

Code of subject	M_WE_SEM10 CHPK 2
Field of study	Veterinary
Name of the training module including the Polish name	Diseases of dogs and cats. Block 2 Choroby psów i kotów. Blok 2
Language of instruction	English
Type of the training module	obligatory
Level of the training module	Master level
Form of studies	stationary
Location in the programme (year)	V
Location in the programme (semester)	X
Number of ECTS credits with a division into contact/noncontact	14 (8/6)
Name and surname of the person in charge	prof. Stanisław Winiarczyk
Unit offering the subject	Department and Clinic of Animal Surgery Department and Clinic of Animal Internal Diseases, Department and Clinic of Animal Reproduction Department of Epizootiology and Clinic of Infectious Diseases
Aim of the module	The module aims at mastering theoretical knowledge and acquiring practical skills related to general and detailed surgery and anaesthesiology of dogs and cats. The course also covers issues in the diagnosis of diseases requiring pre- and post-operative surgical management. In addition, the aim of the module is to acquaint students with the knowledge of the course and treatment of diseases of the digestive, urinary, locomotor and nervous systems of dogs and cats. Students will develop skills in performing the stages of clinical diagnostics, interpretation of laboratory results, determining treatment modalities and its monitoring. The course also presents methods of examination of the reproductive system and aspects related to the estrous cycle, pregnancy and birth in bitches and cats. The programme is based on the knowledge about the diseases of the reproductive system as well as conservative and surgical methods of their treatment. The student will also learn about contraception in bitches and cats and aspects related to kittens and puppies. In addition, an essential element of the module is an introduction to infectious diseases of dogs and cats, including those that are controlled, and management to eliminate and reduce their spread.
Learning outcomes – the total number of learning outcomes may not exceed (4-8) for the module. The description of the intended learning outcomes that a student should achieve after the completion of the module should be provided. The outcomes for all forms of classes used should be presented.	Knowledge:
	The student knows and understands: K1. Aetiology and pathogenesis, diagnostic methods, therapeutic management and prevention of individual diseases in cats and dogs.
	K2. Principles of analysis and proper interpretation of clinical data and laboratory test results in individual units concerning infectious diseases and reproductive disorders in cats and dogs

	K3. Principles of prevention and treatment of individual internal, infectious, reproductive and surgical diseases in cats and dogs.
	K4. Characteristics of normal reproductive processes and major hormonal regulation of reproduction and mechanisms of reproductive disorders in female cats and dogs.
	K5. Ways of dealing with suspected or confirmed diseases in cats and dogs that are subject to compulsory eradication.
	Skills:
	S1. Collect material for examination and use basic laboratory techniques in the diagnosis and treatment of diseases in cats and dogs.
	S2. Select and administer appropriate chemotherapy taking into account the target species.
	S3. Maintain the principles of surgical asepsis when preparing for procedures and when participating in surgeries.
	S4. Assist in surgery, perform simple surgical procedures
	S5. Recognize, define and explain normal reproductive processes in female cats and dogs and undertake appropriate treatment of reproductive disorders and provide perinatal care.
	S6. Develop an appropriate regimen for the control and prevention of infectious diseases in cats and dogs and apply the appropriate regulations.
	S7. Assess the need for euthanasia in cases of poor prognosis and suffering of the animal and inform the owner in an appropriate manner.
	Social Competence:
	C1. Present an attitude in accordance with the principles of the code of ethics of a veterinarian.
	C2. Deepen knowledge and improve skills in the treatment of the internal, orthopaedic and dental diseases of dogs and cats.
	C3. Critically evaluate one's own decisions and feel responsible for them.
Preliminary and additional requirements	according to the sequence of subjects
Contents of the training module – a compact description of approx. 100 words.	<p><b>Dog and Cat Surgery</b></p> <p><u>lectures</u></p> <ol style="list-style-type: none"> <li>1. Head injuries – complications, surgical management.</li> <li>2. Upper airway obstruction – symptoms, indications for surgical treatment.</li> <li>3. Esophageal diseases in small animals – clinical symptoms, diagnosis, treatment.</li> <li>4. Neck region surgery, diagnostics, diagnosis, treatment.</li> <li>5. Chest imaging in a surgical patient.</li> <li>6. Gastric diseases – clinical symptoms, therapeutic management.</li> <li>7. Intestinal obstruction – clinical symptoms, indications for surgery.</li> <li>8. Peritonitis – causes, symptoms, diagnosis and treatment.</li> </ol>

