

UNIVERSITY OF ZAGREB
 FACULTY OF VETERINARY MEDICINE
 Heinzelova 55
 Tel. +385 1 23 90 320
 Division: Clinicals
 Unit: Obstetrics and Reproduction
 E-mail of the course leader: jgrizelj@vef.hr
 Register no. of the organisational unit:

Zagreb, 05/09/2024

	
190601	REPUBLIKA HRVATSKA
Veterinarski fakultet u Zagrebu	
Primljeno:	05.09.2024
Klasifikacijska oznaka	Org. jed.
602-04/24-22/38	251-61-41/251-61-32;
Urudžbeni broj	Prilozi Vrijednost
251-61-22-24-44	0 -

COURSE SYLLABUS

Course name: Obstetrics and Reproduction 2

Academic year 2024/2025

Course leader: Full Prof. Juraj Grizelj
 Deputy course leader: Assoc. Prof. Branimira Špoljarić

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, Ivan Tomić, DMV

First day of classes: 14/10/2024

Last day of classes: 15/01/2025

Activities - Obstetrics and Reproduction II (1/6)

Start Date	Start T	End Ti	Subject	Group	Note	Length	Instructor	Room
14/10/2024	11:30	13:00	p01 Pathological labour and delivery 1	9E-1, 9E-2, 9E-3		1:30	Folnožić I.	P_kemija
15/10/2024	10:00	11:30	p02 Pathological labour and delivery 2	9E-1, 9E-2, 9E-3		1:30	Vince S.	P_fiziologija
16/10/2024	12:00	13:30	v01 Dystocia: the approach to an obstetric case	9E-2		1:30	Nastavnici na predmetu	V_porodništvo
16/10/2024	13:45	15:15	v01 Dystocia: the approach to an obstetric case	9E-3		1:30	Nastavnici na predmetu	V_porodništvo
17/10/2024	8:15	9:45	v01 Dystocia: the approach to an obstetric case	9E-1		1:30	Nastavnici na predmetu	V_porodništvo
17/10/2024	13:15	14:45	v02 Dystocia: aetiology, causes and treatment	9E-3		1:30	Nastavnici na predmetu	V_porodništvo
18/10/2024	8:15	9:45	v02 Dystocia: aetiology, causes and treatment	9E-2		1:30	Nastavnici na predmetu	V_porodništvo
18/10/2024	10:00	11:30	p03 Infertility in the mare 1	9E-1, 9E-2, 9E-3		1:30	Prvanović Babić N.	P_klinike
18/10/2024	12:00	13:30	v02 Dystocia: aetiology, causes and treatment	9E-1		1:30	Nastavnici na predmetu	V_porodništvo
21/10/2024	12:30	14:00	v03 Fetotomy and caesarean section	9E-3		1:30	Nastavnici na predmetu	V_porodništvo
22/10/2024	8:15	9:45	p04 Infertility in the mare 2	9E-1, 9E-2, 9E-3		1:30	Getz I.	P_klinike
22/10/2024	12:30	14:00	v03 Fetotomy and caesarean section	9E-2		1:30	Nastavnici na predmetu	V_porodništvo
23/10/2024	12:00	13:30	v03 Fetotomy and caesarean section	9E-1		1:30	Nastavnici na predmetu	V_porodništvo
24/10/2024	8:15	9:45	p05 Infertility in cattle 1	9E-1, 9E-2, 9E-3		1:30	Grizelj J.	P_kemija

Activities - Obstetrics and Reproduction II (2/6)

