

UNIVERSITY OF ZAGREB
FACULTY OF VETERINARY MEDICINE
Heinzelova 55
Tel. 01/2390 320
Division: Clinics
Organizational unit: Reproduction and Obstetrics
E-mail of the course leader: jgrizelj@vef.unizg.hr
Register No of the organisational unit:
Zagreb, 22/1/2024



177838	REPUBLIKA HRVATSKA	
Veterinarski fakultet u Zagrebu		
Primljeno:	25.01.2024	
Klasifikacijska oznaka	Org. jed.	
605-03/23-04/28	251-61-32;251-61-41;	
Uredžbeni broj	Prilozi	Vrijednost
251-61-22/323-24-77	0	-

COURSE SYLLABUS

Course name: Obstetrics and Reproduction 1
Academic year 2023/2024

Course leader: Full Prof. Juraj Grizelj

Deputy course leader: Full Prof. Nikica Prvanović Babić

Teachers: Full Prof. Juraj Grizelj, Full Prof. Martina Lojkić, Full Prof. Nikica Prvanović Babić, Full Prof. Marko Samardžija, Full Prof. Silvijo Vince, Assoc. Prof. Ivan Folnožić, Assoc. Prof. Iva Getz, Assoc. Prof. Branimira Špoljarić, postdoctoral assistant Ivan Butković, Juraj Šavorić, DMV

First day of classes: 26/2/2024

Last day of classes: 4/6/2024

Activities - Obstetrics and Reproduction 1 (1/7)

	Start T	End Ti	Subject	Group	Note	Length	Instructor	Room
26/02/2024	10:00	11:30	p01 Hormonal Regulation of Reproductive Cycle	8E-1, 8E-2, 8E-3		1:30	Samardžija M.	P_fizika
27/02/2024	11:45	13:15	p02 Cows and Heifers 1	8E-1, 8E-2, 8E-3		1:30	Špoljaric B.	P_farmakologija
28/02/2024	11:30	13:00	p03 Cows and Heifers 2	8E-1, 8E-2, 8E-3		1:30	Špoljaric B.	P_fizika
29/02/2024	8:15	9:45	p04 Reproductive Cycle of Mares	8E-1, 8E-2, 8E-3		1:30	Grizelj J.	P_fizika
01/03/2024	11:30	13:45	v01 Anatomy of the Female	8E-1, 8E-2		2:15	Grizelj J.	V_porodništvo
04/03/2024	13:30	15:00	p05 Reproductive cycle of Sows	8E-1, 8E-2, 8E-3, V_parazitologija		1:30	Samardžija M.	P_fizika
06/03/2024	13:00	15:15	v01 Anatomy of the Female	8E-3		2:15	Grizelj J.	V_porodništvo
07/03/2024	10:30	12:45	v02 Anatomy of the Female II	8E-3		2:15	Šavoric J.	V_porodništvo
07/03/2024	14:00	16:15	v02 Anatomy of the Female II	8E-1, 8E-2		2:15	Šavoric J.	V_porodništvo
12/03/2024	8:00	10:15	v03 General Gynaecologic	8E-1, 8E-2		2:15	Butkovic I.	V_porodništvo
12/03/2024	14:00	16:15	v03 General Gynaecologic	8E-3		2:15	Butkovic I.	V_porodništvo
14/03/2024	14:30	16:45	v04 General Gynaecologic	8E-3		2:15	Folnožic I.	V_porodništvo
15/03/2024	10:00	12:15	v04 General Gynaecologic	8E-1, 8E-2		2:15	Folnožic I.	V_porodništvo
19/03/2024	8:00	10:15	v05 Gynaecologic Examination of Cows	8E-3, V_porodništvo		2:15	Samardžija M.	V_porodništvo
20/03/2024	7:45	10:00	v05 Gynaecologic Examination of Cows	8E-1, 8E-2		2:15	Samardžija M.	V_porodništvo
22/03/2024	8:00	10:15	v06 Gynaecologic Examination of Cows	8E-1, 8E-2		2:15	Grizelj J.	V_porodništvo
26/03/2024	8:00	10:15	v06 Gynaecologic Examination of Cows	8E-3		2:15	Grizelj J.	V_porodništvo

Activities - Obstetrics and Reproduction 1 (2/7)