9. Diagnostic X-ray of the abdominal cavity and skeletal system with elements of computed tomography in a patient before surgery.
10. Hernias – causes, types of hernias, clinical symptoms, surgical management.
11. Urinary tract obstruction – symptoms, diagnosis.
12. Conservative methods of fracture treatment, biology of fracture healing.
13. Indications and methods of surgical treatment of fractures. Postoperative complications.
14. Joint dislocations in dogs and cats – diagnostics.
15. Radiographic assessment of the knee joint before surgery.

classes

1. Wounds – types of wounds, symptoms, diagnostics and management.
2. Diseases of the external ear – wounds, haematoma, exposure of the external auditory canal.
3. Types of hernias, aetiology, method of management, indications, complications.
4. Diseases of the rectal area, aetiology, surgical methods of treatment.
5. Application of endoscopy in animal diseases.
6. Principles of oncological surgery – indications, technique of procedures.
7. Laparotomy and abdominal surgery part I.
8. Laparotomy and abdominal surgery part II.
9. Urinary tract diseases in dogs and cats.
10. Diagnostics and surgical treatment of urethral diseases.
11. Diagnostics and treatment of long bone fractures.
12. Conservative methods of fracture treatment. Biology of healing.
13. Intraoperative radiological assessment of limb injuries.
14. Application of computed tomography in head and spinal injuries.
15. Types and methods of surgical treatment of fractures, postoperative complications.

**Reproduction of dogs and cats**

lectures (each lecture 1 hour)

1. Physiology of the estrous cycle in bitches and cats.
2. Neurohormonal regulation of the estrous cycle in bitches and cats
3. Physiology of pregnancy in bitches and queens
4. Pathology of pregnancy in bitches and queens
5. Postpartum period disorders in bitches and queens
6. Vaginal abnormalities and diseases of the vagina in bitches and queens
7. Diseases of the uterus in bitches and queens
8. Diseases of the ovaries in bitches and queens

9. Mastitis and functional disorders of the mammary gland in bitches and queens
  10. False pregnancy in bitches
  11. Mammary gland tumours in bitches and queens
  12. Fertility disorders in bitches and queens (2 hour lecture)
  13. Selected diseases of puppies and kittens in the neonatal period (2 hour lecture)
- classes (each lasting 2 hours)
1. Specificity of the structure of reproductive system in dogs and cats – practical exercises on isolated organs
  2. Clinical examination of the reproductive system in bitches and queens
  3. Physiological birth in bitches and queens
  4. Causes of difficult birth in bitches and queens Conservative management of difficult birth in bitches and queens
  5. Caesarean section in bitches and queens
  6. Neonatal health assessment of puppies and kittens, artificial rearing of puppies and kittens
  7. Treatment of puppies and kittens in the neonatal period and intensive therapy
  8. Cytological and bacteriological examination of the reproductive tract of bitches and queens
  9. Determination of the right time for mating or insemination of a bitch
  10. Diagnostics of pregnancy in bitches and queens
  11. Use of ultrasound in the reproduction of bitches and queens
  12. Ovariohysterectomy and ovariectomy procedures in bitches and queens
  13. Practical implementation of ovariohysterectomy in bitches and queens
  14. Contraception in bitches and queens
  15. Perineal, vaginal and mammary gland surgery in bitches and queens
- Internal diseases of dogs and cats**
- lectures
1. Body water management: water spaces, fluid movement, recognition of dehydration
  2. Preparation of fluid therapy: amount and type of fluids, technical execution, routes and speed of administration
  3. Control of acidosis and alkalosis as an adjunct to fluid therapy
  4. Symptomatology of gastrointestinal diseases. Methods of examination and diagnosis of gastrointestinal diseases,
  5. Vomiting – causes and differential diagnosis
  6. Diarrhoea – causes and differential diagnosis,
  7. Acute kidney injury – pathophysiology and diagnosis

