Module title:	Equine Diseases	ECTS	12
Polish translation:	Choroby koni		
Course:	**Veterinary Medicine**		

Module language: English		Stage: JM-FVM	
Form of studies: ■ intramural ☐ extramural	Type of module: ☐ basic ☒ directional ☒ mandatory ☐ elective	Semester: 08	☐ winter semester ☒ summer semester
Academic year:	**Intake 2022/2023**	Catalogue number:	**FVM-JMSS-V-08S-D16_22**

Module coordinator:	**dr hab. Bartosz Pawliński, prof. SGGW**
Teachers responsible for the module:	**Academic teachers of the Institute of Veterinary Medicine; Department of Large Animal Diseases and Clinic; PhD students in accordance to the internal legal acts; visiting professors; other specialists in the field of study**
Course Description:	Program includes lectures and practical exercises from equine reproduction, surgery, internal medicine and infectious diseases. During the course students gain knowledge and practical skills from all four disciplines. Program of the course includes presentation and use of diagnostic and treatment methods of most common internal, surgical, infectious, reproductive tract diseases and disorders. The aim is to provide knowledge on the aetiology and pathogenesis of equine diseases requiring surgical, internal or obstetrical treatment, teach to perform clinical diagnosis and examination and apply proper therapeutical procedures.
Teaching forms, number of hours:	a) Lectures: 60 h b) Exercises : 120 h
Teaching methods:	Oral presentations with audio-visual techniques e.g. videos, 3D animated visualizations or other multimedia presentation types with practical training on isolated organs and phantoms, training in the diagnosis and therapy of diseases in slaughter-houses and clinics, flocks and studs, on university owned teaching mares, clinical patients and production animals. The course is conducted with the use of multimedia techniques, e.g. computer programs, videos, computer presentations.
Formal prerequisites and initial requirements:	Animal physiology modules 1-2, Animal anatomy modules 1-2, Histology and embryology modules 1-2, Veterinary pharmacology modules 1-2, Pathomorphology modules 1-3, Diagnostic imaging, Clinical and laboratory diagnostics modules 1-2, General surgery and anesthesiology, Veterinary epidemiology, Parasitology and invasiology modules 1-2, Immunology, Biochemistry modules 1-2, Veterinary microbiology modules 1-2

Learning effects		Course outcomes:	Learning outcomes relative to the course outcomes	Impact on the course outcomes*
Knowledge:	1	executes anamnesis with the aim of gathering detailed information about single animal, stud and their environment	B.W.2, B.W.20, B.W.21	2
	2	executes clinical examination with the focus on reproductive tract, musculoskeletal system, digestive tract, urogenital system, respiratory system both manually and with the of use appropriate additional methods e.g. instruments and utensils	B.U.2, B.U.20, B.U.21	3
	3	knows proper methods and instruments to diagnose infectious diseases, reproductive tract disorders, internal diseases, and disorders requiring surgical intervention	B.W.8	3
Skills:	1	knows how to prescribe and use drugs, medical materials and vaccines according to legal regulations and rules of their safe storage and utilization; provides clinical documentation of each patient	B.U.10, B.U.13, B.U.21	2
	2	prepares evidence and documentation; uses existing files correlated with heard health, animal welfare and herd productivity	A.U.20	2
	3	creates clear documentation of clinical cases according to current legal regulations in the form that can be easily understood by other veterinarians or owners	A.U.20	3
	4	knows procedures in case of infectious diseases outbreak and when animal is suspected of notifiable infectious disease	B.U.19	2
Competences:	1	The student is able to perform differential diagnosis of diseases of horses	K.S.1, K.S.2, K.S.4, K.S.5	3
	2	The student is able to apply proper prevention of animal diseases	K.S.1, K.S.2, K.S.4, K.S.5	3
	3	The student is able to implement proper treatment of infected animals	K.S.1, K.S.2, K.S.4, K.S.5, K.S.7	3

	4	The student is able to eradicate infectious diseases in accordance with legal regulations	K.S.1, K.S.2, K.S.4, K.S.5, K.S.11	3
	5	The student is aware of having knowledge, understands the necessity of consultancy and is prepared to share the competencies with the veterinary team and the animal's owner,	KS.1; KS.2; KS.3; KS.4; KS.7; KS.8; KS.9 KS.5; KS.6	3