	Start T	End Ti	Subject	Group	Note	Length	Instructor	Room
03/04/2024	12:15	16:00	v07 Gynaecologic Examina. of Cows/Bovine Farm Sljeme	8E-1, 8E-2		3:45	Vince S.	V_porodništvo
04/04/2024	11:00	13:15	v08 Gynaecologic Examination of Mares	8E-1, 8E-2		2:15	Grizelj J.	V_porodništvo
04/04/2024	14:00	15:30	p06 Reproductive Cycle of Goats and Sheep	8E-1, 8E-2, 8E-3		1:30	Špoljaric B.	P_klinike
05/04/2024	10:00	13:45	v07 Gynaecologic Examina. of Cows/Bovine Farm Sljeme	8E-3		3:45	Vince S.	V_porodništvo
05/04/2024	14:00	16:15	v08 Gynaecologic Examination of Mares	8E-3		2:15	Grizelj J.	V_porodništvo
08/04/2024	8:00	10:15	v09 Gynaecologic Examination of Small Ruminants	8E-1, 8E-2		2:15	Špoljaric B.	V_porodništvo
08/04/2024	12:45	14:15	p07 Reproductive Cycle of Bitches and Cats	8E-1, 8E-2, 8E-3		1:30	Folnožic I.	P_klinike
09/04/2024	8:00	10:15	v09 Gynaecologic Examination of Small Ruminants	8E-3		2:15	Špoljaric B.	V_porodništvo
10/04/2024	8:00	10:15	v10 Gynaecologic Examination of Cows	8E-3		2:15	Šavoric J.	V_porodništvo
10/04/2024	16:15	20:00	v26 Clinical Night Shift	8E-1		3:45	Špoljaric B.	V_porodništvo
11/04/2024	9:00	10:30	p08 Oogenesis and follicular development	8E-1, 8E-2, 8E-3		1:30	Lojkic M.	P_klinike
11/04/2024	11:00	13:15	v10 Gynaecologic Examination of Cows	8E-1, 8E-2		2:15	Šavoric J.	V_porodništvo
12/04/2024	8:00	10:15	v11 Gynaecologic Examination of Mares	8E-1, 8E-2		2:15	Getz I.	V_porodništvo

Activities - Obstetrics and Reproduction 1 (3/7)

	Start T	End Ti	Subject	Group	Note	Length	Instructor	Room
12/04/2024	12:30	14:45	v11 Gynaecologic Examination of Mares	8E-3		2:15	Getz I.	V_porodništvo
15/04/2024	12:15	14:30	v12 Gynaecologic Examination of Cows	8E-1, 8E-2		2:15	Grizelj J.	V_porodništvo
16/04/2024	14:00	16:15	v12 Gynaecologic Examination of Cows	8E-3		2:15	Grizelj J.	V_porodništvo
17/04/2024	10:30	12:00	p09 Hormonal Regulation of Ovulation	8E-1, 8E-2, 8E-3		1:30	Lojkic M.	P_klinike
17/04/2024	15:00	17:15	v13 Anatomy of the Male dissection	8E-1, 8E-2		2:15	Lojkic M.	V_porodništvo
18/04/2024	8:00	10:15	v13 Anatomy of the Male dissection	8E-3		2:15	Lojkic M.	V_porodništvo
18/04/2024	10:30	12:00	p10 Fertilization ana Nidation 1	8E-1, 8E-2, 8E-3		1:30	Lojkic M.	P_klinike
18/04/2024	13:30	15:45	v14 Anatomy of the Male	8E-1, 8E-2		2:15	Samardžija M.	V_porodništvo
19/04/2024	10:45	13:00	v14 Anatomy of the Male	8E-3		2:15	Samardžija M.	V_porodništvo
19/04/2024	14:30	16:00	p11 Fertilization and Nidation 2	8E-1, 8E-2, 8E-3		1:30	Prvanovic B. N.	P_klinike
23/04/2024	9:00	11:15	v15 Anatomy of the Male revision	8E-1, 8E-2		2:15	Butkovic I.	V_porodništvo
23/04/2024	12:00	13:30	p12 Fertilization and Nidation 3	8E-1, 8E-2, 8E-3		1:30	Prvanovic B. N.	P_klinike
23/04/2024	14:00	16:15	v15 Anatomy of the Male revision	8E-3		2:15	Butkovic I.	V_porodništvo

Activities - Obstetrics and Reproduction 1 (4/7)

