

UNIVERSITY OF ZAGREB
 FACULTY OF VETERINARY MEDICINE
 Heinzelova 55
 Tel. 01/2390272
 Division: Division for Animal Production and Biotechnology
 Department of Animal Nutrition and Dietetics
 Email: prehrana_i_dijetetika@vef.hr
 Register no.: 61-07-21-06
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117229		REPUBLIKA HRVATSKA	
Veterinarski fakultet u Zagrebu			
Primljeno:	02.02.2021		
Klasifikacijska oznaka	Org. jed.		
605-03/20-04/25	251-61-17/251-61-32;		
Uredžbeni broj	Prilozi	Vrijednost	
251-61-07-21-66	0	-	

COURSE SYLLABUS

Course name: Applied Animal Nutrition

Academic year 2020-21

Course leader: Full professor Željko Mikulec, DVM, PhD

Teachers:

Full Professor Željko Mikulec, DVM, PhD
 Associate Professor Hrvoje Valpotić, DVM, PhD
 Assistant Professor Diana Brozić, DVM, PhD

First day of classes: February 22nd, 2021.
 Last day of classes: May 21st, 2021.

Timetable for LECTURES academic year 2020-2021

LECTURES				
Date	Methodological unit	Teacher	Location / time	Literature
22. 2. 2021.	Nutrition in different stages of development and production Factors affecting feed consumption	Associate Professor Hrvoje Valpotić	MS Teams (8.00-10.00 h)	1. + material from lectures
23. 2. 2021.	Feeding dairy cows	Associate Professor Hrvoje Valpotić	MS Teams (12.00-14.00 h)	1. + material from lectures
24. 2. 2021.	Calf nutrition Feeding beef cattle	Full professor Željko Mikulec	MS Teams (13.00-15.00 h)	1. + material from lectures
25. 2. 2021.	Sheep nutrition	Full professor Željko Mikulec	MS Teams (12.00-14.00 h)	1. + material from lectures
1. 3. 2021.	Goat nutrition	Full professor Željko Mikulec	MS Teams (7.30-8.15 h)	1. + material from lectures
1. 3. 2021.	Feeding growing-finishing pigs	Associate Professor Hrvoje Valpotić	MS Teams (8.15-9.00 h)	1. + material from lectures
2. 3. 2021.	Feeding sows and boars	Associate Professor Hrvoje Valpotić	MS Teams (9.15-10.45 h)	1. + material from lectures
3. 3. 2021.	Feeding piglets	Associate Professor Hrvoje Valpotić	MS Teams (12.00-14.00 h)	1. + material from lectures
10. 3. 2021.	Feeding poultry	Full professor Željko Mikulec	MS Teams (7.30-9.00 h)	1. + material from lectures
22. 3. 2021.	Feeding poultry	Full professor Željko Mikulec	MS Teams (10.00-11.30 h)	1. + material from lectures
25. 3. 2021.	Dog and cat nutrition	Assistant Professor Diana Brozić	MS Teams (10.00-12.00 h)	1. + material from lectures
31. 3. 2021.	Dog and cat nutrition	Assistant Professor Diana Brozić	MS Teams (8.00-8.45 h)	1. + material from lectures
31. 3. 2021.	Feeding horses	Assistant Professor Diana Brozić	MS Teams (8.45-9.30 h)	1. + material from lectures

8. 4. 2021.	Feeding horses	Assistant Professor Diana Brozić,	Lecture Room Department of Physiology and Radiobiology (8.15-9.00 h)	1. + material from lectures
8. 4. 2021.	Feeding rabbits	Associate Professor Hrvoje Valpotić	Lecture Room Department of Physiology and Radiobiology (9.15-10.00 h)	1. + material from lectures
9. 4. 2021.	Game nutrition	Full professor Željko Mikulec	Lecture Room Department of Physiology and Radiobiology (11.15-12.00 h)	1. + material from lectures

