

Course HYGIENE AND HOUSING OF ANIMALS

UNIVERSITY OF ZAGREB
FACULTY OF VETERINARY MEDICINE
Heinzelova 55
Tel. 01/2390292
Division: Animal production and biotechnology
Organizational unit: Animal Hygiene, Behaviour and Welfare
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Register No of the organisational unit: 26/2023
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159684	REPUBLIKA HRVATSKA		
Veterinarski fakultet u Zagrebu			
Primljeno:	09.02.2023		
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Uredžbeni broj	Prilozi	Vrijednost	
251-61-16/340-23-60	0	-	

COURSE SYLLABUS

Course name: Hygiene and Housing of Animals

Academic year 2022-23 IV. (summer) semester

Course leader: Full Prof. Kristina Matković
Deputy course leader: Assoc. Prof. Mario Ostović

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

First day of classes: 27/2/2023
Last day of classes: 12/5/2023

Timetable for LECTURES academic year 2022-2023

LECTURES				
Date	Methodological unit	Teacher	Location / time	Literature
27/2/2023 1 st lecture	Hygiene of cattle accommodation and housing	Full Prof. Kristina Matković	Practical Hall of Animal Hygiene, Behaviour and Welfare 12am - 2pm	see list of literature
28/2/2023 2 nd lecture	Hygiene of pig accommodation and housing	Assoc. Prof. Mario Ostović	Practical Hall of Animal Hygiene, Behaviour and Welfare 12am – 2pm	see list of literature
1/3/2023 3 rd lecture	Hygiene of poultry accommodation and housing	Full Prof. Kristina Matković	Practical Hall of Animal Hygiene, Behaviour and Welfare 12am – 2pm	see list of literature
2/3/2023 4 th lecture	Herd health in the context of animal housing and welfare	Full Prof. Kristina Matković	Practical Hall of Animal Hygiene, Behaviour and Welfare 8am-10am	see list of literature
7/3/2023 5 th lecture	Hygiene of pet and laboratory animal accommodation and housing	Assoc. Prof. Gordana Gregurić Gračner	Practical Hall of Animal Hygiene, Behaviour and Welfare 8am-10am	see list of literature
8/3/2023 6 th lecture	Animal faecal matter	Assoc. Prof. Mario Ostović	Practical Hall of Animal Hygiene, Behaviour and Welfare 8am-10am	see list of literature
10/3/2023 7 th lecture	Hygiene of horse accommodation and housing	Assoc. Prof. Gordana Gregurić Gračner	Practical Hall of Animal Hygiene, Behaviour and Welfare 9am-10am	see list of literature

Timetable for SEMINARS academic year 2022-2023

SEMINARS					
Date	Methodological unit	Teacher	Group	Location / time	Literature
3/3/2023 1 st seminar	Herd health in the context of cattle production	Full Prof. Kristina Matković	1,2,3	Practical Hall of Animal Hygiene, Behaviour and Welfare 10am-12am	Handout
6/3/2023 2 nd seminar	Herd health in the context of sheep and goat production	Assoc. Prof. Mario Ostović	1,2,3	Practical Hall of Animal Hygiene, Behaviour and Welfare 12-14 (12am-2pm)	Handout
13/3/2023 3 rd seminar	Herd health in the context of pig production	Assoc. Prof. Mario Ostović	1,2,3	Practical Hall of Animal Hygiene, Behaviour and Welfare 10am-12am	Handout
16/3/2023 4 th seminar	Herd health in the context of poultry production	Kristina Matković Full Prof.	1,2,3	Practical Hall of Animal Hygiene, Behaviour and Welfare 8am-10am	Handout
17/3/2023 5 th seminar	Hygiene of poultry accommodation and housing (turkeys, geese, ducks); ostrich egg incubation	Assoc. Prof. Gordana Gregurić Gračner	1,2,3	Practical Hall of Animal Hygiene, Behaviour and Welfare 12am – 2pm	Handout
20/3/2023 6 th seminar	Repetitorium and colloquium	Assoc. Prof. Mario Ostović	1,2,3	Practical Hall of Animal Hygiene, Behaviour and Welfare 10am-12am	Handout
23/3/2023 7 th seminar	Hygiene of horse accommodation and housing	Assis. Ivana Sabolek	1,2,3	Practical Hall of Animal Hygiene, Behaviour and Welfare 2pm – 4pm	Handout
27/3/2023 8 th seminar	Laboratory animals (biological and ecological characteristics)	Assoc. Prof. Gordana Gregurić Gračner	1,2,3	Practical Hall of Animal Hygiene, Behaviour and Welfare 12am – 2 pm	Handout
28/3/2023 9 th seminar	Animal faecal matter (composting, biogas)	Assis. Ivana Sabolek	1,2,3	Practical Hall of Animal Hygiene, Behaviour and Welfare	Handout

