Course name:

COURSE NAME Infectious diseases of farm animals

ECTS	**4**
Course status	**obligatory**
Course final assessement/evaluation of outcomes	**exam**
Prerequisites	

Main field of study: epidemiology, microbiology, infectious diseases

field of study name (capital letters)

Profile of study	practical
The code of studies (education level)	**SM**
Semester of studies	7
Language of instruction	**English**

Course offered by: UCMW

Name of faculty offering the course	**University Centre of Veterinary Medicine, Agriculture University in Krakow**
Name of department offering the course	**Department of Infectious diseases of animals**
Course coordinator	**Assoc. Professor Kazimierz Tarasiuk DVM, PhD, DSc**

Learning outcomes of the course:

Symbol of outcome	Description of learning outcome	Reference to	
		main field of study outcomes	discipline#
KNOWLEDGE – student knows and/or understands:			
CZG_W1	etiology of infectious diseases of farm animals, the sources of infection and the routes of their spreading in stud farms	A.W13	RW
CZG_W2	pathogenesis of the disease induced by specific infectious agents in farm animals	B.W1	RW
		B.W2	RW
CZG_W3	clinical and pathological findings for the diseases caused by the infectious agents	B.W3 B.W5	RW
CZG_W4	the principles for selecting and carrying out appropriate investigations and diagnostic methods for the confirmation or exclusion of equine diseases	B.W4	
CZG_W5	the principles of conducting an epizootic investigation and implementing anti-epidemic procedures in accordance with the law in force	B.W8	RW
CZG_W6	principles of pharmacotherapy forinfectious diseases of farm animals and principles of prophylaxis, including immunoprophylaxis	B.W3 A.W12	RW
SKILLS – student is able to:			
CZG_U1	carry out a veterinary medical history and epizootic investigation to obtain accurate information on the source and routes of spread of the infectious disease of farm animals	B.U2 B.U19	RW

CZG_U2	carry out differential diagnosis of infectious diseases in livestock based on clinical and autopsy examination.	B.U3	RW
CZG_U3	select appropriate biological material samples and appropriate laboratory tests to confirm or exclude the infectious agent	B.U6	RW
CZG_U4	take appropriate biosecurity and control of infectious diseases outbreaks	B.U8 B.U25	RW
CZG_U5	select and implement appropriate therapy according to the disease entity	B.U13 B.U15	RW
CZG_U6	select and apply immunoprophylaxis programmes for farm animals	B.U21	RW
SOCIAL COMPETENCE- the student is ready to: O.K1; O.K2; O.K6; O.K8; O.K9; O.K12			

Teaching contents:

Lectures	**30 hours**
Topics of the lectures	1. Introduction into infectious diseases of farm animals. Epidemiology.Role in public health. General methods of prevention, control and eradication. 2.Hemorrhagic diseases of pigs.(classical swine fever, african swine fever, erysipelas). Etiology, pathogenesis, epidemiology, differential diagnosis. 3. Pig diseases related to nervous system (Aujeszky disease, Teschen disease, Glasser disease, Streptococcal infections in pigs) – etiopathogenesis, epidemiology, differential diagnosis. 4. Reproductive diseases of pigs (PRRS, Parvovirus infections, PCV2, Brucellosis, Leptospirosis) –etiopathogenesis, epidemiology, diagnosis. 5.Respiratory diseases of pigs (App, IAV, Mhp, PRDC) – etiopathology, epidemiology, differential diagnosis. 6.Porcine enteropaties(swine dysentery, ileitis, TGE, PED) –Etiopathogenesis, epidemiology, differential diagnosis. 7. FMD and other vesicular diseases, rinderpest, pseudorinderpest of small ruminants 8. Anaerobic infections in bovine, sheep and goats 9. Bovine tuberculosis 10. Retroviral infections of ruminants: enzootic bovine leukosis, maedi-visna disease, caprine arthritis encephalitis, ovine pulmonary adenomatosis 11. Q fever, bluetongue, anthrax 12. Nervous system infections of ruminants: listeriosis, Borna disease, botulism, transmisibl spongiform encephalopathy (TSE) 13. Skin infections: lumpy skin disease, sheep pox and goat pox, bovine catarrhal fever (MHC), contagious pustular dermatitis, caseous lymphadenitis of sheep and goats, dermatophytosis. 14. Immunoprophylaxis of bovine, sheep and goats
Accomplished learning outcomes	*symbols of learning outcomes for lectures*
Verification methods, rules and criteria of outcome assessment	*particular credits (oral, practical)* *Written examination, theoretical and practical examination.*
Classes	**45 hours**