	Start T	End Ti	Subject	Group	Note	Length	Instructor	Room
24/04/2024	10:45	13:00	v16 Andrologic Examination and semen examination 1	8E-1, 8E-2		2:15	Lojkic M.	V_porodništvo
24/04/2024	14:45	16:15	p13 Pregnancy Diagnosis 1	8E-1, 8E-2, 8E-3		1:30	Getz I.	P_klinike
25/04/2024	7:45	10:00	v16 Andrologic Examination and semen examination 1	8E-3		2:15	Lojkic M.	V_porodništvo
25/04/2024	14:15	15:45	p14 Pregnancy Diagnosis 2	8E-1, 8E-2, 8E-3		1:30	Getz I.	P_klinike
26/04/2024	8:00	10:15	v17 Semen Examination 2	8E-3		2:15	Lojkic M.	V_porodništvo
29/04/2024	7:45	10:00	v18 Semen Examination Revision	8E-3		2:15	Lojkic M.	V_porodništvo
29/04/2024	11:00	13:15	v18 Semen Examination Revision	8E-1, 8E-2		2:15	Lojkic M.	V_porodništvo
29/04/2024	14:45	16:15	p15 Pathology of Pregnancy 1	8E-1, 8E-2, 8E-3		1:30	Getz I.	P_klinike
30/04/2024	14:00	15:30	p16 Pathology of Pregnancy 2	8E-1, 8E-2, 8E-3		1:30	Vince S.	P_fizika
30/04/2024	16:15	20:00	v26 Clinical Night Shift	8E-2		3:45	Špoljaric B.	V_porodništvo
06/05/2024	7:30	9:00	p17 Pathology of Pregnancy 3	8E-1, 8E-2, 8E-3		1:30	Vince S.	P_klinike
06/05/2024	9:15	11:30	v19 Vaginal Smears Examination	8E-3		2:15	Šavoric J.	
06/05/2024	11:45	14:00	v19 Vaginal Smears Examination	8E-1, 8E-2		2:15	Šavoric J.	
07/05/2024	10:00	11:30	p18 Physiology of Labour and Delivery 1	8E-1, 8E-2, 8E-3		1:30	Prvanovic B. N.	P_klinike
07/05/2024	11:45	14:00	v20 Vaginal Smears Examination	8E-1, 8E-2		2:15	Folnožic I.	V_porodništvo
07/05/2024	14:00	16:15	v20 Vaginal Smears Examination	8E-3		2:15	Folnožic I.	V_porodništvo

Activities - Obstetrics and Reproduction 1 (5/7)

	Start T	End Ti	Subject	Group	Note	Length	Instructor	Room
08/05/2024	9:20	11:35	v21 Artificial Vaginas and Semen Collection	8E-3		2:15	Folnožic I.	V_porodništvo
08/05/2024	12:00	14:15	v21 Artificial Vaginas and Semen Collection	8E-1, 8E-2		2:15	Folnožic I.	V_porodništvo
09/05/2024	8:15	9:45	p19 Physiology of Labour and Delivery 2	8E-1, 8E-2, 8E-3		1:30	Prvanovic B. N.	P_klinike
09/05/2024	11:45	14:00	v22 Udder Examination	8E-1, 8E-2, 8E-3		2:15	Vince S.	V_porodništvo
10/05/2024	7:30	9:45	v23 Gynaecologic Examination of pets	8E-3		2:15	Folnožic I.	V_porodništvo
10/05/2024	11:15	13:30	v23 Gynaecologic Examination of pets	8E-1, 8E-2		2:15	Folnožic I.	V_porodništvo
10/05/2024	14:30	16:00	p20 Spermiology 1	8E-1, 8E-2, 8E-3		1:30	Lojkic M.	P_klinike
13/05/2024	7:30	13:30	v24 Gynaecologic exami. of cows Bovine farm Bjelovar	8E-1, 8E-2, 8E-3		6:00	Grizelj J.	V_porodništvo
14/05/2024	8:15	9:45	p21 Spermiology 2	8E-1, 8E-2, 8E-3, P_klinike		1:30	Samardžija M.	P_klinike
14/05/2024	10:00	12:15	v25 Gynaecologic Surgical Operations	8E-1, 8E-2		2:15	Folnožic I.	V_porodništvo
15/05/2024	11:30	13:45	v27 Gynaecologic Surgical Operations	8E-3		2:15	Folnožic I.	V_porodništvo
15/05/2024	14:00	16:15	v27 Gynaecologic Surgical Operations	8E-1, 8E-2		2:15	Folnožic I.	V_porodništvo
16/05/2024	8:15	9:45	p22 Artificial Insemination	8E-1, 8E-2, 8E-3		1:30	Grizelj J.	P_klinike
16/05/2024	10:30	12:45	v28 Udder Examination	8E-1, 8E-2		2:15	Šavoric J.	V_porodništvo
16/05/2024	13:00	15:15	v28 Udder Examination	8E-3		2:15	Šavoric J.	V_porodništvo

