

## Syllabus

Module title:	Advanced Equine Reproduction	ECTS	2
Polish translation:	Zaawansowane techniki rozrodu koni		
Course:	Veterinary Medicine		

Module language:	English	Stage: JM-FVM	
Form of studies:	<input checked="" type="checkbox"/> intramural <input type="checkbox"/> extramural	Type of module:	<input type="checkbox"/> basic <input type="checkbox"/> mandatory <input checked="" type="checkbox"/> directional <input checked="" type="checkbox"/> elective
		Semester: 11	<input checked="" type="checkbox"/> winter semester <input type="checkbox"/> summer semester
		Academic year: 2023/2024	Catalogue number:

Module coordinator:	dr hab. Bartosz Pawliński		
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:	<p>Lectures (45min each- once for all the students):</p> <p>Mare:</p> <p>LEC 1: Review of anatomy-physiology of mare</p> <p>LEC 2: Novel techniques in breeding management</p> <p>LEC 3: Infertility in mare I</p> <p>LEC 3: Infertility in mare II– case studies</p> <p>LEC 4: Review of pregnancy and abortion, pre- and post-partum problems based on clinical cases</p> <p>Stallion:</p> <p>LEC 6: Stallion anatomy and physiology, breeding soundness exam</p> <p>LEC 7: Stallion infertility – case studies</p> <p>ART:</p> <p>LEC 8: Management of Embryo Donors</p> <p>LEC 9: Embryo Collection Procedures</p> <p>LEC 10: Evaluation of Equine Embryos</p> <p>LEC 11: Recipient Mare Management</p> <p>LEC 12: Transfer of Equine Embryos</p> <p>LEC 13: Cooled-Transported Embryos and semen</p> <p>LEC 14: Problems Encountered in Equine Embryo Transfer</p> <p>LEC 15: Embryo Vitrification</p> <p>LEC 16: TVA/OPU – Making embryo in labs</p> <p>Laboratories (1.5hr each- repeated in small groups)</p> <p>Lab 1: Stallion handling and semen collection</p> <p>Lab 2: Semen analysis including novel systems</p> <p>Lab 3: Breeding dose preparation and semen freezing</p> <p>Lab 4: Donor mare management</p> <p>Lab 5: Embryo collection</p> <p>Lab 6: Embryo manipulation and packaging</p> <p>Lab 7: Embryo vitrification</p>		
Teaching forms, number of hours:	<p>a) Lectures – 16 hours</p> <p>b) Clinical laboratories - 14 hours;</p>		
Teaching methods:	<p>Students will work in a team during classes. During the classes, films, presentations, preparations, equipment, milking machines and computer programs will be presented. Selected clinical cases will be analysed.</p> <p>Consultations for students 1h / week.</p> <p>Detailed schedule will be defined by the coordinator of the course at the beginning of semester.</p> <p>Detailed organization of consultations will be defined by the coordinator of the course at the beginning of semester.</p>		
Formal prerequisites and initial requirements:	Students has a positive assessment of the module Livestock diseases		
Learning outcomes:	<p>Knowledge:</p> <p>The student establishment of normal and abnormal reproductive function in stallion and mare and a advanced techniques of reproduction in horses.</p>	<p>Skills:</p> <p>The student can make a clinical</p>	<p>Competences:</p> <p>Able to work in a team, makes a diagnosis independently, Good communication with the animal owner/keeper, Support for animal welfare</p>

Assessment methods:	The basis for completing the course is the presence and active participation in the implementation of the curriculum, the correct implementation of all the procedures presented. Strategies for controlling and preventing mastitis in the herd 20% of absence is allowed in accordance with the study regulations. 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) No extra assessment methods are anticipated. In case of unforeseen, unusual circumstances mandatory remote teaching and remote assessment methods might be adopted.
Formal documentation of learning outcomes:	eHMS entry. Records collected in the course portfolio i.e. individual records of student results, presence lists, database of oral and written questions, written assessments of the students.
Elements impelling final grade:	To verify the learning outcomes: 1. attendance at exercises 50% 2. exam grade 50%
Teaching base:	Infrastructure of the Department of Large Animal Diseases with Clinics (classrooms, ambulatory)
Mandatory and supportive materials :	..... Relevant scientific publications, including those of the module coordinator.
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:					<b>50 h</b>
Hours theoretical:	16	Hours practical:	14	Hours of field exercises:	<b>Total contact hours: 30</b>
Total ECTS points, accumulated by students during contact learning:					<b>1 ECTS</b>

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*)
Knowledge -	The student follows the rules of clinical evaluation and animal health monitoring;	B.W.5	3
Knowledge -	The student correctly assesses conditions of animal welfare;	B.W.9	3
Skills -	The student has the ability to interpret the results of additional methods of diagnosis of horse infertility	B.U.7	3
Skills -	The student has the ability to apply adequate methods of horse reproduction methods	B.U.3	3
Competences -	The student is ready to work in a team; Good communication with the animal owner / keeper	KS.3; KS.10	3
Competences -	Independently makes clinical diagnosis	KS.4; KS.5	3