Topics of the classes	1. Prevention and control of infectious diseases of farm animals and law. 2. ASF, CSF – clinical signs and lesions, prevention, control, stamping out. 3. Aujeszky disease, Teschen disease – clinical signs and lesions, diagnosis, prevention and control. 4. PRRS, PPV – clinical signs and lesions, prevention, control and elimination. 5. Respiratory diseases of pigs – clinical signs and lesions, diagnosis and differentation, prevention, control, elimination. 6. Intestinal tract diseases of pigs – clinical signs and lesions, diagnosis, prevention, therapy and control. 7. Laboratory diagnostics of infectious pig diseases. 8. Differential diagnosis of diarrheal infectious diseases in neonatal ruminants. Prevention and treatment. 9. Differential diagnosis of diarrheal infectious diseases in adult cattle: BVD-MD, paratuberculosis. 10. Differential diagnosis of bovine respiratory diseases: bovine respiratory syndrome, IBR-IPV, contagious bovine pleuropneumonia, contagious caprine pleuropneumonia; 11. Differential diagnosis of respiratory diseases of sheep and goats. 12. Reproductive tract infections of ruminants: brucellosis, ovine epididymitis, leptospirosis, Schmallenberg virus infection, chlamydiosis, enzootic abortion of sheep, bovine genital campylobakteriosis, contagious agalactia of sheep and goats.

Accomplished learning outcomes	
Verification methods, rules and criteria of outcome assessment	*together with participation in the final asessement (in %)*

Seminars	**0**	**hours**

Topics of the seminars	

Accomplished learning outcomes	*symbol of learning outcomesof the seminars*
Verification methods, rules and criteria of outcome assessment	*particular credits (oral, practical)*

References:

Basic	*Diseases of Swine. 11th edition. Ed.: Zimmerman J.J., Karriker L.A., Ramirez A., Schwartz K.J., Stevenson W.G., Zhang J., Willey-Blackwell, 2019; Pig DiseaseIdentification and Diagnosis Guide. Steven McOrist, CABI Publishing, 2014; Sheep and Goat Diseases. Johannes Winkelmann, 5 M Books Ltd., 2017; Color Atlas of Diseases and Disorders of Cattle. Blowey R.W., Weaver D.A. Third edition, 2011.*
Supplementary	*The Pig site; The Cattle Site; pig 333.com*

Structure of learning outcomes:

Discipline: # (*provide appripriate symbol*)	*4…*	ECTS**
Discipline: # (*provide appripriate symbol - if the course relates to more than one academic discipline*)	*4…*	ECTS**

Structure of student activities:

Contact hours	75	hours	4	ECTS**

including:	lectures	30	hours		
	classes and seminars	45	hours		
	consultations	10	hours		
	participation in research	20	hours		
	mandatory trainerships	11	hours		
	participation in examinations	4	hours		
e-learning		0	hours	…	ECTS**
student own work		25	hours	1	ECTS**

Syllabus valid from the academic year 2021/2022

*** where 10 hours of classes = 1 ECTC (in case of 15 h → 2 ECTS)**

** stated with an accuracy to 0.1 ECTS, where 1 ECTS = 25 - 30 hours of classes

academic discipline code: RZ - animal science and fishery, PB - biological sciences, etc.