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				12am – 2 pm	
31/3/2023 10 th seminar	Biosafety measures at farms	Assis. Ivana Sabolek	1,2,3	Practical Hall of Animal Hygiene, Behaviour and Welfare 10am-12am	Handout
11/4/2023 11 th seminar	Repetitorium and colloquium	Full Prof. Kristina Matković	1,2,3	Practical Hall of Animal Hygiene, Behaviour and Welfare 8am-10am	Handout

Timetable for PRACTICALS academic year 2022-2023

PRACTICALS						
Date	Methodological unit	Teacher	Type of practical	Group	Location / time	Literature
24/3/2023 1 st practical	Measurements of microclimate parameters and evaluation of accommodation and housing hygiene for particular animal species and categories	Assoc. Prof. Mario Ostović Assoc. Prof. Gordana G. Gračner	field	1,2,3	Farm / departure at 10 am	Handout
12/4/2023 2 nd practical	Measurements of microclimate parameters and evaluation of accommodation and housing hygiene for particular animal species and categories	Assoc. Prof. Mario Ostović Assistant Ivana Sabolek	field	1,2,3	Farm / departure at 10 am	Handout
27/4/2023 3 rd practical	Measurements of microclimate parameters and evaluation of accommodation and housing hygiene for particular animal species and categories	Assoc. Prof. Gordana G. Gračner Full Prof. Kristina Matković	field	1,2,3	Farm / departure at 10 am	Handout
12/5/2023 4 th practical	Measurements of microclimate parameters and evaluation of accommodation and housing hygiene for particular animal species and categories	Full Prof. Kristina Matković Assoc. Prof. Mario Ostović	field	1,2,3	Farm / departure at 10 am	Handout

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 18 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 34 hours of practical's to get minimal 4 credits. An achievable maximum point in this element is 6.
Active participation in seminars and practicals	Activity in the practical's and seminars shall be graded as follows: for correct answers during practicals in III semester student achieves min 1 point, max 2 points; to create a seminar paper in IV semester achieves 2 points. If the seminar is held at the Power Point, the student achieves an additional 2 points. (IV semester – 4 points,); Creating reports from field practical's (IV semester) 4 points, max in IV semester 8 points. In total student can for active participation in seminars and practicals achieve min 5 points and 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 a "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, a 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. Article 41: a student can justifiably be absent from up to 50 % of the lectures; 20% of the seminars and 20 % of the exercises.

GRADING AND EVALUATING STUDENT WORK

Continuous knowledge-checking (mid-terms)	First colloquium 20/3/2023 Second colloquium 11/ 4/2023
Final exams (dates)	23/03/2023/, 14/06/2023/, 11/07/2023/, 11/09/2023/, 20/09/2023/
Form of final exam	Written exam

LITERATURE

Obligatory literature	<ol style="list-style-type: none"> 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. Mc NAMARA, J. P., D. E. BEEVER (2000): Modeling Nutrient 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. UFAW Animal welfare series. Wiley-Blackwell. UK.
Optional literature	<ol style="list-style-type: none"> 1. ASAJ, A. (2003): Higijena na farmi i u okolišu. Medicinska naklada, Zagreb

2. ASAJ, A. (1999): Deratizacija u praksi. Medicinska naklada, Zagreb.
3. ASAJ, A. (1999): Dezinfekcija. Medicinska naklada, Zagreb.
4. ASAJ, A. (1999): Zdravstvena dezinsekcija u nastambama i 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. NEMANIČ, J., Ž. BERIĆ (1995): Peradarstvo. Nakladni zavod Globus, Zagreb.
10. OMRČEN, S. (1995): Kuničarstvo. Naladni 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, Zagreb.
13. UREMOVIĆ, Z. (2004): Govedarstvo. Hrvatska mljekarska udruga, Zagreb.
14. UREMOVIĆ, Z., M. UREMOVIĆ, V. PAVIĆ, B. MIOČ, S. MUŽIC, Z. JANJEČIĆ (2002): Stočarstvo. Agronomski fakultet, 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	<p>After successfully mastering the course students will be able to:</p> <ol style="list-style-type: none">1. describe the impact of the accommodation and housing conditions of certain species and categories of animals on their health, production and reproductive performance;2. define 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;3. choose ways of animal waste substances disposing for the environmental pollution prevention;4. independently verify the microclimatic conditions in certain animal facilities;5. propose appropriate measures of disinfection and control of harmful insects and rodents in order to preserve the animals and humans health status;6. independently conclude about animal welfare on the basis of the production conditions

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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:

Mathon D

Head of organizational unit:

Ostojic

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