

UNIVERSITY OF ZAGREB
FACULTY OF VETERINARY MEDICINE

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Division: Animal Production and Biotechnology

Organizational unit: Animal Hygiene, Behaviour and Welfare

E-mail of the course leader: mostovic@vef.unizg.hr

Register No of the organisational unit: 96/24

Zagreb, 3/9/2024



190463	REPUBLIKA HRVATSKA		
Veterinarski fakultet u Zagrebu			
Primljeno:	03.09.2024		
Klasifikacijska oznaka	Org. jed.		
602-04/24-22/38	251-61-41;251-61-32;		
Uruđbeni broj	Prilozi	Vrijednost	
251-61-16-24-08	0	-	

COURSE SYLLABUS

Course name: Hygiene and Housing of Animals
Academic year 2024/2025 IIIrd (winter) semester

Course leader: Assoc. Prof. Mario Ostović

Deputy course leader: Full Prof. Kristina Matković

Teachers: Full Prof. Kristina Matković, Full Prof. Gordana Gregurić Gračner, Assoc. Prof. Mario Ostović, Assistant Ivana Sabolek

First day of classes: 25/11/2024

Last day of classes: 24/1/2025

Activities - Hygiene and Housing of Animals (1/3)

Start Date	Start T	End Ti	Subject	Group	Note	Length	Instructor	Room
25/11/2024	14:30	16:00	p01 Introduction, Environment and Health	3E-1, 3E-2, 3E-3		1:30	Matković K.	V_zoohigijena
27/11/2024	13:30	15:00	p02 Microclimate	3E-1, 3E-2, 3E-3		1:30	Ostović M.	V_zoohigijena
28/11/2024	13:30	15:00	v01 Heat balance	3E-1, 3E-2		1:30	Nastavnici na predmetu	V_zoohigijena
02/12/2024	10:15	11:45	v01 Heat balance	3E-3		1:30	Nastavnici na predmetu	V_zoohigijena
02/12/2024	13:00	14:30	p03 Stables	3E-1, 3E-2, 3E-3		1:30	Gregurić Gračner G.	V_zoohigijena
03/12/2024	8:15	9:45	p04 Transport	3E-1, 3E-2, 3E-3		1:30	Gregurić Gračner G.	V_zoohigijena
03/12/2024	14:00	15:30	v02 Microclimate 1	3E-3		1:30	Nastavnici na predmetu	V_zoohigijena
04/12/2024	10:00	11:30	v02 Microclimate 1	3E-1, 3E-2		1:30	Nastavnici na predmetu	V_zoohigijena
04/12/2024	13:00	13:45	p05 Biosecurity	3E-1, 3E-2, 3E-3		0:45	Matković K.	V_zoohigijena
04/12/2024	13:45	14:30	p05 Carcasses and confiscate	3E-1, 3E-2, 3E-3		0:45	Ostović M.	V_zoohigijena
06/12/2024	9:30	11:00	v03 Microclimate 2	3E-1, 3E-2		1:30	Nastavnici na predmetu	V_zoohigijena
06/12/2024	11:00	12:30	v03 Microclimate 2	3E-3		1:30	Nastavnici na predmetu	V_zoohigijena
09/12/2024	11:30	13:00	p06 Disinfection	3E-1, 3E-2, 3E-3		1:30	Ostović M.	V_zoohigijena
09/12/2024	14:45	16:15	v04 Stables	3E-3		1:30	Nastavnici na predmetu	V_zoohigijena
11/12/2024	11:30	13:00	v04 Stables	3E-1, 3E-2		1:30	Nastavnici na predmetu	V_zoohigijena