Załącznik nr.2

Name, Surname, title **Kazimierz Tarasiuk DVM, PhD, DSc, Associate Professor**

University of Agriculture in Krakow

Faculty of Veterinary Medicine

Address:Mickiewicza str. 24/28 , Room W1

Phone: +48 126624019

Email: kazimierz.tarasiuk@urk.edu.pl

Consultation hours: 10-12

Research interest:

- epidemiology
- infectious diseases of pigs

Research experience:

- **Visiting Scholar** (Germany, UK, France, Denmark, the US)
- **DSc, (Habilitation)** (1997, Epidemiology of Actinobacillus pleuropneumoniae)
- **PhD** (1988, Mastitis Metritis Agalactia in sows)

Professional profiles (examples):

- ORCID: http://orcid.org/0000-0002-0636-8012
  Research ID:
  http://www.researcherid.com/rid/...
- Mendeley:
  https://www.mendeley.com/profiles/...
- Research Gate:
  https://www.researchgate.net/profile/...
- Academia: https://agh.academia.edu/...
- Google Scholar:
  http://scholar.google.com/citations...
  LinkedIn: https://www.linkedin.com/in/...

List of publications: 10 najważniejszych z 5 ostatnich lat (obligatoryjnie)

1. Kotula-Balak M., Pawlicki P., Tuz R., Plachno B. J., Arent Z., Krakowska I., **Tarasiuk K.**: The meaning of non-classical estrogen receptors and peroxisome proliferator-activated receptor for boar Leydig cell of immature testis. Acta Histochemica 122, 151526, 2020.
2. Wang Y., Zhou J., Li X., Ma L., Cao X., Hu W., Zhao L., Jing W., Lan X., Li Y., Gong X., Chen Q., Stipkvits L., Szathmary S., **Tarasiuk K.**, Pejsak Z., Liu Y.: Genetic diversity, antimicrobial resistance and extended-spectrum β-lactamase type of Escherichia coli isolates from chicken, dog, pig and yak in Gansu and Qinghai Provinces, China. J. Glob. Antimicrob. Resist. 22:726-732, 2020.
3. **Tarasiuk K.:** Mykoplazmowe zapalenie płuc u świń – choroba ważna i aktualna. Med. Weter. 2020, 76 (3), 150-154.

4. **Tarasiuk K**., Giżejewski Z.: Behawior dzików w aspekcie znaczenia tego gatunku zwierząt jako głównego rezerwuaru wirusa ASF. Med. Weter. 77 (3), 115-120, 2021.
5. **Tarasiuk K.:** Szczepionki w zwalczaniu chorób zakaźnych świń. Med. Weter. 77 (4), 221-225, 2021.
6. Wang Y, Dai J., Liu Y., Yang J., Ding Y., Ma B., Chen H., Zhang K., Zaberezhny A., **Tarasiuk K**., Pejsak Z., Liu Z., Zhang Y., Zhang J.: Development of a potential penside colorimetric LAMP assay using neutral red for detection of African Swine Fever Virus. Frontiers in Microbiol. 12, 60, 9821, 2021.
7. Duliban M., Pawlicki P., Gurgul A., Tuz R., Arent Z., Kotula-Balak M., **Tarasiuk K**.: Peroxisome proliferator-activated receptor γ, but not ά or G-protein coupled estrogen receptor drives functioning of postnatal boar testis – next generation sequencing analysis. Animals 11, 2868, 2021.
8. Pawlicki P., Galuszka A., Pardyak L., Tuz R., Plachno B.J., Malopolska M., Dubniewicz K., Kotula-Balak M., **Tarasiuk K**.: Leydig cells in immunocastrated Polish White Lop-Eared pig testis: differentiation status and steroid protein expression status. J. Mol. Sci. 23 (11), 6120, 2022.
9. Kotula-Balak M., Pawlicki P., Gałuszka A., Pardyak L., Tuz R., Dubniewicz K., Skrzypczak-Wiercioch A., Rak A., Dawid M., **Tarasiuk** K.: Effect of immunocastration using Improvac on the regulation of adiponectin and leptin in the testes of Landrace boars. Med. Weter. 78 (10), 497-502, 2022.
10. Pejsak Z., **Tarasiuk K**.: Eight years of African swine fever in Poland. Med. Weter. 78 (10), 481-488, 2022.