALUATION OF STUDENT WORK ON COURSES WITH LECTURES, SEMINARS and PRACTICALS

Type of activity	Minimum number of points	Maximum number of points
Lectures attendance	3	6
Seminar attendance	4	6
Practicals attendance	4	6
Active participation in seminars and practicals	5	10
Continuous knowledge checking (mid-terms)	20	32
Final exam	24	40
TOTAL	60	100

GRADING AND EVALUATION OF STUDENT WORK ON COURSES WITH LECTURES and SEMINARS

Type of activity	Minimum number of points	Maximum number of points
Lecture attendance	3	6
Practicals attendance	8	12
Active participation in practicals	5	10
Continuous knowledge checking (mid-terms)	20	32
Final exam	24	40
TOTAL	60	100

GRADING AND EVALUATION OF STUDENT WORK ON COURSES WITH SEMINARS and EXCERCISES

Type of activity	Minimum number of points	Maximum number of points
Seminar / practicals attendance	11	18
Active participation in seminars and practicals	5	10
Continuous knowledge checking (mid-terms)	20	32
Final exam	24	40
TOTAL	60	100