Timetable for PRACTICALS academic year 2020-2021

PRACTICALS						
Date	Methodological unit	Teacher	Type of practical	Group	Location / time	Literature
2. 3. 2021.	Feeding dairy cows	Assistant Professor Diana Brozić	Practicum	1, 2	Lecture Room Department of Veterinary Pathology (14.15-16.00 h)	1. + material from practicals
9. 3. 2021.	Feeding dairy cows Feeding beef cattle	Full professor Željko Mikulec	Practicum	1, 2	Lecture Room Department of Chemistry and Biochemistry (8.15-10.00 h)	1.+ material from practicals
12. 3. 2021.	Sheep and goat nutrition	Full professor Željko Mikulec	Practicum	1, 2	Lecture Room Department of	1. + material from practicals

					Veterinary Pathology (8.15-10.00 h)	
16. 3. 2021.	Swine nutrition	Associate Professor Hrvoje Valpotić	Practicum	1, 2	Lecture Room Department of Veterinary Pathology (14.15-16.00 h)	1. + material from practicals
17. 3. 2021.	Swine nutrition	Associate Professor Hrvoje Valpotić	Practicum	1, 2	Lecture Room Department of Physiology and Radiobiology (8.15-10.00 h)	1. + material from practicals
18. 3. 2021.	Feeding poultry	Full professor Željko Mikulec	Practicum	1, 2	Lecture Room Department of Veterinary Pathology (14.15-16.00 h)	1. + material from practicals
23. 3. 2021.	Feeding poultry	Full professor Željko Mikulec	Practicum	1, 2	Lecture Room Department of Physiology and Radiobiology (12.15-14.00 h)	1. + material from practicals
30. 3. 2021.	Dog and cat nutrition	Assistant Professor Diana Brozić	Practicum	1, 2	Lecture Room Department of Pharmacology and Toxicology (11.15-13.00 h)	1. + material from practicals
6. 4. 2021.	Dog and cat nutrition	Assistant Professor Diana Brozić	Practicum	1, 2	Lecture Room Department of Pharmacology and Toxicology (10.15-12.00 h)	1. + material from practicals
9. 4. 2021.	Feeding horses Laboratory animal feeding and nutrition	Assistant Professor Diana Brozić	Practicum	1, 2	Lecture Room Department of Physiology and Radiobiology (8.15-10.00 h)	1. + material from practicals

Timetable for FIELD COURSES academic year 2020-2021

FIELD COURSES						
Date	Methodological unit	Teacher	Type of practical	Group	Location / time	Literature
5. 3. 2021.	Field course 1	Full professor Željko Mikulec Associate Professor Hrvoje Valpotić Assistant Professor Diana Brozić	Field courses	1, 2	(10.00-16.00 h)	1. + material from practicals
26. 3. 2021.	Field course 2	Full professor Željko Mikulec Associate Professor Hrvoje Valpotić Assistant Professor Diana Brozić	Field courses	1, 2	(10.00-16.00 h)	1.+ material from practicals
16. 4. 2021.	Field course 3	Full professor Željko Mikulec Associate Professor Hrvoje Valpotić Assistant Professor Diana Brozić	Field courses	1, 2	(10.00 - 16.00 h)	1. + material from practicals
30. 4. 2021.	Field course 4	Full professor Željko Mikulec Associate Professor Hrvoje Valpotić Assistant Professor Diana Brozić	Field courses	1, 2	(10.00-16.00 h)	1. + material from practicals
21. 5. 2021.	Animal feed production	Full professor Željko Mikulec Associate Professor Hrvoje Valpotić Assistant Professor Diana Brozić	Field courses	1, 2	“Agroproteinka” d.d. Sesvetski Kraljevec (8.00-12.00 h)	1. + material from practicals

