Module title:	**Zoonoses**	**ECTS**	**1**
Polish translation:	**Zoonozy**		
Course:	**Veterinary Medicine**		

Module language: English		Stage: JM-FVM	
Form of studies: ■ intramural ☐ extramural	Type of module: ☐ basic x mandatory x directional ☐ elective	Semester:8.	☐ winter semester x summer semester
Academic year:	**Intake 2021/2022**	Catalogue number:	**FVM-V-JMSS-08S25 D70-20.**

Module coordinator:	**Prof. dr hab. Krzysztof Anusz**
Teachers responsible for the module:	Academic teachers of the Institute of Veterinary Medicine; Department of Food Hygiene and Public He students in accordance to the internal legal acts; visiting professors; other specialists in the field of stu
Objectives of the module:	The educational purpose is to prepare students to work as a public or private veterinary professional for the prevention of zoonoses, the source of which are the food of animal origin, food of a different origin, food-producing animals, companion animals. Students learn about the etiology, symptoms, clinical and laboratory diagnosis and the non-specific and specific prevention , as well as the methods of eradication and control of zoonoses (parasitic, viral, prion, bacterial, fungal, emerging - emerging zoonoses). Lectures include legal aspects of these issues and relate to the functioning of the public health system. Lecture topics: professional origin diseases (occupational diseases); legal acts regulating the control of zoonoses: epidemiological surveillance of zoonoses in EU(2h); definitions: direct zoonoses, cyclozoonoses, metazoonoses, saprozoonoses, "emerging zoonoses"(2h); zoonoses and transmission diseases; conditions of zoonoses occurrence(2h); food producing animals as a source of zoonoses); foodborne zoonoses (red meat and meat products, eggs and egg products, fish, shellfish, honey, byproducts of animal origin used for production of many products(2h); haemorrhagic fever and emerging zoonoses(2h); wildlife as a source of zoonoses(2h); pets and horses as a sources of zoonoses(2h); exotic animals as a source of zoonoses; current zoonotic threats (2h)
Teaching forms, number of hours:	a) Lectures: 15 h
Teaching methods:	Lectures are conducted with application of audiovisual means (original multimedia presentations, video Detailed schedule will be defined by the coordinator of the course at the beginning of semester. 1h/week consultations for students. Detailed organization of consultations will be defined by the coordinator of the course at the beginning of semester.
Formal prerequisites and initial requirements:	Pathomorphology modules 1-3, Animal pathophysiology, Veterinary microbiology modules 1-2, Parasitology and invasiology modules 1-2, Veterinary pharmacology modules 1-2, Veterinary epidemiology

Learning effects		Course outcomes:	Learning outcomes relative to the course outcomes	Impact on the course outcomes*
Knowledge:	1	Student knows and understands biology of infectious agents inducing zoonoses, including mechanisms of disease transmission and organism defence systems	A.W. 13	3
	2	Student knows and understands causes and symptoms of zoonoses in animals and humans, patomorphological changes as a consequences of	B. W. 3	3