Activities - Obstetrics and Reproduction 1 (6/7)

	Start T	End Ti	Subject	Group	Note	Length	Instructor	Room
17/05/2024	9:00	11:15	v29 Gynaecologic Examination of pets	8E-1, 8E-2		2:15	Folnožic I.	V_porodništvo
17/05/2024	12:00	13:30	p23 Physiology and Pathology of the Puerperium 1	8E-1, 8E-2, 8E-3		1:30	Folnožic I.	P_klinike
17/05/2024	14:00	16:15	v29 Gynaecologic Examination of pets	8E-3		2:15	Folnožic I.	V_porodništvo
20/05/2024	8:00	10:15	v30 Gynaecologic Examination of Mares	8E-1, 8E-2		2:15	Grizelj J.	V_porodništvo
20/05/2024	11:15	13:30	v30 Gynaecologic Examination of Mares	8E-3		2:15	Grizelj J.	V_porodništvo
20/05/2024	15:00	16:30	p24 Physiology and Pathology of the Puerperium 2	8E-1, 8E-2, 8E-3		1:30	Folnožic I.	P_klinike
20/05/2024	18:00	21:45	v26 Clinical Night Shift	8E-3		3:45	Špoljaric B.	V_porodništvo
21/05/2024	10:00	12:15	v31 Gynaecologic Examination of pets	8E-3		2:15	Folnožic I.	V_porodništvo
21/05/2024	13:45	16:00	v32 Gynaecologic Examination of pets	8E-1, 8E-2		2:15	Folnožic I.	V_porodništvo
23/05/2024	10:15	11:45	p25 Physiology and Pathology of the Puerperium 3	8E-1, 8E-2, 8E-3		1:30	Vince S.	P_klinike
24/05/2024	9:00	11:15	v32 Gynaecologic Examination of pets	8E-3		2:15	Folnožic I.	V_porodništvo
24/05/2024	14:30	16:00	p26 Physiology and Pathology of the Puerperium 4	8E-1, 8E-2, 8E-3		1:30	Vince S.	P_klinike
27/05/2024	14:05	15:35	p27 Physiology and Pathology of the Udder 1	8E-1, 8E-2, 8E-3		1:30	Folnožic I.	P_klinike

Activities - Obstetrics and Reproduction 1 (7/7)

	Start T	End Ti	Subject	Group	Note	Length	Instructor	Room
28/05/2024	13:45	16:00	v33 Gynaecologic Examination of pets	8E-1, 8E-2		2:15	Vince S.	V_porodništvo
29/05/2024	7:30	9:00	p28 Physiology and Pathology of the Udder 2	8E-1, 8E-2, 8E-3		1:30	Špoljaric B.	P_fizika
29/05/2024	9:00	11:15	v33 Gynaecologic Examination of pets	8E-3		2:15	Vince S.	V_porodništvo
03/06/2024	15:10	16:40	p29 Physiology and Parhology of the Udder 3	8E-1, 8E-2, 8E-3		1:30	Grizelj J.	P_klinike
04/06/2024	9:45	12:00	v34 Gynaecological Examination of pets	8E-1, 8E-2		2:15	Špoljaric B.	V_porodništvo
04/06/2024	12:00	13:30	p30 Selected Topics	8E-1, 8E-2, 8E-3		1:30	Grizelj J.	P_klinike
Total: 93						198:00		

