Module title:	Rotation - Farm animal infectious diseases	ECTS	1
Polish translation:	Staż z chorób zakaźnych zwierząt gospodarskich		
Course:	Veterinary Medicine		

Module language: English		Stage: JM-FVM	
Form of studies: ■ intramural ☐ extramural	Type of module: ☐ basic ■ mandatory ■ directional ☐ elective	Semester: 10	☐ winter semester ■ summer semester
Academic year:	**2020/2021**	Catalogue number:	**FVM-V-JMSS-10S-D26/4_20**

Module coordinator:	dr n. wet. Tomasz Nalbert
Teachers responsible for the module:	Academic teachers of the Institute of Veterinary Medicine; Division of Veterinary Epidemiology and Economics; PhD students in accordance to the internal legal acts; Other specialists if needed and possible.
Unit responsible for the module:	Institute of Veterinary Medicine, Division of Veterinary Epidemiology and Economics
Faculty in charge:	Faculty of Veterinary Medicine
Objectives of the module:	The aim of the course is to acquire basic practical clinical skills with particular emphasis on the recognition, treatment, prevention and control of infectious diseases of farm animals in the field in accordance with applicable law. During the practical field course (16 hours) students learn about: - principles of clinical field work with farm animals (cattle, swine) (12 hours) - current legal regulations and documentation related to trade in farm animals and principles of biosecurity and prevention of infectious diseases of farm animals in field conditions (1 hour) - methods of identifying infectious diseases including differential diagnosis of farm animals in field conditions (1 hour) - proceedings in case of suspicion of a mandatory or notifiable infectious disease (eradicated *ex officio* or being a subject of registration) and principles of conducting epizootic investigations in the event of an infectious disease of farmed animals (1 hour) - documentation in veterinary field practice and activities commissioned by the veterinary inspection related to monitoring or eradication of farm animals infectious diseases (1 hour) Practical laboratory course (5 hours), during which students conduct tests on material collected in the field, take place in the laboratory of the Division of Veterinary Epidemiology and Economics - Possibilities and methods of performing basic diagnostic tests to help detect selected infectious animal diseases (1 hour) - Understanding of the basic laboratory diagnostic tests used in the infectious diseases (1 hour) - Student's own work with collected samples (3 hours) Practical laboratory work with the official veterinary documents (4 hours) take place in the computer lab of the Division of Veterinary Epidemiology and Economics and are conducted in the collaboration with the official veterinarians from the Border Veterinary Inspectorate and Regional Veterinary Inspectorate. Topics of classes: - rules and regulations regarding national and international trade in farm animals (1 hour) - specifics of the work of Border Veterinary Inspectorates (1hour) - rules of conducting and legal regulations in the event of a suspicion or occurrence of suspicion of a mandatory or notifiable infectious disease (1 hour) - official documents regarding the trade and movement of animals, types and rules of their completion (1 hour) A valid personal accident insurance (in Polish - ubezpieczenie NNW) is mandatory to participate in field classes.
Teaching forms, number of hours:	a) Field exercises; hours 16; b) Laboratory classes; hours 9;
Teaching methods:	Field classes: - discussing about specific clinical cases, analysis and student self-presentation of their proposals for the diagnostic and therapeutic process for the discussed clinical cases, discussion on principles and participation in the prevention, monitoring, diagnosis and eradication of infectious diseases, verification of student proposals by the teacher, students own written work - individual and/or team regarding veterinary documentation. Laboratory classes: -introduction to infectious diseases diagnostic laboratories regulations and organization– BSL 1, 2 and 3 -introduction to diagnostic equipment, methods, protocols and commercial kits used in the parasitology, bacteriology and virology, serology, PCR and cell lines laboratories -student's own work with investigated samples Consultations: 1h/week.

<table>
<tr><td></td><td colspan="3">Detailed schedule of the classes and detailed organization of consultations will be defined by the coordinator of the course at the beginning of semester.</td></tr>
<tr><td>Formal prerequisites and initial requirements:</td><td colspan="3">Veterinary epidemiology, Veterinary microbiology, Immunology, Pathomorphology, Pathophysiology, Clinical and laboratory diagnostics, Parasitology and invasiology, Farm animal infectious diseases</td></tr>
<tr><td>Learning outcomes:</td><td>Knowledge:
1. knows the causes and symptoms of infectious diseases of farm animals
2. knows the principles of conducting clinical trials and monitoring the health status of farm animals, with particular emphasis on infectious diseases
3. knows the methods and principles of identifying infectious disease, including differential diagnosis.
4. knows the principles of implementing and determining the appropriate treatment and preventive treatment for infectious diseases of farm animals;
5. knows anatomopathological lesions typical for particular infectious diseases of farm animals
6. knows procedures and applicable legal provisions in the event of suspected or confirmed mandatory or notifiable infectious disease</td><td>Skills:
1. is able to diagnose infectious diseases of farm animals using laboratory diagnostic methods
2. is able to conduct anamnesis with particular emphasis on infectious diseases of farm animals
3. is able to conduct a full clinical examination of farm animals for infectious diseases
4. is able to collect, secure and properly mark biological samples
5. is able to properly interpret the results of laboratory tests and apply this knowledge in practice
6. is able to implement appropriate procedures in the event of a mandatory or notifiable infectious disease disease
7. is able to properly conduct an epizootic investigation and eradicate infectious diseases of farm animals
8. is able to properly plan and implement treatment of infectious diseases of farm animals
9. is able to supplement and maintain documentation related to veterinary practice in accordance with applicable law;</td><td>Competences:
1. is ready to recognize, implement and conduct treatment or eradication of infectious diseases of farm animals in individual individuals and the entire herd
2. critically analyzes the results of research and is ready to use them for diagnostics, treatment and eradication of infectious diseases of farm animals</td></tr>
<tr><td>Assessment methods:</td><td colspan="3">Field and laboratory classes take place once for each group.
The student has the opportunity to make up for the absence with another group but due to the limited number of people who can participate in field classes it is only possible after consultation with the coordinator of the subject. A student is required to have 100% presence during classes.