Start Date	Start T	End Ti	Subject	Group	Note	Length	Instructor	Room
24/10/2024	12:15	13:45	v04 Approach to Infertility - case study 1	9E-3		1:30	Nastavnici na predmetu	V_porodništvo
24/10/2024	14:00	15:30	v04 Approach to Infertility - case study 1	9E-2		1:30	Nastavnici na predmetu	V_porodništvo
25/10/2024	12:00	13:30	v04 Approach to Infertility - case study 1	9E-1		1:30	Nastavnici na predmetu	V_porodništvo
28/10/2024	8:00	9:30	v04 Approach to Infertility - case study 2	9E-3		1:30	Nastavnici na predmetu	V_porodništvo
28/10/2024	9:45	11:15	v04 Approach to Infertility - case study 2	9E-1		1:30	Nastavnici na predmetu	V_porodništvo
28/10/2024	11:30	13:00	v04 Approach to Infertility - case study 2	9E-2		1:30	Nastavnici na predmetu	V_porodništvo
28/10/2024	13:15	14:45	p06 Infertility in cattle 2	9E-1, 9E-2, 9E-3		1:30	Folnožić I.	P_klinike
29/10/2024	8:15	9:45	p07 Infertility in cattle 3	9E-1, 9E-2, 9E-3		1:30	Vince S.	P_kemija
29/10/2024	10:00	11:30	v06 Gynaecologic surgical operations 1	9E-2		1:30	Nastavnici na predmetu	V_porodništvo
29/10/2024	12:00	13:30	v06 Gynaecologic surgical operations 1	9E-1		1:30	Nastavnici na predmetu	V_porodništvo
30/10/2024	8:15	9:45	v06 Gynaecologic surgical operations 1	9E-3		1:30	Nastavnici na predmetu	V_porodništvo
30/10/2024	10:00	13:00	v10 Caslic's suture-case study	9E-1		3:00	Nastavnici na predmetu	V_porodništvo
04/11/2024	12:30	15:30	v10 Caslic's suture-case study	9E-2		3:00	Nastavnici na predmetu	V_porodništvo

Activities - Obstetrics and Reproduction II (3/6)

Start Date	Start T	End Ti	Subject	Group	Note	Length	Instructor	Room
05/11/2024	12:45	15:45	v10 Caslic's suture-case study	9E-3		3:00	Nastavnici na predmetu	V_porodništvo
07/11/2024	12:00	13:30	p08 Infertility in small ruminants	9E-1, 9E-2, 9E-3		1:30	Grizelj J.	P_fiziologija
19/11/2024	11:15	12:45	v07 Parturition related disorders	9E-3		1:30	Nastavnici na predmetu	V_porodništvo
19/11/2024	13:00	14:30	v07 Parturition related disorders	9E-1		1:30	Nastavnici na predmetu	V_porodništvo
20/11/2024	14:30	16:00	v07 Parturition related disorders	9E-2		1:30	Nastavnici na predmetu	V_porodništvo
21/11/2024	14:30	16:00	v08 Infertility in male animals	9E-2		1:30	Nastavnici na predmetu	V_porodništvo
22/11/2024	14:30	16:00	v08 Infertility in male animals	9E-3		1:30	Nastavnici na predmetu	V_porodništvo
25/11/2024	10:00	11:30	v08 Infertility in male animals	9E-1		1:30	Nastavnici na predmetu	V_porodništvo
26/11/2024	12:30	14:45	v09 Neonatology and emergency in neonatology	9E-1		2:15	Nastavnici na predmetu	V_porodništvo
27/11/2024	8:15	9:45	p09 Infertility in swine	9E-1, 9E-2, 9E-3		1:30	Grizelj J.	P_klinike
27/11/2024	10:00	12:15	v09 Neonatology and emergency in neonatology	9E-2		2:15	Nastavnici na predmetu	V_porodništvo
28/11/2024	14:30	16:45	v09 Neonatology and emergency in neonatology	9E-3		2:15	Nastavnici na predmetu	V_porodništvo
09/12/2024	13:30	15:00	p10 Infertility in cats and dogs	9E-1, 9E-2, 9E-3		1:30	Folnožić I.	P_klinike

Activities - Obstetrics and Reproduction II (4/6)