Timetable for LECTURES academic year 2023/2024

STUDENT OBLIGATIONS

Lecture attendance	By attending lectures the student gains 3-6 points (60 lecture hours; each lecture hour equals a 0,1 coefficient). Students must attend at least 30 lecture hours. Students are obliged to attend at least 30 lecture hours.
Seminars attendance	-
Practicals attendance	By attending practicals the student gains 8-12 points (105 exercise hours; each practicals hour equals a 0,11 coefficient). Students must attend at least 80 practicals hours. Students are obliged to attend at least 73 hours of practicals.
Active participation in seminars and practicals	<p>By attending lectures the student gains 3-6 points (60 lecture hours; each lecture hour equals a 0.1 coefficient). Students must attend at least 30 lecture hours. By attending practicals the student gains 8-12 points (105 exercise hours; each exercise hour equals a 0.11 coefficient). Students must attend at least 73 exercise hours.</p> <p>The activity at the exercises is evaluated with 5-10 points; the activity will be evaluated through the following:</p> <ol style="list-style-type: none">1) Participating in clinical work and the treatment of the patient (pets – dogs, cats, etc.), the student can gain a maximum of 20 points (taking a history, clinical examination of the animal, establishing a differential diagnosis, treatment options),2) Participating in clinical work and the treatment of the patient (farm animals - cows, horses, pigs, sheep, goats); the student can gain a maximum of 20 points (taking a history, clinical examination of the animal, establishing a differential diagnosis, treatment options),3) Evaluation of the collected semen (assessment of sperm motility, determination of sperm concentration and evaluation of sperm vitality), the student can gain a maximum of 30 points (the student independently performs the specified tests of the semen in order to create an evaluation report of the semen),4) Examination of the mammary gland of domestic animals, the student can get a maximum of 10 points (the student takes a history and independently performs an examination of the mammary gland, including an examination of obtained milk sample - examination on a black background, mastitis test),5) Artificial insemination of domestic animals, where the student can get a maximum of 10 points (the

Course Obstetrics and Reproduction 1

	<p>student will choose the domestic animal species, explain the procedure with male animals, methods of semen collection, the procedure of evaluating and preparing sperm doses, methods of synchronizing the sexual cycle and defining the optimal time for the insemination of females and methods of deposition of the semen),</p> <p>6) A short oral exam in order to check whether the student has prepared for the practicals; the student can gain a maximum of 10 points (the student can be assessed any time during the practicals in order to check if he/she has acquired the knowledge required to attend the practicals).</p>
Final exam	<p>Students' attendance of lectures and practicals as well as their active participation will regularly be monitored over the course of the entire semester.</p> <p>There will also be continuous knowledge-checking (progress test). The total points earned will be presented to the examiner at the final exam.</p> <p>In order to take the final exam, a student must earn a minimum of 16 points by attending lectures and practicals and through activities during practicals, and at least 20 points from continuous knowledge assessment.</p> <p>The final exam consists of 10 oral questions and in total brings up to 40 points (minimal 24 points is approval).</p> <p>The total sum of points achieved from the above-mentioned elements is expressed in the final mark (1 – 5), 1 being a fail.</p>
Examination requirements	<p>Student requirements are defined in the Regulations on the Integrated Undergraduate and Graduate Study of Veterinary Medicine (2022). 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; 30 % of the seminars and 30 % of the exercises.</p>

GRADING AND EVALUATING STUDENT WORK

Continuous knowledge-checking (mid-terms)	<p>There will be a progress test performed during the semester consisting of 32 questions and performed in written form.</p> <p>The progress test brings 32 points (each question equals a 1 point), 20 points being the minimum required to pass. Taking the progress test during the main term is compulsory (missing the main term needs to be justified).</p> <p>3 additional progress test terms will be announced, as per agreement with students.</p>
---	--

Course Obstetrics and Reproduction 1

	All four of the terms will be held in June and July (first term: 10 th of June 2023). Progress test is required in order to register for the final exam. However, the progress test is not a requirement for a signature in the grade book. If the student fails the progress test 4 times, he/she needs to take the whole course over again. In case he/she doesn't take the progress test or fails it 4 times, an additional term is possible if the student representative writes an official request to the respective Vice Dean. The Course leader makes the final decision.
Final exams (dates)	17/6/2024, 3/7/2024, 12/07/2024, 5/9/2024, 20/9/2024
Form of final exam	ORAL EXAM

LITERATURE

Obligatory literature	Lecture handouts by Merlin Selected chapters from: NOAKES, D. E., T. J. PARKINSON, G. C. W. ENGLAND (2018): Arthur's Veterinary Reproduction and Obstetrics, 10th Ed. (Noakes, D. E., T. J. Parkinson, G. C. W. England, Eds.), W. B. Saunders Company Ltd. GORDON, I. R. (1997): Controlled Reproduction in Pigs. (Gordon, E., Ed.), CAB International. SENGER, P. L. (2003): Pathways to Pregnancy and Parturition, 2 nd Ed., Cadmus Professional communications, Science Press Division, USA BLANCHARD, T. L. ET AL., (2003): Manual of Equine Reproduction. 2 nd Ed., Mosby. BSAVA Manual of Canine and Feline Reproduction and Neonatology, 2 nd Ed. 2019., (G. England, A. von Heimendahl, Eds.), British Small Animal Veterinary Association. Gloucester, UK JOHNSTON, S. D., M. V. ROOT KUSTRITZ, P. S. OLSON (2003): Canine and Feline Theriogenology, 2 nd Ed., Saunders Company Ltd., USA JACKSON, P. G. G. (2004): Handbook of Veterinary Obstetrics, 2 nd Ed. (Rodenhuis, J., Z. Youd, Eds.), Saunders W. B. Company. BALL, P. J. H., A. R. PETERS (2004): Reproduction in Cattle, 3 rd Ed. (Ball, P. J. H., A. R. Peters, Eds.), Blackwell Publishing Ltd, Oxford
Optional literature	Selected chapters from: BSAVA Manual of Canine and Feline Abdominal Surgery, 2 nd Ed. (2015), (Williams, J. M., J. D. Niles,

