



Diagnostic imaging

ECTS: 4.00

SUBJECT MATTER CONTENT

LECTURE

Auditorium presentation of the basics of imaging diagnostics. Includes radiology, ultrasound, scintigraphy, endoscopy (including laparoscopy and arthroscopy). Two-hour lectures for 9 weeks. Theoretically, they prepare the student to take x-rays, ultrasound and endoscopic examinations.

PRACTICAL CLASSES

Practical teaching of the student how to take x-rays, familiarization with X-ray equipment, improving diagnosis based on X-rays images, demonstrating how imaging methods serve as an additional test for making various disease diagnoses. Additional diagnostic exams and evaluation obtained results.

AUDITORIUM CLASSES

Practical teaching of the student how to take x-rays, familiarization with X-ray equipment, improving diagnosis based on X-rays images, demonstrating how imaging methods serve as an additional test for making various disease diagnoses. Additional diagnostic exams and evaluation obtained results.

TEACHING OBJECTIVE

Knowing with the principles of diagnostic imaging.

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:

B.U7. +, A.U14. +, A.U21. +, A.W1. +, K.8.+

LEARNING OUTCOMES:

Knowledge:

W1 – Knows and describes the structure of the animal organism: cells, tissues, organs and systems in dogs and cats as well horses and cattle.

Skills:

U1 – The student is able to use diagnostic equipment, including radiological, ultrasound and endoscopic, in accordance with its intended use and safety rules for animals and humans, and interpret the test results obtained after its application. The student is able to

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, Practical classes, Auditorium classes
Number of hours in semester: Lecture: 18.00, Practical classes: 11.00, Auditorium classes: 24.00
Language of instruction: Polish
Introductory subject: anatomy, topographic anatomy, pathophysiology, pharmacology, general surgery and anesthesiology
Prerequisites: Knowledge of the anatomy and topographic anatomy, knowledge of the physiology and pathophysiology of individual body systems, knowledge of the pharmacokinetics and pharmacodynamics of substances used in diagnostic imaging.

Name of the organisational unit conducting the course:
Person responsible for the realization of the course: dr wet. Marta Mieszkowska
e-mail: marta.mieszkowska@uwm.edu.pl

Additional remarks:

prepare clear descriptions of cases and lead documentation, in accordance with applicable regulations, in a form understandable to the owner the animal and readable to other veterinarians. The student demonstrates an understanding of the need and necessity lifelong learning for continuous professional development.

Social competence:

K1 – He has a habit of constantly broadening his knowledge and improving skills, and is aware of his own limitations. He puts the patient's well-being in the first place.

TEACHING FORMS AND METHODS:

Lecture(W1;U1;K1;):Auditorium presentation of imaging methods in the form of two-hour lectures.

Practical classes(W1;U1;):Observation and assistance in various veterinary activities, analysis and preparation of descriptions of the results of imaging studies of clinical cases.

Auditorium classes(W1;U1;K1;):Discussion of the methods of imaging individual areas of the body, taking into account various tools and species specificity.

FORM AND CONDITIONS OF VERIFYING LEARNING OUTCOMES:

Lecture (Colloquium test) - There are 2 oral tests per semester. The material includes the content presented in lectures and classes. The grade for the test is issued on the basis of the arithmetic mean value of the grades obtained for each question. The rounding of the score is based on the following value ranges: mean ≥ 4.76 : very good (5.0); average in the range of 4.26-4.75: good plus (4.5); average in the range: 3.76 - 4.25: good (4.0); average in the range of 3.26 - 3.75: sufficient plus (3.5); mean ≤ 3.25 : satisfactory (3.0). The student may attempt to correct the test twice. The condition for receiving the final pass from the exercises is to obtain positive marks from all tests taking place in the course of the classes. In case of passing all the tests, the final grade for the exercises is issued on the basis of the arithmetic mean value of all the grades obtained in the tests (including failing grades). The rounding of the evaluation is done on the basis of the above-mentioned ranges of values. Failure to pass any of the tests is tantamount to obtaining an unsatisfactory final grade in the subject. 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. -

Practical classes (Colloquium practical) - Practical skills will be verified in the form of analysis and description of the presented results of imaging tests (X-ray, CT, MRI, USG). The student recognizes the imaging method, the disease entity and describes the visible radiological changes / pathological changes in the remaining tests. The mark of the colloquium is issued for correctly completed practical work. The student may attempt to correct the test twice. In the event of a top-down suspension of classroom classes and the need for 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. -

Auditorium classes (Oral test) - There are 2 oral tests per semester. The grade for the test is issued on the basis of the arithmetic mean value of the grades obtained for each question. The rounding of the score is based on the following value ranges: mean ≥ 4.76 : very good (5.0); average in the range of 4.26-4.75: good plus (4.5); average in the range: 3.76–4.25: good (4.0); average in the range of 3.26-3.75: sufficient plus (3.5); mean ≤ 3.25 : satisfactory (3.0). The student may attempt to correct the test twice. The condition for receiving the final pass from the exercises is to obtain positive marks from all tests taking place in the course of the classes. In case of passing all the tests, the final grade for the exercises is issued on the basis of the arithmetic mean value of all the grades obtained in the tests (including failing grades). The rounding of the evaluation is done on the basis of the above-mentioned ranges of values. Failure to pass any of the tests is tantamount to obtaining an unsatisfactory final grade in the subject. 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. -

BASIC LITERATURE:

1. Empel W., *Radiodiagnostyka Weterynaryjna*, Tom 1, Wyd. PWRiL, R. 1998, s. całość
2. Coulson A., Lewis N., *Atlas interpretacji obrazów radiograficznych anatomii psa i kota*, Tom 1, Wyd. Galaktyka, R. 2005, s. całość
3. Nicpoń J., Kubiak K., *Badanie endoskopowe psów i kotów*, Tom 1, Wyd. AR Wrocław, R. 2000, s. 1-350
4. Thrall D.E., *Diagnostyka radiologiczna w weterynarii*", Tom 1, Wyd. Edra Urban Partner, R. 2010, s. całość
5. Kealy J.K., Graham J.P., McAllister H., *Diagnostyka radiologiczna i ultrasonograficzna psów i kotów*, Tom 1, Wyd. Edra Urban Partner, R. 2013, s. całość

SUPPLEMENTARY LITERATURE:

1. Waibl H., Mayrhofer E., Matis U., Brunnberg L., Kostlin R., *Atlas anatomii radiograficznej psa*, Tom 1, Wyd. Galaktyka, R. 2012, s. całość
2. Waibl H., Mayrhofer E., Matis U., Brunnberg L., Kostlin R., *Atlas anatomii radiograficznej kota*, Tom 1, Wyd. Galaktyka, R. 2016, s. całość
3. Schild H., *Zrozumieć rezonans magnetyczny*, Tom 1, Wyd. Schering, R. 1994, s. całość