Activities - Hygiene and Housing of Animals (2/3)								
Start Date	Start T	End Ti	Subject	Group	Note	Length	Instructor	Room
12/12/2024	11:30	13:00	v05 Transport	3E-1, 3E-2		1:30	Nastavnici na predmetu	V_zoohigijena
13/12/2024	13:30	15:00	v05 Transport	3E-3		1:30	Nastavnici na predmetu	V_zoohigijena
16/12/2024	10:00	11:30	v06 Repetitorium and colloquium	3E-3		1:30	Nastavnici na predmetu	V_zoohigijena
16/12/2024	11:30	13:00	v06 Repetitorium and colloquium	3E-1, 3E-2		1:30	Nastavnici na predmetu	V_zoohigijena
18/12/2024	9:45	11:15	v07 Sanitary measures and environment	3E-1, 3E-2		1:30	Nastavnici na predmetu	V_zoohigijena
18/12/2024	11:45	13:15	v07 Sanitary measures and environment	3E-3		1:30	Nastavnici na predmetu	V_zoohigijena
08/01/2025	15:00	16:30	v08 Disinfection	3E-3		1:30	Nastavnici na predmetu	V_zoohigijena
09/01/2025	13:15	14:45	v08 Disinfection	3E-1, 3E-2		1:30	Nastavnici na predmetu	V_zoohigijena
10/01/2025	8:15	9:45	v09 Sanitary measures and environment	3E-1, 3E-2		1:30	Nastavnici na predmetu	V_zoohigijena
10/01/2025	14:00	15:30	p07 Disinsection	3E-1, 3E-2, 3E-3		1:30	Matković K.	V_zoohigijena
13/01/2025	15:30	17:00	v09 Sanitary measures and environment	3E-3		1:30	Nastavnici na predmetu	V_zoohigijena
14/01/2025	15:00	16:30	v10 Harmful insects	3E-3		1:30	Nastavnici na predmetu	V_zoohigijena
15/01/2025	13:45	15:15	v10 Harmful insects	3E-1, 3E-2		1:30	Nastavnici na predmetu	V_zoohigijena

Activities - Hygiene and Housing of Animals (3/3)

Start Date	Start T	End Ti	Subject	Group	Note	Length	Instructor	Room
21/01/2025	10:00	11:30	p08 Deratisation	3E-1, 3E-2, 3E-3		1:30	Matković K.	V_zoohigijena
23/01/2025	10:00	11:30	v11 Harmful rodents	3E-1, 3E-2		1:30	Nastavnici na predmetu	V_zoohigijena
23/01/2025	12:30	14:00	v11 Harmful rodents	3E-3		1:30	Nastavnici na predmetu	V_zoohigijena
24/01/2025	10:00	11:30	v12 Repetitorium and colloquium	3E-1, 3E-2		1:30	Nastavnici na predmetu	V_zoohigijena
24/01/2025	12:00	13:30	v12 Repetitorium and colloquium	3E-3		1:30	Nastavnici na predmetu	V_zoohigijena
Total: 33						48:00		

STUDENT OBLIGATIONS

Lecture attendance	During the two semesters, the student must be present at 15 hours of lectures to get minimal 3 credits. An achievable maximum point in this element is 6.
Seminars attendance	During the semester, the student must be present at 16 hours of seminars to get minimal 4 credits. An achievable maximum point in this element is 6.
Practicals attendance	During the two semesters, the student must be present at 30 hours of practicals to get minimal 4 credits. An achievable maximum point in this element is 6.
Active participation in seminars and practicals	Activity in the practicals and seminars shall be graded as follows: for correct answers during practicals in the III rd semester the student achieves min 1 point, max 2 points; to create a seminar paper in the IV th semester the student achieves 2 points, if the seminar is held at the Power Point, the student achieves an additional 2 points; to create reports from field practicals in the IV th semester the student achieves 4 points. In total, the student can achieve max 10 points.
Final exam	Minimum conditions for the passage of the first, second, third, fourth and fifth evaluation elements will be aggregated and must amount to 36 credits. To access the final exam, students need to realize those 36 points. The final exam will be conducted in the form of a written exam, which consists of 8 questions (2 points to "sufficient" response on the question, 3 points for "good" response on the question, 4 points for "very good" response on the question, 5 points for "excellent" response on the question). With the total of 40 collected points the student will achieve a maximum of 40 points. For a minimum 24 points, the student must collect 24 points out of this 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. Regulations on the Integrated 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 practicals.

GRADING AND EVALUATING STUDENT WORK

Continuous knowledge-checking (mid-terms)	First colloquium 16/12/2024 Second colloquium 24/1/2025
Final exams (dates)	13/11/2024, 6/12/2024, 6/2/2025, 17/2/2025
Form of final exam	Written exam

