



SZKOŁA GŁÓWNA
GOSPODARSTWA
WIEJSKIEGO

Ultrasound diagnostics of the reproductive tract in farm animals

Educational subject description sheet

Basic information

Field of study Veterinary Medicine	Didactic cycle 2023/24
Speciality -	Subject code WETFVMS_D.5400.01827.23
Organizational unit Faculty of Veterinary Medicine	Lecture languages english
Study level long-cycle	Mandatory Elective subjects
Study form full-time studies	Block Major subjects
Education profile General academic	Disciplines Veterinary medicine
Coordinator	Bartosz Pawliński
Teacher	Bartosz Pawliński
Period Semester 11	Examination Pass with grade
	Activities and hours Lecture: 4 Laboratory exercises: 6 Field exercises: 20
	Number of ECTS points 2

Goals

Code	Goal
C1	Clinical classes include elements of ultrasound technique in relation to the physiology and pathology of the female reproductive system of farm animals. Clinical exercises include clinical assessment on isolated organs of physiological and pathological conditions of the reproductive system of farm animals using the method of ultrasound.

Entry requirements

Students has a positive assessment of the module Livestock diseases

Subject's learning outcomes

Code	Outcomes in terms of	Effects	Examination methods
Knowledge - Student knows and understands:			
W1	the operation of the ultrasound apparatus.	B.W6	Test (written or computer based), Assessment of activity during classes
W2	the procedure of ultrasound examination of the reproductive system in farm animals	B.W4, B.W5	Test (written or computer based), Assessment of activity during classes
Skills - Student can:			
U1	supports the ultrasound device itself	B.U7	Assessment of activity during classes
U2	independently diagnose the reproductive tract and determine the clinical condition	B.U3	Assessment of activity during classes
Social competences - Student is ready to:			
K1	work in a team,	KS.10, KS.3	Assessment of activity during classes
K2	Independently makes clinical diagnosis	KS.4, KS.5	Assessment of activity during classes

Study content

No.	Course content	Subject's learning outcomes	Activities
1.	During the course, students learn about the principles of ultrasound, construction of ultrasound equipment, selection of the appropriate probe for the test, the principle of ultrasound examination of the reproductive system in farm animals, standards ultrasound examination in relation to the reproductive system, interpretation of sonograms, interpretation of artefacts.	W1, W2	Lecture
2.	Examination of the bovine reproductive system (ovaries and uterus) on isolated organ. Examination of the pig's reproductive tract (ovaries and uterus) on isolated organs. Ultrasound clinical examination of the reproductive system in farm animals, clinical case analysis and management - fieldwork.	U1, U2, K1, K2	Laboratory exercises, Field exercises

Course advanced

Activities	Methods of conducting classes
Lecture	Lecture, E-learning - lecture part

Activities	Methods of conducting classes
Laboratory exercises	Case study, Discussion, Teamwork, Individual work, Interpreting the results, Field measurements, Field observations
Field exercises	Case study, Discussion, Teamwork, Individual work, Field measurements, Field observations

Activities	Examination method	Percentage
Lecture	Test (written or computer based)	50%
Laboratory exercises	Assessment of activity during classes	25%
Field exercises	Assessment of activity during classes	25%

Activities	Credit conditions
Lecture	Theoretical test, written one or multiple choice test. The second test date is in the same form. Scoring for the written test: 61-69% - (3.0) 70-76% - (3.5) 77-84% - (4.0) 85-92% - (4.5) 93-100% - (5.0) 20% of absence is allowed in accordance with the study regulations. No extra assessment methods are anticipated. In case of unforeseen, unusual circumstances mandatory remote teaching and remote assessment methods might be adopted.
Laboratory exercises	The basis for passing the elective is attendance and active participation in the implementation of the curriculum, the correct implementation of all techniques presented. Knowledge of the theoretical basis in relation to physiology and pathophysiology of the reproductive system of farm animals
Field exercises	The basis for passing the elective is attendance and active participation in the implementation of the curriculum, the correct implementation of all techniques presented. Knowledge of the theoretical basis in relation to physiology and pathophysiology of the reproductive system of farm animals

Literature

Obligatory

1. Large Animal Theriogenology. R.F. Youngquist, W.L. Threlfall. 2nd ed. Saunders, Elsevier. 2007
2. Theriogenology
3. Animal Reproduction Science
4. Reproduction of Domestic Animals

Calculation of ECTS points

Activity form	Activity hours*
Lecture	4
Laboratory exercises	6

Field exercises	20
Self-study on the content covered in class	15
Preparation for the test	15
Student workload	Hours 60
Number of ECTS points	ECTS 2

* hour means 45 minutes

Effects

Code	Content
KS.3	Absolwent jest gotów do udziału w rozwiązywaniu konfliktów, a także wykazywania się elastycznością w reakcjach na zmiany społeczne
KS.4	Absolwent jest gotów do korzystania z obiektywnych źródeł informacji
KS.5	Absolwent jest gotów do formułowania wniosków z własnych pomiarów lub obserwacji
KS.10	Absolwent jest gotów do działania w warunkach niepewności i stresu
B.U3	Absolwent potrafi przeprowadzać pełne badanie kliniczne zwierzęcia
B.U7	Absolwent potrafi stosować aparaturę diagnostyczną, w tym radiologiczną, ultrasonograficzną i endoskopową, zgodnie z jej przeznaczeniem i zasadami bezpieczeństwa dla zwierząt i ludzi oraz interpretować wyniki badań uzyskane po jej zastosowaniu
B.W4	Absolwent zna i rozumie zasady postępowania diagnostycznego, z uwzględnieniem diagnostyki różnicowej, oraz postępowania terapeutycznego
B.W5	Absolwent zna i rozumie zasady przeprowadzania badania klinicznego i monitorowania stanu zdrowia zwierząt
B.W6	Absolwent zna i rozumie sposób postępowania z danymi klinicznymi i wynikami badań laboratoryjnych i dodatkowych