Module title:	Avian diseases	ECTS	6
Polish translation:	Choroby ptaków		
Course:	**Veterinary Medicine**		

Module language: English		Stage: JM	
Form of studies: ■ intramural ☐ extramural	Type of module: ☐ basic ■ directional ☐ accessory ☐ rotation ☐ summer practice mandatory ☐ elective	Semester: …9 Year 5	■ winter semester ☐ summer semester
Academic year:	**2023/2024**	Catalogue number:	FVM-V-JMSS-09W-D18_23

Module coordinator:	Artur Żbikowski, DVM, PhD		
Teachers responsible for the module:	Employees of Division of Avian, Exotic Animals and Fish Diseases		
Unit responsible for the module:	Department of Pathology and Veterinary Diagnostics		
Faculty in charge:	Faculty of Veterinary Medicine		
Objectives of the module:	Student learns about basic issues of avian anatomy, immunology, correct diagnosis of birds diseases based on the clinical, pathological examinations and laboratory tests. During the course a student should acquire the theoretical knowledge and practical skills necessary to diagnose and treat diseases in birds. Student acquires both basic and detailed information and knowledge in the field of poultry production, pigeons, exotic birds and wild birds.		
Teaching forms, number of hours:	a) Lectures: 45 h b) Practicals: 45 h		
Teaching methods:	Multimedia lectures, seminars, necropsies, materials on the Moodle platform		
Formal prerequisites and initial requirements:	Animal anatomy modules 1-2, Animal physiology modules 1-2, Immunology, Animal pathophysiology, Veterinary pharmacology modules 1-2, Animal husbandry and breeding Student should represent a good knowledge of the topics concerning the above-mentioned subjects.		
Learning outcomes:	Knowledge: • Student has a basic knowledge of anatomy and embryology, topographic anatomy of poultry and pet birds. • Student has a basic knowledge of avian pathomorphology. • Student performs veterinary investigation, is able to diagnose the most common contagious and metabolic diseases in birds. • Student has knowledge about major diseases in poultry and principles of disease prevention. • Student knows practical aspects of prophylaxis and therapy of avian diseases.	Skills: • Student can carry out clinical investigation of farm- and pet-birds and can perform basic laboratory tests. • Student can perform necropsy of birds carcasses and can prepare necropsy report and interpret results. • Student can collect samples for laboratory tests and interpret results. • Student can collect samples for laboratory tests and interpret results of these tests. • Student can prepare and perform proper therapy of avian diseases.	Competences: • Student is prepared to make decisions on the diagnosis of infectious and non-infectious diseases in birds. • Student is prepared to make decisions on treatment of avian diseases. • Student is ready to actively participate in the prevention of avian diseases subjected to eradication and registration. • Student is aware of the need for continuous education and is ready to regularly deepen the knowledge, using scientific sources. • Student is ready to formulate conclusions based on the results of necropsy and additional tests.
Assessment methods:	2 written tests, necropsy skills evaluation, writing the necropsy protocol (minimum 1 necropsy and 1 protocol per each student), practical test at the end of the semester (necropsy technique). Final exam: written test, minimum 60% (grade 3.0) to pass.		
Formal documentation of learning outcomes:	Signed tests and exam papers, necropsy protocol, grade in eHMS		
Elements impelling final grade:	Classes: To pass the classes, it is necessary to meet all the following criteria: 1. participation in the required number of classes (maximum 3 absences per semester = 20%). 2. passing all tests (written tests and practical - oral credit) with at least a grade of 3.0. 3. correct performance of at least 1 avian necropsy 4. proper preparation of at least 1 avian necropsy protocol.		

	The grade from the class is the average of the grades from the tests. Each of them must be scored at least 3.0 (60%). Lectures Written exam – test with a grade of at least 3.0 (60%). The final grade of the module (FG) entered in the eHMS system: 1. grade from classes (CG) = 50% - average from two tests and practical credit, 2. grade from the exam (EG) = 50% Calculating the final grade (FG) from module: FG = (0.5 x CG) + (0.5 x EG) A score of 60% (grade 3.0) is required to pass.
Teaching base:	Division of Avian, Exotic Animals and Fish Diseases, necropsy room of Division of Animal Pathomorphology, Clinic for Small Animals

Mandatory and supportive materials :

Obligatory

1. Swayne D.E. (Edit): Diseases of Poultry. Wiley-Blackwell, Ames, Iowa, USA, 2020 (14 Edition). doi:10.1002/9781119371199
2. Paul McMullin, Mark Pattison, Janet Bradbury, Dennis Alexander: Diseases of Poultry. 2007. Elsevier Health Sciences. ISBN: 978-0-7020-2862-5
3. Majo Natalia, Dolz Roser. Atlas of Avian Necropsy. 2019. Servet. ISBN: 978-84-92569-36-63.