LITERATURE

Obligatory literature	1. ALAND, A., T. BANHAZI (2013): Livestock Housing. Wageningen Academic Publishers, NL. 2. BUCKLE, A. P., R. H. SMITH (1994): Rodent Pests and Their Control. CABI Publishing, London, UK. 3. DEEMING, D. C. (1999): The Ostrich: Biology, Production and Health. CABI Publishing, London, UK. 4. DEWI, I. A., R. F. E. AXFORD, I. F. M. MARAI, H. OMED (1994): Pollution in Livestock Production Systems. CABI Publishing, London, UK. 5. GRANDIN, T. (2000): Livestock Handling and Transport. 2nd edition. CABI Publishing, London, UK. 6. HARRISON, R. M. (1995): Pollution: Causes, Effects and Control. 2nd edition. The Royal Society of Chemistry, Cambridge, UK. 7. McNAMARA, J. P., D. E. BEEVER (2000): Modeling Nutritient Utilization in Farm Animals. CABI Publishing, London, UK. 8. METHLING, V., J. UNSHELM (Hrsg.) (2002): Umwelt- und tier- gerechte Haltung von Nutz-, Heim- und Begleitteren. Parey Buchverlag, Berlin, Deutschland. 9. STRAUCH, D., R. BÖHM (Hrsg.) (2002): Reinigung und Desinfektion in der Nutztierhaltung und Veredelungswirtschaft. Enke Verlag, Stuttgart, Deutschland. 10. WATHES, C. M., D. R. CHARLES (1994): Livestock Housing. CABI Publishing, London, UK. 11. WEBSTER, J. (Ed.) (2011): Management and Welfare of Farm Animals. The UFAW Farm Handbook. 5th edition. Wiley-Blackwell, UK.
Optional literature	1. ASAJ, A. (1999): Deratizacija u praksi. Medicinska naklada, Zagreb. 2. ASAJ, A. (1999): Zdravstvena dezinsekcija u nastambama i okolišu. Medicinska naklada, Zagreb. 3. ASAJ, A. (2000): Dezinfekcija. Medicinska naklada, Zagreb. 4. ASAJ, A. (2003): Higijena na farmi i u okolišu. Medicinska naklada, Zagreb. 5. CAPUT, P. (1996): Govedarstvo. Celeber d.o.o., Zagreb. 6. DOLENEC, Ž. (1994): Svinjogojstvo. Nakladni zavod Globus, Zagreb. 7. MARTINOVIĆ, J. (2000): Tla u Hrvatskoj. Pokret prijatelja prirode „Lijepa naša“, Zagreb. 8. MIOČ, B., V. PAVIĆ (2002): Kozarstvo. Hrvatska mljekarska udruga, Zagreb. 9. NEMANIĆ, J., Ž. BERIĆ (1995): Peradarstvo. Nakladni zavod Globus, Zagreb. 10. OMRČEN, S. (1995): Kuničarstvo. Nakladni zavod Globus, Zagreb. 11. SENČIĆ, Đ., Ž. PAVIČIĆ, Ž. BUKVIĆ (1996): Intenzivno svinjogojstvo. NIP Nova Zemlja, Osijek. 12. UREMOVIĆ, M., Z. UREMOVIĆ (1997): Svinjogojstvo. Agronomski fakultet Sveučilišta u Zagrebu, Zagreb. 13. UREMOVIĆ, Z. (2004): Govedarstvo. Hrvatska mljekarska udruga, Zagreb. 14. UREMOVIĆ, Z., M. UREMOVIĆ, V. PAVIĆ, B. MIOČ, S. MUŽIĆ, Z. JANJEČIĆ (2002): Stočarstvo. Agronomski fakultet Sveučilišta u Zagrebu, Zagreb. 15. VUČEMILO, M. (2008): Higijena i bioekologija u peradarstvu. Veterinarski fakultet Sveučilišta u Zagrebu, Zagreb.

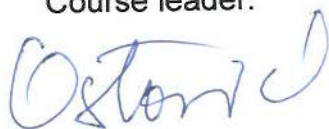
OBJECTIVES AND LEARNING OUTCOMES

Course objectives	The objective of the course is to develop competences qualifying students for preservation of biological balance between the environment and the animal while exhibiting appropriate health state through optimal productivity and reproduction.
Learning outcomes	After successfully mastering the course students will be able to: - review the impact of the accommodation and housing conditions of certain species and categories of animals on their health, production and reproductive performance - argue the role of veterinarians in the transportation and care of animals in order to avoid stress and disorders in their health due to improper transfer from one environment to another or poor hygiene of animals - differentiate ways of animal waste disposal in order to prevent environmental pollution - independently measure microclimatic conditions in certain animal facilities - propose appropriate measures of disinfection and control of harmful insects and rodents in order to preserve the animal and human health status - independently assess animal welfare on the basis of the production conditions.

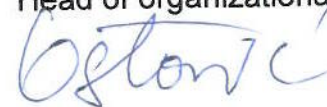
GRADING SCHEME

<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