



Fish diseases

ECTS: 2.00

SUBJECT MATTER CONTENT

LECTURE

Lectures are divided into thematic blocks;: basic physiology of fish, taking into account differences resulting from different structure and living environment, non-specific and specific defense mechanisms of the body determining an effective defense against various types of fish pathogens, infectious diseases including viral diseases, bacterial and fungal infections, including compulsorily notifiable diseases; environmental diseases resulting from various systems of rearing and the quality of water used for breeding; basic parasitic infections having significant economic importance in fish farming; methods for early diagnosis of infectious diseases using the latest molecular biology techniques, effective methods to protect the health of the fish, the latest developments in the field of treatment and control of infectious diseases and methods of immunoprophylaxis (immunomodulators, vaccine).,CLASSES AUDYTORYJNE:During exercise didactic films are presented , special attention is paid to the differences in the biology of particular groups of fish and their breeding, species differences in the external and internal physique, and basic physiological processes. Exercises on infectious diseases of fish are seminar exercises which purpose is to collect, summarize and discuss fish pathologist work-related issues. The legal aspects and procedures concerning the diagnosis and work against fish diseases subjected to control or registration in Poland, the EU and the world (SVC VHS, IHN, KHV, IPN, BKD) are discussed.,CLASSES PRAKTYCZNE:Fieldwork is carried out at the fish farm, where demonstrated is the possibility of carrying out the veterinary procedures. An important element of the practical exercise is to familiarize with the post-mortem technique, including clinical examination and microscopic examination.

TEACHING OBJECTIVE

The aim of education is the acquisition by the student's knowledge in the field of biology, anatomy, physiology, fish breeding and the causes and mechanisms of formation and development of infectious diseases, invasive, environmental, as well as practical skills concerning the identification, differentiation, treatment, prevention and control of fish diseases

DESCRIPTION OF THE LEARNING OUTCOMES OF THE COURSE IN RELATION TO THE DESCRIPTION OF THE CHARACTERISTICS OF THE SECOND LEVEL LEARNING OUTCOMES FOR QUALIFICATIONS AT LEVELS 6-8 OF THE POLISH QUALIFICATION FRAMEWORK IN RELATION TO THE SCIENTIFIC DISCIPLINES AND THE EFFECTS FOR FIELDS OF STUDY:

Symbols for outcomes related to the discipline:

R/WA_P7S+++

Symbols for outcomes related to the field of study:

A.W17. +, K.1.+ , B.U6. +, B.U8. +, B.U20. +, B.W8. +, A.W10. +, B.W10. +, B.U2. +, B.W5. +, B.U13. +, B.W6. +, B.W4. +, K.8.+ , B.U19. +, B.U21. +

Legal acts specifying learning outcomes:
682/2020
Disciplines: Veterinary science
Status of the course:Obligatoryjny
Group of courses:B - przedmioty kierunkowe
Code: ISCED 0841
Field of study:Veterinary Medicine
Scope of education:
Profile of education: General academic
Form of studies: full-time
Level of studies: uniform master's studies
Year/semester: 4/8

Types of classes: Lecture, Classes, Practical classes
Number of hours in semester:Lecture: 15.00, Classes: 13.00, Practical classes: 2.00
Language of instruction:Polish
Introductory subject: Biology, Physiology, Biochemistry, Immunology, Microbiology, Pathology, Veterinary Epidemiology
Prerequisites: knowledge of basic concepts and issues of introductory courses

Name of the organisational unit conducting the course:Katedra Epizootiologii
Person responsible for the realization of the course:prof. dr hab. wet. Agata Bancercz-Kisiel
e-mail: a.bancercz-kisiel@uwm.edu.pl

Additional remarks: practical exercises and field are carried out in small groups

LEARNING OUTCOMES:

Knowledge:

W1 – Student speaks English and Latin nomenclature; describes and interprets the causes, clinical signs and pathological lesions, applies the rules of treatment and prevention of particular diseases. Implements the rules of diagnostic (including differential diagnosis) and therapeutic procedures; carries out a clinical examination of the patient and monitors the state of animal health in industrial breeding; applies proper procedures in case of ascertainment of notifiable diseases under control or registration; collects, analyzes and correctly interprets the clinical data and the results of laboratory and additional examinations.