		zoonoses in animals and humans, procedures of therapy and prevention in the particular zoonoses in animals and humans		
	3	Student knows and understands diagnostic (including differential diagnostics) and therapeutic procedures of zoonoses in animals and humans	B.W. 4	3
	4	Student knows and understands rules of clinical evaluation and animal health monitoring, taking into account suspicion of zoonosis	B. W. 5	2
	5	Student knows and understands appropriate law regulations, rules governing issuing of the verdicts and official opinions for the law courts, state, local and veterinary administrations in relation to zoonoses	B. W. 7	2
	6	Student knows and understand conditions for appropriate utilisation and disposal of animal by-products and management of waste from animal production, that are possible sources of zoonoses	B. W. 15	2
	7	Student knows and understands functioning of the State Veterinary Service and State Sanitary Inspection, also in the aspects of the control and eradication of zoonoses	B. W. 16	3
	8	Student knows and understands rules of consumers health protection by the appropriate organ responsible for the production of foods of animal origin	B. W. 17	2
	9	Student knows and understands occupational health and safety regulations in veterinary practice	C. W. 3	3
Skills	1	Student knows how to select and implement rational, direct and conceptual antimicrobial (zoonotic agent) therapy regarding target animal species	A. U. 11	2
	2	Student knows how to plan anamnesis in order to acquire precise information on animal or group of animals (heard), and their environment, taking into account aspects of zoonoses detection.	B. U. 2	3
	3	Student knows how to plan activity in the interdisciplinary team , in relation to the problem of zoonoses, especially regarding cooperation with medical doctors and sanitary inspectors	A. U. 15	2
	4	Student knows how to appropriately interpret responsibility of the veterinary surgeon towards animal, its owner, society and environment , taking into account problem of zoonoses in animals and humans	A. U. 16	3
	5	Student knows how to choose for professional advice and help proper specialists or specialised units in difficult cases, taking into account zoonoses	A. U 23	2
	6	Student knows how to analyse the accuracy of epizootic procedures in case of the law-regulated diseases, taking into account zoonoses	B. U. 8	2
	7	Student knows how to plan epizootic and epidemiologic investigation in suspicious cases to be zoonoses	B. U. 9	2
Competences:	1	Student is prepared to take responsibility for his decisions concerning humans, animals and environment	K. S. 1	3
	2	Student is prepared to utilise unbiased sources of information about zoonoses, with particular emphasis on emerging and re-emerging zoonoses	K. S. 4	3
	3	Student is prepared to constantly update knowledge and skills for professional development	K. S. 8	3
	4	Student is prepared to communicate with co-workers and share the knowledge in the field of zoonoses eradication	K. S. 9	3
	5	Student is prepared to collaborate with specialists of the other professions for the protection of public health	K. S. 11	3
Objectives of the module required to obtain learning effects:		The educational purpose is to prepare students to work as a public or private veterinary professional for the prevention of zoonoses, the source of which are the food of animal origin, food of a different origin, food-producing animals, companion animals. Students learn about the aetiology, symptoms, clinical and laboratory diagnosis and the non-specific and specific prevention , as well as the methods of eradication and control of zoonoses (parasitic, viral, prion, bacterial, fungal, emerging - emerging zoonoses). Lectures include legal aspects of these issues and relate to the functioning of the public health system.		

Assessment methods:	Written test … 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:	Final grade : 100% written final credit
Teaching base:	Department of food hygiene and Public Health Protection, IVM

Mandatory and supportive materials :

1. 1. Handbook of Zoonoses. Identification and prevention. J.L. Colville, D.L. Berryhill, Mosby Elsevier, 2007.
2. Zoonoses: Infectious Diseases Transmissible from animals to humans. Editors: H. Krauss, H.G. Scheffer, W. Slenczka, A. Weber, H. Zohner. American Society for Microbiology, III Edition, 2003.
3. Zoonoses – Infections Affecting Humans and Animals. Focus on Public Health Aspects. Editor: Sing A. Springer, 2015.
4. Human Infectiouse Diseases Through the Lens of Social Ecology. F. Keesing, R.S. Ostfeld, Springer New York, 2008.
5. Human-Animal Medicine. Clinical Approaches to Zoonoses, Toxicants and Other Shared Health Risks. Ed.: P. M. Rabinowitz, L. A. Conti, Saunders, 2010.
6. Veterinary Parasitology Fourth Edition. Ed.: M. A. Taylor, R. L. Coop, R. L. Wall, WILEY Blackwell, 2016.
7. Meat Hygiene. J.F. Gracey, D.S. Collins, R. J. Huey, Elsevier Health Sciences, 1999.
8. Integrated Food Safety and Veterinary Public Health. S. Buncic, CABI, 2006.

Relevant scientific publications, including those of the module coordinator.

ANNOTATIONS

* 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:	**25 h**
Total ECTS points, accumulated by students during contact learning:	**1 ECTS**