Start Date	Start T	End Ti	Subject	Group	Note	Length	Instructor	Room
10/12/2024	9:15	10:45	v11 The treatment of infertility in cattle	9E-3		1:30	Nastavnici na predmetu	V_porodništvo
10/12/2024	12:30	14:00	v11 The treatment of infertility in cattle	9E-1		1:30	Nastavnici na predmetu	V_porodništvo
10/12/2024	14:30	16:00	v11 The treatment of infertility in cattle	9E-2		1:30	Nastavnici na predmetu	V_porodništvo
12/12/2024	9:30	11:00	v12 gynaecologic surgical operations 2	9E-3		1:30	Nastavnici na predmetu	V_porodništvo
12/12/2024	11:15	12:45	v12 gynaecologic surgical operations 2	9E-1		1:30	Nastavnici na predmetu	V_porodništvo
13/12/2024	9:15	10:45	v12 gynaecologic surgical operations 3	9E-1		1:30	Nastavnici na predmetu	V_porodništvo
13/12/2024	11:15	12:45	v12 gynaecologic surgical operations 2	9E-2		1:30	Nastavnici na predmetu	V_porodništvo
17/12/2024	9:00	10:30	v12 gynaecologic surgical operations 3	9E-2		1:30	Nastavnici na predmetu	V_porodništvo
17/12/2024	11:00	12:30	v12 gynaecologic surgical operations 3	9E-3		1:30	Nastavnici na predmetu	V_porodništvo
19/12/2024	8:30	10:00	v12 gynaecologic surgical operations 4	9E-1		1:30	Nastavnici na predmetu	V_porodništvo
19/12/2024	10:30	12:00	v12 gynaecologic surgical operations 4	9E-3		1:30	Nastavnici na predmetu	V_porodništvo
19/12/2024	12:30	14:00	v12 gynaecologic surgical operations 4	9E-2		1:30	Nastavnici na predmetu	V_porodništvo
20/12/2024	8:30	10:00	p11 Mammary gland tumours 1	9E-1, 9E-2, 9E-3		1:30	Špoljarić B.	P_klinike

Activities - Obstetrics and Reproduction II (5/6)

Start Date	Start T	End Ti	Subject	Group	Note	Length	Instructor	Room
07/01/2025	10:00	11:30	v15 abortion case study	9E-3		1:30	Nastavnici na predmetu	V_porodništvo
07/01/2025	11:45	13:15	p12 Mammary gland tumours 2	9E-1, 9E-2, 9E-3		1:30	Špoljarić B.	P_fiziologija
08/01/2025	9:00	10:30	v15 abortion case study	9E-2		1:30	Nastavnici na predmetu	V_porodništvo
08/01/2025	10:45	12:15	v15 abortion case study	9E-1		1:30	Nastavnici na predmetu	V_porodništvo
09/01/2025	8:30	10:00	v16 mastectomy in bitch-case study	9E-1		1:30	Nastavnici na predmetu	V_porodništvo
09/01/2025	10:10	10:55	p13 Canine pregnancy termination	9E-1, 9E-2, 9E-3		0:45	Špoljarić B.	P_fiziologija
09/01/2025	10:55	11:40	p14 Neonatal disorders 1	9E-1, 9E-2, 9E-3		0:45	Prvanović Babić N.	P_fiziologija
09/01/2025	11:50	13:20	v16 mastectomy in bitch-case study	9E-2		1:30	Nastavnici na predmetu	V_porodništvo
09/01/2025	13:30	15:00	v16 mastectomy in bitch-case study	9E-3		1:30	Nastavnici na predmetu	V_porodništvo
10/01/2025	8:30	10:00	v17 the treatment of infertility in mare	9E-2		1:30	Nastavnici na predmetu	V_porodništvo
10/01/2025	10:10	11:40	p15 Neonatal disorders 2	9E-1, 9E-2, 9E-3		1:30	Prvanović Babić N.	P_klinike
10/01/2025	11:45	13:15	v17 the treatment of infertility in mare	9E-3		1:30	Nastavnici na predmetu	V_porodništvo
10/01/2025	13:30	15:00	v17 the treatment of infertility in mare	9E-1		1:30	Nastavnici na predmetu	V_porodništvo
13/01/2025	7:30	9:00	p16 Assisted reproduction	9E-1, 9E-2, 9E-3		1:30	Lojkić M.	P_fizika