STUDENT OBLIGATIONS

Lecture attendance	During the session of the "Applied Animal Nutrition" course the student must attend 13 lecture lessons in order to gain 3 minimal points. Maximal number of points from this evaluation element is 6 points. Students that don't obtain a minimum of required points for the attendance of lectures are not eligible for exam.
Practicals attendance	During the session of the "Applied Animal Nutrition" course the student must attend 34 practical lessons in order to gain 8 minimal points. Maximal number of points from this evaluation element is 12 points. Students that don't obtain a minimum of required points for the attendance of practicals are not eligible for exam.
Active participation in seminars and practicals	During the session at the time of practicals the students will be given a short announced quiz. Minimum amount of points to pass this evaluation is 5. Students that don't obtain a minimum of required points for activity or are not present at the time of the quiz are not eligible for exam. The maximum number of points that student can gain at the quiz is 10.
Compensation and correction of mid-term	Students that for reasonable grounds did not attend or didn't obtain minimum required points form mid-term are obliged to take it during the following time. After the last regular mid-term students are not entitled for compensation/correction until the next academic year.
Final exam	The final exam will be held in oral form. At the final exam a student is given 5 questions each worth 8 points. The maximum number of points a student can gain at the final exam is 40. The student must gain a minimum of 24 points from this evaluation element.
Examination requirements	Student requirements are defined in the Regulations on the Integrated Undergraduate and Graduate Study of Veterinary Medicine. Given the above, the student must acquire a minimum number of points from all assessment elements in order to take the final exam. Article 45: 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, made out of 32 questions or problems. Each correctly solved problem or answered question is worth 1 point. A student must gain the total of 20 points min from the mid-term. The maximum number of points from this evaluation is 32 points. Student will have three terms to complete this evaluation element. Students that don't obtain a minimum of required points or are not present at all mid-terms in admitted time are not eligible for exam.
Final exams (dates)	29/3/2021., 31/5/2021., 15/6/2021., 6/7/2021., 30/8/2021., 21/9/2021.
Form of final exam	Oral

LITERATURE

Obligatory literature	1. Cheeke, P. R. (2005): Applied Animal Nutrition. Feeds and Feeding. (3rd ed.). Pearson Prentice Hall, USA.
Optional literature	1. Pond, W. G., D. C. Church, K. R. Pond (1995): Basic Animal Nutrition and Feeding (Fourth Edition). John Wiley and Sons Inc., USA. 2. 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.

OBJECTIVES AND LEARNING OUTCOMES

Course objectives	<p>Upon completion of the lectures and after passing the final exam of "Applied Animal Nutrition" the students will be able to recognize the conditions in the field and to take feed samples for chemical analysis. They will also know the right procedure of taking samples for analysis and super analysis and to correctly interpret the results. The acquired skills will enable them to individually formulate balanced rations and feedstuffs for all species and categories of animals. They will also be able to recognize specific nutrient deficiencies and malnutrition in domestic and wild animals which could have a negative effect on the health status and their products. Students will be capable of determining and applying preventive and therapeutic feeding in cases of metabolic disorders of high producing animals. Besides field work the students will be capable of working in feed mills and in other biomedical fields which require basic knowledge of veterinary nutrition.</p>
Learning outcomes	<p>Upon successful completion of the course students will be able to:</p> <ol style="list-style-type: none"> 1. Knowing the characteristics of feeding different species of domestic and wild animals in certain physiological periods 2. Estimating the daily nutritive needs of animals according to the tables of nutritional requirements, biological experiments and practical experience 3. Recognize deficiencies in feed of domestic and wild animals 4. Applied manual and computer assembling meals for certain species and categories of animals 5. Recommend proper feeding for different species and categories of animals in practical farm conditions and corrections for inappropriate feeding

GRADING SCHEME

<i>Points</i>	<i>Grade</i>
Up to 59	1 (F)
60-68	2 (E)
69-76	2 (D)
77-84	3 (C)
85-92	4 (B)
93-100	5 (A)

Course leader:



Head of Department/Clinic:



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