Skills:

U1 – Student correctly interprets the responsibility of veterinary surgeon towards animal and its owner, as well as society and environmental; carries out a veterinary interview in order to obtain precise information about a single animal or group of animals and its or their environment of existence; takes, protects and knows the rules for transport of samples and performance of standard laboratory tests; implements appropriate procedures in case of ascertainment of notifiable disease under to control or registration; selects and applies an appropriate treatment; develops and implements prevention programs specific to particular fish species.

Social competence:

K1 – Student demonstrates responsibility for decisions taken towards humans and animals; is able to critically assess their own and other people's actions and improve the proposed solutions; has a consciousness of consequences of the decision taken especially those interfering natural environment.

TEACHING FORMS AND METHODS:

Lecture(W1;U1;K1;):Lecture with multimedia presentation.

Practical classes(W1;U1;K1;):Differential diagnosis of fish diseases, post-mortem examinations, diagnostics.

FORM AND CONDITIONS OF VERIFYING LEARNING OUTCOMES:

Lecture (Oral test) - The knowledge of the lectures content is enforced during the test. There is 1 oral test per semester. To pass the test, you must obtain at least 65% of the possible points. The grading of grades is based on the score thresholds described in the faculty procedure "Principles of grading students". The student may attempt to correct the test twice. The condition for receiving the final credit for the exercises and lectures is to obtain a positive grade from the entire material discussed in the course of the classes. "In the event of a top-down suspension of classroom classes and the necessity of distance learning, the methods of verifying the achievement of learning outcomes declared in the syllabus, i.e. the forms of passing the exam and exercises, may change in a manner appropriate to the situation." -

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Practical classes (Evaluation of the work and cooperation in the group) - Self-diagnosis of diseases based on changes in organs found during autopsy. -

BASIC LITERATURE:

1. Noga E.J. , *Fish diseases, Diagnosis and treatment*, Wyd. Mosby, R. 2010, s.
2. Siwicki A.K., Anderson D.P., Waluga J., *Fish Diseases Diagnosis and Prevention Methods*, Tom 1, Wyd. IRS Olsztyn, R. 1993, s.

3. Siwicki A.K., *Biologiczne monitorowanie skażenia środowiska*, Tom 1, Wyd. IRS Olsztyn, R. 1996, s.
4. Goryczko K., *Pstrągi - chów i hodowla*, Tom 1, Wyd. IRS Olsztyn, R. 2005, s.
5. Siwicki A.K., Antychowicz J., Waluga J., *Choroby ryb hodowlanych*, Tom 1, Wyd. IRS Olsztyn, R. 1994, s.
6. OIE, *Diagnostic manual for aquatic animal diseases*, Tom 1, Wyd. Office International des Epizooties, R. 2003, s.
7. Siwicki A.K., *Wpływ ksenobiotyków na układ odpornościowy*, Tom 1, Wyd. IRS Olsztyn, R. 1997, s.
8. Szczerbowski J.A., *Rybackstwo śródlądowe*, Tom 1, Wyd. IRS Olsztyn, R. 2008, s.
9. Antychowicz J., *Choroby i zatrucia ryb*, Tom 1, Wyd. SGGW, R. 1996, s.
10. Prost M., *Choroby ryb*, Tom 1, Wyd. PTNW, R. 1996, s.
11. Kilarski W., *Zarys anatomii i histologii ryb doskonałokostnych*, Tom 1, Wyd. IRS Olsztyn, R. 2007, s.
12. Szweda W., Siwicki A.K., Terech-Majewska E., red., *Choroby ryb podlegające obowiązkowi zwalczania oraz inne choroby zagrażające hodowli – diagnostyka, profilaktyka, terapia.*, Wyd. IRŚ, R. 2010, s.

SUPPLEMENTARY LITERATURE:

1. Siwicki A.K., *Wpływ ksenobiotyków na organizm zwierząt i człowieka*, Tom 1, Wyd. IRS Olsztyn, R. 1999, s.
2. Sieniawski A., *Zdrowe dyskowce*, Tom 2, Wyd. Galaktyka, R. 2006, s.
3. Kolman R., *Jesiotry - chów i hodowla*, Tom 1, Wyd. IRS Olsztyn, R. 2006, s.
4. Wojda R., *Karp - chów i hodowla*, Tom 1, Wyd. IRS Olsztyn, R. 2005, s.
5. Adamek J., *Sum afrykański - technologia*, Tom 1, Wyd. IRS Olsztyn, R. 2005, s.