



Reproduction and obstetrics of horses I

ECTS: 2.00

SUBJECT MATTER CONTENT

LECTURE

Lectures are divided into thematic blocks, beginning with a discussion of the specifics of breeding processes in mares resulting from differences in anatomy and physiology, season, between pregnancies and elevated early pregnancy losses. Next, issues of heat and ovulation are discussed, followed by the methods of their synchronization and induction, ovarian disorders and hormonal treatment. The next block is devoted to problems with uterus dysfunction- diagnosis and treatment. The third block involves conception, pregnancy and pregnancy loss, and physiology and pathology of parturition. This section complements the lectures about mammary gland diseases and neonatal care of the foal and as a conclusion forensic issues connected with horse reproduction.

AUDITORIUM CLASSES

Exercise classes are led parallel to lectures to complement them in practical usage of knowledge about gynaecological and obstetric disorders in mares. It begins with knowledge of the plans and schemes of gynaecological examination and diagnosis of pregnancy in the mare. Firstly those plans are implemented on isolated organs and then on living animals. During the first classes, students have the opportunity to repeat information on the anatomy and physiology of reproductive organs. During the following classes, students perform clinical, sonographic, cytological and microbiological examinations of the genital tract of the mare. They learn the ways of uterus catheterisation, intrauterine administration of drugs, removing the contents of the uterus and using hysteroscopy to diagnose the pathological stages of the endometrium. The program includes some surgical treatment on the vulva and perineum as well as local anaesthesia. Conservative and surgical solving of dystocia (fetotomy) are trained on phantom and then on stillborn foals to give the students an idea about the reality during the parturition in mare. Students receive knowledge about neonatal foal care.

PRACTICAL CLASSES

Exercise classes are led parallel to lectures to complement them in practical usage of knowledge about gynaecological and obstetric disorders in mares. It begins with knowledge of the plans and schemes of gynaecological examination and diagnosis of pregnancy in the mare. Firstly those plans are implemented on isolated organs and then on living animals. During the first classes, students have the opportunity to repeat information on the anatomy and physiology of reproductive organs. During the following classes, students perform clinical, sonographic, cytological and microbiological examinations of the genital tract of the mare. They learn the ways of uterus catheterisation, intrauterine administration of drugs, removing the contents of the uterus and using hysteroscopy to diagnose the pathological stages of the endometrium. The program includes some surgical treatment on the vulva and perineum as well as local anaesthesia. Conservative and surgical solving of dystocia (fetotomy) are trained on phantom and then on stillborn foals to give the students an idea about the reality during the parturition in mare. Students receive knowledge about neonatal foal care.

TEACHING OBJECTIVE

The aim of this subject is to teach students about the physiology and pathology of mare.

Legal acts specifying learning outcomes:
682/2020
Disciplines: Veterinary science
Status of the course: Obligatoryjny
Group of courses: B - przedmioty kierunkowe
Code: ISCED 0841
Field of study: Veterinary Medicine
Scope of education:
Profile of education: General academic
Form of studies: full-time
Level of studies: uniform master's studies
Year/semester: 4/8

Types of classes: Lecture, Practical classes, Auditorium classes
Number of hours in semester: Lecture: 20.00, Practical classes: 10.00, Auditorium classes: 15.00
Language of instruction: Polish
Introductory subject: anatomy, physiology, pathophysiology, breeding horses
Prerequisites: knowledge of the anatomy and physiology of the mare's reproductive system, as well as the general pathophysiology and breeding of horses

Name of the organisational unit conducting the course: Katedra Rozrodu Zwierząt z Kliniką
Person responsible for the realization of the course: dr hab. wet. Anna Rapacz-Leonard, prof. UWM
e-mail: anna.rapacz@uwm.edu.pl

Additional remarks:

DESCRIPTION OF THE LEARNING OUTCOMES OF THE COURSE IN RELATION TO THE DESCRIPTION OF THE CHARACTERISTICS OF THE SECOND LEVEL LEARNING OUTCOMES FOR QUALIFICATIONS AT LEVELS 6-8 OF THE POLISH QUALIFICATION FRAMEWORK IN RELATION TO THE SCIENTIFIC DISCIPLINES AND THE EFFECTS FOR FIELDS OF STUDY:

Symbols for outcomes related to the discipline:

R/WA_P7S+++

Symbols for outcomes related to the field of study:

