Syllabus

| Module title: | Ultrasound diagnostics of the reproductive tract in farm animals | ECTS | 2 |
|---|---|---|---|
| Polish translation: | Diagnostyka ultrasonograficzna układu rozrodczego u zwierząt gospodarskich | | |
| Course: | **Veterinary Medicine** | | |

| Module language: | English | | Stage: | JM |
|---|---|---|---|---|
| Form of studies: ■ intramural ☐ extramural | Type of module: ☐ basic ■ directional ☐ accessory ☐ rotation ☐ summer practice | ☐ mandatory ■ elective | Semester: …11 Year 6 | ■ winter semester ☐ summer semester |
| | | Academic year: **2019/2020** | Catalogue number: | FVM-V-JMSS-11W-E39_19 |

| Module coordinator: | dr hab. Bartosz Pawliński, prof. SGGW |
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| Teachers responsible for the module: | Academic teachers of the Institute of Veterinary Medicine; Department of Large Animal Diseases with Clinic; PhD students in accordance to the internal legal acts; visiting professors; other specialists in the field of study |
| Unit responsible for the module: | Institute of Veterinary Medicine; Department of Large Animal Diseases with Clinic |
| Faculty in charge: | Faculty of Veterinary Medicine |
| Objectives of the module: | Program consists of lectures and practical exercises from farm animal reproduction ultrasound diagnostics. Lectures include theoretical explanation of ultrasound imaging technics in physiology and pathology of female reproductive tract in farm animals. Classes include using ultrasound to diagnose physiological and pathological status of reproductive organs of farm animals. Isolated organs will be used. During field workshops students will be using ultrasound for clinical diagnosis of reproductive tract in living farm animals. During the course students gain knowledge and practical abilities |
| Teaching forms, number of hours: | a) Lectures: 4 h b) Clinical exercises: 26 h |
| Teaching methods: | Oral presentation with audio-visual techniques e.g. videos, 3D animated visualization or other multimedia presentation types with practical training on isolated organs and phantoms. Training in the diagnosis and therapy of diseases in slaughter-house and field clinics. |
| Formal prerequisites and initial requirements: | Animal anatomy modules 1-2, Topographic anatomy, Animal physiology modules 1-2, Biophysics, Farm animal diseases, Equine diseases, Diagnostic imaging Student should know basics of USG technique, understand topology and diseases of the female reproductive tract in large animals. |
| Learning outcomes: | Knowledge: …………………… …………………… | Skills: ability to choose a proper USG equipment basic and detailed clinical examination of the reproductive tract both manually and by ultrasound ability to interpret USG images presenting normal ovaries and uterus ability to interpret USG images presenting pathologic status of ovaries and uterus ability to maintain animal welfare during ultrasound examination that is non invasive ability to recognize abnormalities on the USG images | Competences: …………………… …………………… |
| Assessment methods: | 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 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. |
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| Formal documentation of learning outcomes: | Exam papers, grade in eHMS |
| Elements impelling final grade: | To verify the learning outcomes: 1. attendance at exercises 50% 2. exam grade 50%. |
| Teaching base: | Farms, University clinic and field clinics |

Mandatory and supportive materials :
Textbooks:
1. Large Animal Theriogenology. R.F. Youngquist, W.L. Threlfall. 2nd ed. Saunders, Elsevier. 2007
2. Wolfgang Kähn, Dietrich Volkmann, Robert Kenney  Veterinary Reproductive Ultrasonography , 2004
3. M.A.M. Taverne, A.H. Willemse  Diagnostic Ultrasound and Animal Reproduction 2013
Journals:
Theriogenology, Animal Reproduction Science, Reproduction of Domestic Animals, Biology of Reproduction, Reproduction, Molecular Reproduction and Development, Reproductive Biology, Cloning, Archives of Andrology, International Journal of Andrology, Life Veterinary, Veterinary Medicine

ANNOTATIONS

Quantitative summary of the module:

| Estimated number of work hours per student (contact and self-study) essential to achieve presumed learning outcomes of the module - base for quantifying ECTS: | …30……. h |
|---|---|
| Total ECTS points, accumulated by students during contact learning: | …1…. ECTS |

Learning outcomes of the module relative to the learning outcomes of the subject:

| Outcome category | Learning outcomes: | Learning outcomes relative to the course outcomes | Impact on the course outcomes*) |
|---|---|---|---|
| Skills- | ability to choose a proper USG equipment | K_KP5, U_PUZ7, U_PUZ13 | 3 |
| Skills | basic and detailed clinical examination of the reproductive tract both manually and by ultrasound | U_PUZ1, U_PUZ2, U_PUZ3, K_KP2 | 3 |
| Skills | ability to interpret USG images presenting normal ovaries and uterus | U_PUZ7 | 3 |
| Skills | ability to interpret USG images presenting pathologic status of ovaries and uterus | U_PUZ7 | 3 |
| Skills - | ability to maintain animal welfare during ultrasound examination that is non invasive | U_PUZ2, U_PUZ13, U_PUZ17 | 3 |
| Skills | ability to recognize abnormalities on the USG images | U_OUZ10, U_OUZ14, U_OUZ7 | 3 |
| Competences - | | | |
| Competences - | | | |

*)

3 – Significant and detailed,

2 – Partial,

1 – Basic,