8. Chronic kidney disease – pathophysiology and diagnosis
  9. Therapy of chronic kidney disease in dogs and cats
  10. Examination and symptomatology of diseases of the nervous system
  11. Myopathies and arthropathies
  12. Medical course in internal diseases of dogs and cats
- classes
1. Symptomatology and principles of diagnosing digestive system diseases
  2. Diseases of the oral cavity, pharynx and oesophagus
  3. Diseases of the stomach and intestines
  4. Diseases of the liver and pancreas. Diabetes
  5. Acute kidney injury (AKI), causes and diagnosis
  6. Chronic kidney disease (CKD) causes and diagnosis
  7. Diseases of the bladder and urinary tract, causes and diagnosis. Urinary calculi
  8. Epilepsy and status epilepticus – diagnosis and treatment;
  9. Inflammation of the brain, spinal cord and meninges
  10. Myopathies and arthropathies – diagnosis and treatment

### **Dermatology**

#### lectures

1. Structure and function of the skin. Clinical examination of the skin, symptomatology and interpretation of changes in relation to skin diseases. MSZ
2. Wood's lamp, hair examination, scraping, Scotch tape test.
3. Cytologic examination.
4. Histopathological examination.
5. Allergy diagnostics.
6. Dermoscopy, ultrasound examination of biophysical parameters of the skin.
7. Complicating dermatoses.
8. Genetic tests.
9. Algorithm in non-inflammatory alopecia.
10. Breed predisposition to skin diseases and news on AD in dogs.
11. Management and treatment of inflammation of the external auditory canal.
12. Dermatological manifestations of systemic diseases.

#### classes

1. Ectoparasitic dermatoses
2. Dermatomycoses (skin mycoses)
3. Atopy and atopic dermatitis.
4. Alergodermatoses.
5. Autoimmune dermatoses.
6. Endocrinogenic dermatoses.
7. Genodermatoses.

	<p>8. Main dermatoses of cats.  9. Main dermatoses of cats cont.  Discussion of topographic dermatoses in animals.</p> <p><b>Infectious diseases of dogs and cats</b></p> <p><u>lectures</u></p> <ol style="list-style-type: none"> <li>1. Prevention of infectious diseases in dog breeding.</li> <li>2. Prevention of infectious diseases in cat breeding.</li> <li>3. Basics of vaccinology</li> <li>4. Principles of microbiological sampling</li> <li>5. Determination of antibody titres in veterinary practice.</li> <li>6. Lyme disease, part 1</li> <li>7. Lyme disease, part 2</li> <li>8. Canine anaplasmosis</li> <li>9. Feline anaplasmosis</li> <li>10. Canine and feline ehrlichiosis</li> <li>11. Arthropod-borne infectious diseases in cats</li> <li>12. Canine herpesvirus</li> <li>13. Feline mycoplasmosis</li> <li>14. Clinical cases, part 1</li> <li>15. Clinical cases, part 2</li> </ol> <p><u>classes</u></p> <ol style="list-style-type: none"> <li>1. Canine and feline rabies</li> <li>2. Prevention of infectious diseases in dogs</li> <li>3. Prevention of infectious diseases in cats</li> <li>4. Parvovirus, coronavirus</li> <li>5. Measles</li> <li>6. Infectious hepatitis in dogs</li> <li>7. Leptospirosis</li> <li>8. Infectious canine tracheobronchitis</li> <li>9. Feline panleukopenia</li> <li>10. Feline leukemia (FeLV)</li> <li>11. Feline immunodeficiency syndrome (FIV)</li> <li>12. Feline infectious peritonitis (FIP)</li> <li>13. Cat scratch fever, herpesvirus, calicivirus</li> <li>14. Bacterial diseases of the respiratory system of dogs and cats.</li> <li>15. Bacterial diseases of the digestive system of dogs and cats.</li> </ol>
<p>Recommended and obligatory reading list</p>	<ol style="list-style-type: none"> <li>1. T. Fossum - Small Animal Surgery</li> <li>2. D.Slatyer - Textbook of small animal surgery</li> <li>3. K.M.Tobias - Manual of small animal soft tissue surgery</li> <li>4. S.J.Ettinger, E.C.Feldman, E.Cote - Textbook of veterinary internal medicine</li> <li>5. T.R.Tams - Handbook of small animal gastroenterology</li> <li>6. J.M.Steiner - Small animal gastroenterology</li> </ol>