Optional

1. Boulianne M. (ed.) Avian Diseases Manual. 7th ed. AAAP-American Association of Avian Pathologists 2013. ISBN:9780978916343.
2. Burkett G.: Preventative Health Care for Pet Birds, Bublish, Inc., 2020.
3. Cannon M. : A Guide to Basic Health and Disease in Birds (Revised Edition) ABK Publications, 2016.
4. Capua I., Alexander D. J.: Avian influenza and Newcastle Disease. A field and laboratory manual. Springer, Italy, 2009.
5. Carpenter J.W., Harms C. (ed.): Carpenter's Exotic Animal Formulary. 6th edition. Elsevier, USA, 2022. Paperback. ISBN:9780323833929.
6. Chitty J., Lierz M. (ed.): BSAVA Manual of Raptors, Pigeons and Passerine Birds. 1 edition. 2008.
7. Damerow G: The Chicken Health Handbook. 2nd Edition: A Complete Guide to Maximizing Flock Health and Dealing with Disease. Storey Publishing, 2015.
8. Doneley B.: Avian Medicine and Surgery in Practice Companion and Aviary Birds, Second Edition CRC Press, 2016.
9. Harrison G. J., Lightfoot T. L.: Clinical avian medicine. Spix Publishing, Inc, Florida, USA, 2006.
10. Hedley J. (ed.): BSAVA Small Animal Formulary. Part B: Exotic Pets. 10th edition. Wiley John & Sons. 2020.
11. Horbańczuk J. O.: The ostrich. 2002. Polish Academy of Sciences, Institute of Genetics and Animal Breeding.
12. Horvàth- Papp I.: Practical guide to broiler health management BetűVet Ltd, 2008.
13. Kaspers B., Schat K.A., Goebel T., Vervelde L.(ed.): Avian immunology 3rd ed. Elsevier Science Publishing Co Inc, 2021.
14. Koenig H.E., Korbel R., Liebich H-G, Klupiec C.: Avian Anatomy: Textbook and Colour Atlas, 2nd Edition. 5M Publishing. Ltd, UK. 2016.
15. McLelland J.: A colour atlas of avian anatomy. Wolfe Publishing Ltd., England, UK, 1990.
16. Ritchie B. W., Harrison G. J., Harrison L. R.: Avian Medicine: Principles and application. Wingers Publishing, Lake Worth,Florida, USA, 1994.
17. Scanes C., Dridi S.: Sturkie's Avian Physiology. 7th Edition. 2021. Elsevier Inc. https://doi.org/10.1016/C2019-0-00060-X.
18. Spackman E.: Avian influenza virus. Humana Press. Totowa, New Jersey, 2008.

List of scientific journals: Veterinary Medicine-Science and Practice (Medycyna Weterynaryjna), Poultry Science, Avian Diseases, Avian Pathology, Polish Journal of Veterinary Sciences, Journal of Veterinary Research.

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:	**…180……. h**
Total ECTS points, accumulated by students during contact learning:	**…6…. 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 -	Student has a basic knowledge of anatomy and embryology, topographic of domestic and pet birds	WW_NP2, WW_NP3	2;2
Skills	Student has a basic knowledge of immunology and prevention of poultry diseases	U_PUZ18	2
Knowledge	Student can perform clinical examination and poultry condition and welfare	W_NK5, W_PZ4, U_PUZ3, U_PUZ5	2;2;2;2
Knowledge	Student can perform necropsy of birds carcasses and can interpret of results	W_NK2, W_NK3, U_PUZ15	2;2;2;2
Knowledge	Student performs veterinary investigation, is able to diagnose the most common contagious and metabolic diseases in birds	W_NK4, U_PUZ1	2;2
Knowledge	Student can collect samples for laboratory tests and interpret results of these tests	W_NK7, U_PUZ6, U_PUZ15	2;2;2
Knowledge/Skills	Student knows practical aspects of therapy	WW_NP11, W_NK4, U_OUZ5, U_PUZ10, U_PUZ12	2;2;2;2;2;2

Knowledge/Skills	Student has knowledge about major diseases in poultry and principles of disease prevention	W_NK6, U_PUZ8	2;2

*)
3 – Significant and detailed,
2 – Partial,
1 – Basic,

WNZ-ZT-1Z-08Z-03_19

Kod Wydziału-Kod kierunku-Kod poziomu i formy-numer semestru Z zimowy L letni-numer przedmiotu w planie semestru_rok akademicki, od którego obowiązuje opis / 2019-2020 →19/

WNZ – Wydział nauk o zwierzętach (kod HMS)

ROL	Rolnictwa i Biologii
WET	Medycyny Weterynaryjnej
LES	Leśny
OGR	Ogrodnictwa, Biotechnologii i Architektury Krajobrazu
BIS	Budownictwa i Inżynierii Środowiska
TDR	Technologii Drewna
WNZ	Nauk o Zwierzętach
EKR	Nauk Ekonomicznych
NoZ	Nauk o Żywności
ZCZ	Nauk o Żywieniu Człowieka i Konsumpcji
WIP	Inżynierii Produkcji
ZIM	Zastosowań Informatyki i Matematyki
WNH	Nauk Społecznych

ZT – zootechnika

A	architektura krajobrazu
B	biologia
BD	budownictwo
BT	biotechnologia
BW	bioinżynieria zwierząt
BZ	bezpieczeństwo żywnosci
D	dietetyka
E	ekonomia
ER	ekologiczne rolnictwo i produkcja żywności
F	finanse i rachunkowość
	weterynaria
GH	gastronomia i hotelarstwo
GP	gospodarka przestrzenna
H	hodowla i ochrona zwierząt towarzyszących i dzikich
IB	inżynieria systemów biotecchnicznych
IE	informatyka i ekonometria
IG	inżynieria i gospodarka wodna
IK	inżynieria ekologiczna
IN	informatyka
IS	inżynieria środowiska
L	logistyka
LS	leśnictwo
M	meblarstwo
O	ogrodnictwo
OR	ochrona zdrowia roślin
OS	ochrona środowiska
P	pedagogika
R	rolnictwo
S	socjologia
TD	technologia drewna
TE	technologie energii odnawialnej
TU	turystyka i rekreacja
TB	towaroznawstwo w biogospodarce
TZ	technologia zywnosci i zywienie człowieka
W	weterynaria
W-N	weterynaria
	weterynaria
Z	zarządzanie
ZC	żywienie człowieka i ocena żywnosci
ZP	zarządzanie i inżynieria produkcji
ZT	zootechnika

1Z – studia I stopnia niestacjonarne

1S – I st., stacjonarne;

2S – II st., stacjonarne;

2Z – II st., niestacjonarne