Eds.), BSAVA
LANDSBERG, G., W. L. HUNTHAUSEN, L. J. ACKERMAN (2012): Behavioural Problems of the Dog and Cat, 3rd Ed., Saunders Ltd.
MCKINNON, A. O. (2011): Equine Reproduction, 2nd Ed. (McKinnon, A. O., E. L. Squires, W. E. Vaala, D. D. Varner, Eds.), Lea and Febiger, USA
SAMPER, J. C. (2009): Equine Breeding Management and Artificial Insemination, 2nd Ed., (Gower, J., S. Stringer), Saunders, USA
The Merck Veterinary Manual (2010), 10th Ed., (Kahn, C. M., S. Line, Eds.), Merck & Co., Inc., USA
HAFEZ, E. S. E. (2013): Reproduction in Farm Animals. 7th Ed. (Hafez, E. S. E., B. Hafez, Eds.), Wiley-Blackwell, USA.
PUGH, D. G. (2002): Sheep and Goat Medicine. 1st Ed. (Pugh, D. G., Ed.), Saunders, USA
SMITH, M. C., D. M. SHERMAN (2009): Goat Medicine. 2nd Ed. Wiley-Blackwell, USA
SOLAIMAN, S. G. (2010): Goat Science and Production, (Solaiman, S. G., Ed.), Wiley-Blackwell
BOYD, J. S., C. PATERSON (2000): Colour Atlas of Clinical Anatomy of the Dog and Cat. 2nd Ed., Mosby Ltd.
HARKNESS, J. E., P. V. TURNER, S. VANDEWOUDE, C. L. WHEELER (2010): The Biology and Medicine of Rabbits and Rodents, 5th Ed., Wiley-Blackwell
BAKER, R., J. H. LUMSDEN (2000): Color Atlas of Cytology of the Dog and Cat, Mosby

OBJECTIVES AND LEARNING OUTCOMES


<p>Course objectives</p>	<p>Within the course framework, the students will get acquainted in detail with the hormonal regulation of the reproductive cycle of domestic animals, including phases, a clinical view of reproductive cycles and the artificial insemination of domestic animals. Students will also be thoroughly familiarized with oogenesis, the mechanism of ovulation, fertilization, nidation and placentation, as well as pregnancy, pregnancy diagnostics and pathology of pregnancy and the phases of parturition, physiology and pathology of puerperium, spermiology, and udders.</p>
<p>Learning outcomes</p>	<p>To be able to independently take the gynaecologic history and perform gynaecologic / andrological examinations (including udders) of female and male animals, including rectal palpation and ultrasound checking, in order to define the animal's reproductive status.</p> <p>To be able to timely perform artificial insemination, understand the principles of semen collection and insemination dose, and perform basic semen tests.</p> <p>To be able to properly assist labour and apply obstetrical methods in case of need.</p> <p>To check post-parturient animal and determine if the puerperium of the animal is running physiologically; and if not, to be able to assess the proper therapeutic approach.</p> <p>To assess general conditions at the farm level which influence optimal animal reproduction and milk production, overall animal production at the farm level, animal welfare and safety of animal products;</p> <p>to explain the neurohormonal regulation of sexual cycles of domestic animals;</p> <p>to independently perform andrologic and gynaecologic examinations of domestic animals;</p> <p>to clearly distinguish phases and clinical specificity of the sexual cycle of domestic animals;</p> <p>to apply proper methods of pregnancy diagnostics;</p> <p>to be acquainted with the physiology and pathology of puerperium;</p> <p>to be acquainted with the physiology and pathology of the mammary gland;</p> <p>to identify and explain the stages of parturition.</p>

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