Activities - Obstetrics and Reproduction II (6/6)

Start Date	Start T	End Ti	Subject	Group	Note	Length	Instructor	Room
13/01/2025	9:15	12:15	v18 Gynaecologic surgical operations 5; field course bjelovar	9E-1, 9E-2, 9E-3		3:00	Nastavnici na predmetu	V_porodništvo
14/01/2025	8:00	9:30	v19 Clinical approach to infertility 1	9E-3		1:30	Nastavnici na predmetu	V_porodništvo
14/01/2025	9:45	11:15	v19 Clinical approach to infertility 1	9E-2		1:30	Nastavnici na predmetu	V_porodništvo
14/01/2025	11:30	13:00	v19 Clinical approach to infertility 1	9E-1		1:30	Nastavnici na predmetu	V_porodništvo
15/01/2025	8:00	9:30	v20 Clinical approach to infertility 2	9E-2		1:30	Nastavnici na predmetu	V_porodništvo
15/01/2025	9:45	11:15	v20 Clinical approach to infertility 2	9E-3		1:30	Nastavnici na predmetu	V_porodništvo
15/01/2025	11:30	13:00	v20 Clinical approach to infertility 2	9E-1		1:30	Nastavnici na predmetu	V_porodništvo
Total: 74						117:45		

STUDENT OBLIGATIONS

Lecture attendance	By attending lectures the student gains 3-6 points (30 lecture hours; each lecture hour equals 0.2 coefficient). Students must attend at least 15 lecture hours.
Seminars attendance	-
Practicals attendance	By attending practicals the student gains 8-12 points (45 hours of practicals; each practicals hour equals 0.27 coefficient). Students must attend at least 32 hours of practicals.
Active participation in seminars and Practical	A minimum of 5 (max. 10) points must be gained during practicals. A student can obtain a maximum of 10 points and a minimum of 5 points from the activity. Students collect points by actively participating in the exercises, and can collect a maximum of 100 points, which are multiplied by a coefficient of 0.1, resulting in a maximum final score of 10 points, by completing the following tasks: 1. Practical work in the skills' lab is evaluated - obstetrical procedures for correcting irregular positions of the fetus, fetotomy and caesarean section. The student can earn a maximum of 40 points (a maximum of 8 points for correction of incorrect positions of the head, legs, situs and positions, placing incisions for fetotomy, suturing in caesarean section). 2. The properly assessed anesthesia protocols is evaluated, whereby the student can collect a maximum of 10 points. 3. Active participation in working with patients is evaluated, whereby the student can collect a maximum of 20 points (taking a history, the patient approach, setting differential diagnoses, treatment options). 4. The approach and treatment of the neonatological patient is evaluated, whereby the student can collect a maximum of 10 points. 5. Treatment of cases of infertility in domestic animals is assessed, whereby the student can receive a maximum of 20 points (treatment of cases of pyometra, neoplasia of the mammary gland, abortion, vulvoplasty, and caesarean section in dogs and cats, infertility of mares, cows, pigs and small ruminants). During the course, students are required to hand in forms about work in the skills' lab, and reports on patients admitted (instructions available on the Clinic's website and on the Merlin course system). Each completed form is assessed, scored and signed. The final sum of points is multiplied by a coefficient of 0.1.