The final grade in the subject is based on the activity during classes.
Elements of field and seminar classes are assessed on point scale. Maximum number of points 10, weight 100%.

Field classes (0-6 points)
- student's active attendance in work with animals
- activity when discussing clinical cases
- performing auxiliary activities,
- completing veterinary documentation (referral for laboratory tests, animal treatment documents, etc.)
- collecting material (blood, urine, feces, swabs) for laboratory tests
- the ability to choose the right treatment method for the discussed disease

Laboratory classes (0-2 points)
- active work on the organization of the position for selected laboratory tests
- assistance in carrying out tests for the detection of infectious diseases
- student's own work (performing basic diagnostic tests)

Practical laboratory work with the official veterinary documents (0-2 points)
- discussion and completion of official forms obligatory for national and international trade of large animals under the supervision of the person conducting the classes. Completing documents regarding animals' monitoring under supervision of official veterinarians.

Final assessment scale:
0-5 points - 2.0
6 points - 3.0
7 points - 3.5
8 points - 4.0
9 points - 4.5
10 points - 5.0

No extra assessment methods are anticipated. .
In case of unforeseen, unusual circumstances mandatory remote teaching and remote assessment methods might be adopted.</td></tr>
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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:	The activity assessed during the classes represents 100% of the final grade.
Teaching base:	Animal treatment facilities and farms throughout the country, veterinary inspectorates, teaching rooms of the Division of Epidemiology and Veterinary Economics
Mandatory and supportive materials : 1. Diseases of swine, ed. 11, Wiley-Blackwell . 2019, Ed.: Jeffrey J. Zimmerman, Locke A. Karriker , Alejandro Ramirez, Kent J. Schwartz, Gregory W. Stevenson, Jianqiang Zhang. 2. Infectious Diseases of Livestock, ed. 2, Oxford University Press, Ed. J. A. W. Coetzer, R. C. Tustin 3. www.oie.int 4. www.isid.org 5. www.pubmed.com 6. www.promed.com Relevant scientific publications, including those of the module coordinator.	
ANNOTATIONS	

B.W.5Quantitative 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:	**25h**
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*)
Knowledge - 1	knows the causes and symptoms of infectious diseases of farm animals	B.W.3, B.W.4, B.W.5, A.W. 13	3
Knowledge - 2	knows the principles of conducting clinical trials and monitoring the health status of farm animals, with particular emphasis on infectious diseases	B.W. 4, B.W.5, B.W. 6, C.W. 3	3
Knowledge - 3	knows the methods and principles of identifying infectious disease, including differential diagnosis	B.W.3, B.W.4, B.W. 6	3
Knowledge - 4	knows the principles of implementing and determining the appropriate treatment and preventive treatment for infectious diseases of farm animals	B.W.3, B.W. 4, B.W. 9, A.W. 17	3
Knowledge - 5	knows anatomopathological lesions typical for particular infectious diseases of farm animals	B.W. 3, B.W. 1	3
Knowledge - 6	knows procedures and applicable legal provisions in the event of suspected or confirmed mandatory or notifiable infectious disease	B.W. 7, B.W. 8, B.W. 16, C.W. 3, C.W.2	3
Skills - 1	is able to diagnose infectious diseases of farm animals using laboratory diagnostic methods	A.U. 12, B.U.2, A.U. 19, B.U. 1, B.U. 3, B.U.6, B.U.20, C.U. 2	3
Skills - 2	is able to conduct anamnesis with particular emphasis on infectious diseases of farm animals	A.U. 12, B.U.3, B.U. 2,	3
Skills - 3	is able to conduct a full clinical examination of farm animals for infectious diseases	A.U. 12, B.U.6, B.U. 1, B.U. 3	3
Skills - 4	is able to collect, secure and properly mark biological samples	B.U.8, B.U. 1, B.U.6 A.U. 10	3
Skills - 5	is able to properly interpret the results of laboratory tests and apply this knowledge in practice	A.U. 12 A.U. 10	3 2
Skills - 6	is able to implement appropriate procedures in the event of a mandatory or notifiable infectious disease disease	A.U. 11, A.U. 12, A.U. 23, B.U. 1, B.U.8, B.U. 25, C.U. 4	3
Skills - 7	is able to properly conduct an epizootic investigation and eradicate infectious diseases of farm animals	A.U. 12, B.U. 1, B.U.13, B.U. 19, B.U.20, B.U. 21	3
Skills - 8	is able to properly plan and implement treatment of infectious diseases of farm animals	A.U. 11, A.U. 12, B.U. 1, B.U. 9, B.U. 13	3
Skills - 9	is able to supplement and maintain documentation related to veterinary practice in accordance with applicable law;	A.U. 14, A.U. 23, C.U. 4	3
Competences - 1	takes responsibility for his/her decisions concerning humans, animals and environment; . Is ready to recognize,	KS.1, K.S.4, K.S.5, K.S.10, K.S.11 K.S.8	3 2

	implement and conduct treatment or eradication of infectious diseases of farm animals in individual individuals and the entire herd		
Competences - 2	critically analyzes the results of research and is ready to use them for diagnostics, treatment and eradication of infectious diseases of farm animals	K.S.4, K.S.5, K.S.7	3