



SZKOŁA GŁÓWNA  
GOSPODARSTWA  
WIEJSKIEGO

## Ultrasound diagnostics of the reproductive tract in farm animals

### Educational subject description sheet

#### Basic information

<b>Field of study</b> Veterinary Medicine	<b>Didactic cycle</b> 2023/24
<b>Speciality</b> -	<b>Subject code</b> WETFVMS_D.5400K.633d37ece4c23.23
<b>Organizational unit</b> Faculty of Veterinary Medicine	<b>Lecture languages</b> english
<b>Study level</b> long-cycle	<b>Mandatory</b> Elective subjects
<b>Study form</b> full-time studies	<b>Block</b> Major subjects
<b>Education profile</b> General academic	<b>Disciplines</b> Veterinary medicine
<b>Coordinator</b>	Bartosz Pawliński
<b>Teacher</b>	Bartosz Pawliński
<b>Period</b> Semester 11	<b>Examination</b> Pass with grade
	<b>Activities and hours</b> Lecture: 4 Laboratory exercises: 6 Field exercises: 20
	<b>Number of ECTS points</b> 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
<b>Knowledge - Student knows and understands:</b>			
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
<b>Skills - Student can:</b>			
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
<b>Social competences - Student is ready to:</b>			
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

<b>Activities</b>	<b>Methods of conducting classes</b>
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

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

<b>Activities</b>	<b>Credit conditions</b>
Lecture	<p>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.</p>
Laboratory exercises	<p>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</p>
Field exercises	<p>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</p>

## 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

<b>Activity form</b>	<b>Activity hours*</b>
Lecture	4
Laboratory exercises	6

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