	The earned points are rounded to the nearest whole number which represents the final student's score from the activity. Students must collect a minimum of 5 final points (50 points x coefficient 0.1), and a maximum of 10 final points from the activity. Students' activity during the exercises will be continuously monitored.
Final exam	Students' attendance of lectures and practicals as well as their active participation will regularly be monitored over the course of the entire semester. There will also be continuous knowledge-checking (progress test). The total points earned will be presented to the examiner at the final exam. 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. The final exam consists of 10 oral questions and in total brings up to 40 points (minimal 24 points is approval). The total sum of points achieved from the above-mentioned elements is expressed in the final mark (1 – 5), 1 being a fail.
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 and 30% of the practicals.

GRADING AND EVALUATING STUDENT WORK

Continuous knowledge-checking (mid-terms)	There will be a written progress test performed during the semester consisting of 10 questions. The progress test brings 32 points (each question equals 3.2 points), 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). 3 additional progress test terms will be announced for the progress test in agreement with students. All
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	four of the terms will be held in January and February. 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)	10/02/2025, 20/02/2025
Form of final exam	Oral exam

LITERATURE

Obligatory literature	Lecture handouts by LMS Selected chapters from: Noakes, D. E., T. J. Parkinson and G. C. W. England (2009): Veterinary Reproduction & Obstetrics, 9th edition. W. B. Saunders Company Ltd. Gordon, I. (1997): Controlled Reproduction in Pigs. CAB International. Blanchard, T. L. et al., (2003): Manual of Equine Reproduction. Mosby. Simpson, G. (2008): BSAVA Manual of Small Animal Reproduction and Neonatology. British Small Animal Association. Gloucester Johnston, S. D., M. V. Root Kustritz, P. S. Olson (2003): Canine and Feline Theriogenology. W. B. Saunders Company Ltd. Jackson, P. G. G. (2004): Handbook of Veterinary Obstetrics. W. B. Saunders Company Ltd.
Optional literature	Selected chapters from: BSAVA Manual of Canine and Feline Abdominal Surgery; Williams and Niles (eds.), BSAVA, 2005 Gary Landsberg, Wayne L. Hunthausen, Lowell J. Ackerman (2003): 5. Handbook of Behavioural Problems of the Dog and Cat, W. B. Saunders Company. McKinnon A. O. (1993): Equine Reproduction, Lea and Febiger. Samper J. C. (2000): Equine Breeding Management and Artificial Insemination. W. B. Saunders Company. The Merck Veterinary Manual 10th edition (2010): Merck & CO. Hafez (1993): Reproduction in Farm Animals. Lea and Febiger. Pugh (2002): Sheep and Goat Medicine. W. B. Saunders Company. Smith and Sherman (2009): Goat Medicine. Wiley Blackwell. Solaiman (2010): Goat Science and Production. Wiley Blackwell. Paterson, B. (2001): Colour Atlas of Clinical Anatomy of the Dog and Cat, Mosby. Baker, L. (2000): Colour Atlas of Cytology of the Dog and Cat, Mosby

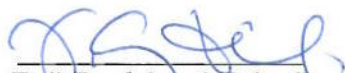
OBJECTIVES AND LEARNING OUTCOMES

Course objectives	The aim of the course "Obstetrics and reproduction 2" enables future doctors of veterinary medicine to acquire competences with which they will be able to diagnose pathological conditions on the ovaries and their treatment, pathological conditions in pregnancy as well as those that arise during parturition, and to adequately provide assistance to the parturient animal and the fetus and this way to preserve the life of the fetus and the parturient animal.
Learning outcomes	- to explain the causes, clinical picture, diagnostic methods and therapy for irregular ovarian function in domestic animals; - to relate the impact of feeding and keeping animals on their reproduction; - to explain the causes, clinical picture, diagnostic methods and therapy in inflammatory conditions of uterus; - to explain the pathology of parturition, obstetrical and/or gynaecological surgery as a method of therapeutic approach. - to distinguish congenital and acquired abnormalities of the reproductive organs that could cause infertility; - to independently choose a method of assisting the parturient animal and fetus

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:


Full Prof Juraj Grizelj

Head of Department/Clinic:


Full Prof Tugomir Karadjole

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
PRACTICALS**

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
EXERCISES**

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