	<ol style="list-style-type: none"> <li>7. G.Simpson - Manual of small animal reproduction and neonatology</li> <li>8. G.England, A. von Heimendahl -BSAVA Manual of canine and feline reproduction and neonatology</li> <li>9. D.W.Scott -Muller and Kirk's Small animal dermatology</li> <li>10. C.E.Greene - Infectious diseases of the dog and cat</li> <li>11. J.E.Sykes - Canine and feline infectious diseases</li> <li>12. K.Hartmann, J.Sykes -Canine infectious diseases</li> <li>13. L.P.Tilley, F.W.K.Smith - Blackwell's five-minute veterinary consult - canine and feline</li> </ol> <p>Scientific publications indicated by the instructor in the field of the discussed educational contents and scientific research conducted in the unit.</p> <p>Thematic articles in professional journals of small animal practitioners.</p>
<p>The intended forms/activities/ teaching methods</p>	<p>Classes are conducted on the basis of the author's lectures, multimedia presentations, as well as practical performance of clinical diagnostic procedures in the field of taking the medical story, clinical examination and making a diagnosis with suggestions for treatment. Discussion and solving hypothetical clinical situations are also an element of learning.</p> <p>Practical classes are carried out with the participation of clinical patients and on didactic models and cadavers. In the presence of the instructor, students take a clinical medical story with the animal's owner, analyse the results of examinations (laboratory, radiological, ultrasound) and make a diagnosis, then discuss the possibilities of surgical treatment, taking into account the technical feasibility and economic aspect. During the practical classes in surgery, the teacher discusses and comments on the various stages of the procedures. After the procedure, the students discuss possible complications and methods of convalescence.</p> <p>Consultations are arranged at the beginning of the semester with the course coordinator; this is one hour per week.</p>
<p>Methods of verification and documentation forms of the achieved learning outcomes</p>	<p><b>Dog and Cat Surgery:</b></p> <p>The student is obliged to prepare from theoretical knowledge concerning the planned topic of classes. The degree of the student's preparation is evaluated in oral form (student's choice and random questions asked by the instructor). Answers to the questions are assessed on a grading scale from 2 to 5. Final examination – participation in classes (80%) in accordance with the current study regulations and the Book of Education Quality is a preliminary requirement for taking it. Examination in written form with the material from classes and lectures in the form of a single-choice test. The test contains 20 questions each assessed by one point, a pass of 12 points – 60%. Grading scale: 3.0 12-14 pts.</p>

4.0 15-17 pts.

5.0 18-20 pts.

**Reproduction in dogs and cats:**

K – Learning outcomes – discussion; oral test so-called “entrance test” (at the beginning of each class, 5 to 10 students are questioned. Each student is asked 2 questions from the scope of knowledge covered during all previous classes. To get a positive mark, the student must answer at least 60% of each question. The grade from the “entrance test” is the average of the grades for each question, according to the criteria given in the Book of Education Quality. In the case of a failing grade, the student is required to supplement the knowledge and improve the grade within 2 weeks of receiving the failing grade); test exam.

S – Outcomes in the scope of skills – assessment of the correctness of the veterinary activities performed under the supervision of the instructor during the practical classes. Correct performance is recorded as passed.

C – Outcomes in the scope of competences – discussion

The final examination in the form of a test consisting of 45 single-choice, multiple-choice and open questions, covering the content of education performed during the lectures and classes. A preliminary requirement for obtaining a positive grade from the examination is obtaining 60% of points.