Objectives of the module required to obtain learning effects:	The course will provide knowledge and practical skills in regards to: - Internal diseases, including disorders of excretory system, nervous system, cardiovascular system, respiratory system, alimentary system, skin problems, endocrinology and haematology. All topics will include following aspects: data collection and animal description, clinical examination, differential diagnostics, additional tests, diagnosis and therapy; - General and specific surgery, including anaesthesiology, diagnostics of problems requiring surgical therapy approach, pre- and post-surgery management of animals; - Etiopathogenesis, epidemiology, symptomatology, diagnostics, differential diagnostics, spread control and prevention of infectious diseases, including bacteria, virus and fungi based diseases; law-regulated diseases - equine reproduction The content of the lectures supplements the content of the laboratory classes. Detailed objectives of each individual course are described in module descriptions dedicated to this course.
Assessment methods:	Practicals: oral/written, theory/practice tests from classes. Lectures: oral/written exam and practical exam In case of unforeseen, unusual circumstances mandatory remote teaching and remote assessment methods might be adopted.
Detail description of assessment methods; Formal documentation of learning outcome:	No extra assessment methods are anticipated. 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:	The condition of passing the course is no more than 20% of absences or in accordance with the current study regulations. The final grade is issued on the basis of the average of grades for individual subjects (internal diseases, surgery, infectious diseases, reproduction), with a minimum of each subject grade 3.0.
Teaching base:	The didactic part of the classes and workshops will be conducted in classrooms of the Department of Large Animal Diseases in the Clinic in Wolica and in classrooms of the Faculty of Veterinary Medicine, practical courses in the management of farm animal reproduction and reproductive disorders are conducted in the Equine Clinic (Campus Wolica) and during field trips off e.g. in major state / federal horse studs..

Mandatory and supportive materials :

1. Handbook of Veterinary Obstetrics / Peter G. G. Jackson ; il. John Fuller ; Saunders Ltd.;
2. Veterinary Reproduction and Obstetrics. D.E. Noakes, T.J. Parkinson, G.C.W. England 9th ed. Sauders, Elsevier,
3. Large Animal Theriogenology. R.F. Youngquist, W.L. Threlfall. 2nd ed. Saunders, Elsevier.
4. Manual of Diagnostic Tests and Vaccines for Terrestial Animals. OIE,
5. Veterinary Medicine 10th Edition, O. M. Radostits, C.C. Gay, K. W. Hinchcliff, P. D. Constable. Saunders Elsevier,
6. Equine Medical Disorders, A.M. Johnston .Second Edition, Blackwell Scientific Publication, 1994
7. Practical Equine Dermatology D.H. Lloyd, J.D. Littlewood, J. M. Craig and L.R. Thomsett:. Blackwell Science, 2003
8. Equine Neurology. M. Furr, S. Reed: Blackwell Publishing, 2008
9. Equine Cardiology M. Patteson, Blackwell Science, 1996
10. Equine Neonatal Medicine M. R. Paradis:. Saunders Elsevier, 2006
11. Veterinary Medicine 10th Edition O. M. Radostits, C.C. Gay, K. W. Hinchcliff, P. D. Constable:, Saunders Elsevier, 2007
12."Equine infectious diseases 2nd edition, D. C. Sellon & M. T. Long, Saunders, 2013
13. Infectious Diseases of the Horse: Diagnosis, pathology, management, and public health, JH van der Kolk & EJB Veldhuis Kroeze, Oxford University Press USA, 2013
14. Infectious Diseases of the Horse Tim S. Mair, R. E. Hutchinson, Equine Veterinary Journal Ltd., 2009
15. H.E. Veterinary Anatomy Domestic Mammals - Textbook and Color Atlas, Koenig. Blackwell Science. 2006.
16. Textbook of Veterinary Anatomy K.M. Dyce, Wolfgang O. Sack, C. J. G. Wensing:, 3rd edition. Elsevier. 2002.
17. Clinical anatomy of the horse H.M. Clayton, P.F. Flood, D.S. Rosenstein: Mosby, Elsevier. 2005.
18. Illustrated atlas of clinical equine anatomy and common disorders of the horse. R.J. Riegel, S.E. Hakolan: 1999, Equiston publication, vol.1 and 2.
19. The equine distal limb. J.M. Denoix:, Manson Publishing, 2002.
20. Lameness of the horse M. Ross, S. Dyson:. 2003.
21. Equine surgery, J. Auer, J. Stick, Saunders Elsevier, 2006.
22. Lameness in horses T.S. Stashak Adams. Lea and Febiger, 1987.
23. www.oie.int
24. www.aaep.org
25. www.defra.gov.uk
26. www.isid.org
27. www.thehorse.com
28. www.beva.org.uk

Journals:
Theriogenology, Animal Reproduction Science, Reproduction of Domestic Animals, Biology of Reproduction, Reproduction, Fertility and Sterility, Reproductive BioMedicine Online, Archives of Andrology, Internatiomal Journal of Andrology, Andrology
Relevant scientific publications, including those of the module coordinator.

ANNOTATIONS

For reasons of occupational health and safety at the Clinic, the participants should wear medical long pants and sweatshirts or aprons with short sleeves (up to the elbow) and have with them: a surgical mask and cap, changed footwear - flat footwear soles covering the foot, you can also have shoe covers.

* 3 – complete and detailed, 2 – moderate, 1 – basic.

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:	**300 h**
Total ECTS points, accumulated by students during contact learning:	**12 ECTS**