K.1.+ , B.U12. +, A.W10. +, A.U14. +, A.W12. +, A.U16. +, B.U14. +, B.W12. +, A.W13. +, C.U2. +, K.8.+ , A.W15. +, A.U11. +, A.W4. +, B.W7. +, B.W9. +, A.U6. +, K.10.+ , B.W13. +, A.W9. +, B.W2. +, B.W3. +, B.U4. +, B.W1. +, K.2.+ , A.W1. +, B.W5. +, B.U21. +, A.W3. +, A.W17. +, B.U1. +, B.U6. +, B.U5. +, A.U13. +, A.U7. +, A.W20. +, B.U3. +, K.4.+ , B.W6. +, B.W11. +, K.5+ , C.W3. +, A.U19. +, B.U7. +, A.W2. +, A.U17. +, B.U2. +, A.W14. +, A.U18. +, B.U10. +, B.U11. +, B.U13. +, K.9.+ , A.W11. +, A.U12. +, B.W4. +, B.U15. +, A.U4. +, B.W8. +

LEARNING OUTCOMES:

Knowledge:

W1 – The student is able to define and discuss the structure and function of the reproductive tract, taking into account the specificity of horse reproduction. He/she knows the diseases of the female reproductive system, clinical and laboratory methods of diagnosing their disorders, and combating infertility. He knows the theoretical basis of the methods of biotechnology of reproduction.

Skills:

U1 – The student has the ability to diagnose and treat disorders of the female reproductive system, recognise and combat infertility, apply basic methods of reproductive biotechnology and diagnose pregnancy.

Social competence:

K1 – The student follows the principles of veterinary deontology, adheres to the principles of animal welfare. Demonstrates the ability to cooperate with animal owners, has the ability to advise and discuss current veterinary aspects.

TEACHING FORMS AND METHODS:

Lecture(W1;K1;):Presentations

Auditorium classes(W1;K1;):Presentations

Practical classes(U1;K1;):Practical classes on isolated organs and teaching animals, field exercises in a horse farm

FORM AND CONDITIONS OF VERIFYING LEARNING OUTCOMES:

Lecture (Colloquium test) - The content of the lectures is included in the colloquiums of the auditorium exercises and in the exam after the end of the second part of the subject (Reproduction and obstetrics of horses II). -

Practical classes (Colloquium practical) - There is one practical test per semester, during which the ability to perform a gynaecological examination with additional tests is assessed. Additionally, the student will have to make a diagnosis and present therapeutic proposals. In the event of a top-down suspension of classroom activities and the necessity of distance learning, the methods of verifying the achievement of learning outcomes, and thus the forms of completing the exercises, declared in the syllabus, may be changed in a manner appropriate to the situation. -

Auditorium classes (Colloquium test) - There are 2 written tests per semester. The test mark is issued on the basis of the arithmetic mean value of the marks obtained for each question. The student may attempt to correct the test twice. The condition for receiving the final pass from the subject is to obtain positive marks from all tests taking place in the course of the subject. In the case of passing all the tests, the final grade for the subject is issued on the basis of the arithmetic mean value of all the grades obtained in the tests. Failure to pass

any of the tests is tantamount to obtaining an unsatisfactory final grade from the subject. In the event of a top-down suspension of classroom activities and the necessity of distance learning, the methods of verifying the achievement of learning outcomes, and thus the forms of completing the exercises, declared in the syllabus, may be changed in a manner appropriate to the situation. -

BASIC LITERATURE:

1. Kosiniak-Kamysz K., Wierzbowski S., *Rozród koni*, Wyd. Drukrol w Krakowie, R. 2004
2. Jackson Peter G.G., *Położnictwo Weterynaryjne*, Wyd. Elsevier, R. 2004
3. Bielański W., *Rozród zwierząt*, Wyd. PWRiL, R. 1979
4. Dietz O., Huskamp B., *Praktyka kliniczna: konie*, Wyd. Galaktyka, R. 2008

SUPPLEMENTARY LITERATURE:

1. Blanchard, Terry i wsp., *Manual of Equine Reproduction*, Wyd. Mosby, R. 2003
2. Angus O. McKinnon i wsp., *Equine Reproduction, 2nd Edition (2 tomy)*, Wyd. Wiley-Blackwell, R. 2011
1. <https://www.ivis.org/library/recent-advances-equine-reproduction>