Criteria for obtaining particular grades with a maximum of 45 points possible to obtain:

- 27 pts. – 30 pts. – sufficient (3.0);
- 30.5 – 34 pts. – sufficient plus (3.5);
- 34.5 – 38 pts. – good (4.0);
- 38.5 – 42 pts. – good plus (4.5);
- 42.5 – 45 pts. – very good (5.0).

**Veterinary dermatology:**

A 2-part pass: practical (performance of clinical examination and additional examinations after drawing 3 questions) and a single-choice test (according to the verification of learning outcomes at the Department of Veterinary Medicine). The passing grade is the arithmetic mean from 2 parts (mean from 2 to 2.75 – failing grade; 2.76 to 3.25 – sufficient; 3.26 to 3.75 – sufficient plus; 3.76 to 4.25 good; 4.26 to 4.75 good plus; 4.76 to 5 very good).

**Infectious diseases of dogs and cats:**

A student may have one unexcused absence per semester. In order to be admitted to the final assessment, the student must demonstrate practical skills acquired during classes with the participation of clinic patients. The student is checked for the ability to take history, conduct clinical examination, collect pathological material (blood, faeces, urine, smears) for haematological, biochemical, bacteriological, virological, molecular tests and diagnostic tests.

	<p>The final test of the course is a single-choice closed test consisting of 60 questions, each scored with 1 point. A maximum of 60 points is achievable. A passing grade requires at least 60%, i.e. at least 36 correct answers. The point thresholds are set in accordance with the guidelines of the Book of Education Quality.</p> <p>Earned grades are entered in the Virtual Dean's Office.</p>		
Balance of ECTS credits	<b>CONTACT</b>		
		<i>Hours</i>	<i>ECTS</i>
	lectures	75	2,8
	classes	135	4,9
	consultations	2	0,07
	partial credit	4	0,16
	exam	2	0,07
	<b>TOTAL contact hours</b>	<b>216</b>	<b>8</b>
	<b>NON-CONTACT</b>		
	preparation for classes	73	2,7
	preparation for course completion	46	1,7
	preparation for the exam	43	1,6
<b>TOTAL non-contact hours/ ECTS credits</b>	<b>162</b>	<b>6</b>	
Number of contact hours	lectures	75	2,7
	auditory classes	135	4,9
	consultations	2	0,1
	partial credit	4	0,2
	exam	2	0,1
	<b>TOTAL contact hours</b>	<b>216</b>	<b>8</b>
Relationship between subject learning outcomes and veterinary studies learning outcomes	<p>K1. – WE_W16 +++, WE_W21 +++)  K2. – WE_W17 +++, WE_W21 +++)  K3. – WE_W18 +++)  K4. – WE_W16 +++)  K5. – WE_W20 +++)  S1. – WE_U19 +++)  S2. – WE_U23 +++, WE_U25 +++)  S3. – WE_U26 +++)  S4. – WE_U17 +++, WE_U24 +++)  S5. – WE_U17 +++, WE_U25 +++)  S6. – WE_U21 +++)  S7. – WE_U27 +++)  Sc1. – WE_K2 ++  Sc2. – WE_K6 ++  Sc3. – WE_K5 ++</p>		
Impact of selected compounds to final grade	<p><b>Dog and Cat Surgery:</b></p> <p>The preliminary requirement for passing the examination is the attainment of passing grades and attendance in accordance with the current study regulations.</p> <p>Final grade for the course 100% of the final exam grade.</p>		

**Reproduction in dogs and cats:**

Admission to the final exam: full attendance or in accordance with the current study regulations + positive grades in all "entrance tests" + obtaining a pass in the required practical activities.

Final grade: 100% final exam grade.

**Veterinary dermatology:**

The final grade is a weighted average (module 1 and 2 and final examination).

**Infectious diseases of dogs and cats:**

The final grade is 100% of the final examination grade.

The final grade for the module "Diseases of Dogs and Cats – Block 2" is the average of all of the grades given during the completion of the module elements, both in Block 1 and Block 2.

The grades obtained are entered in the Virtual Dean's Office, while written assignments are archived for a period of time in accordance with the regulations.