

General information	
Academic subject	<b>VETERINARY ANATOMICAL PATHOLOGY 3</b>
Degree course	Veterinary Medicine
Academic Year	2021/2022
European Credit Transfer and Accumulation System (ECTS)	2
Language	italian
Academic calendar (starting and ending date)	IV bimester
Attendance	Mandatory

Professor/ Lecturer	
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Virtual headquarters	team <b>b0nj9a8</b>
Tutoring (time and day)	by appointment to be agreed via email, on site or on Teams

Syllabus	
<b>Learning Objectives</b>	The objective of the course is to provide students with skills aimed at the ability to know how to detect the morphological variations that characterize the pathological processes of the organs, as well as their etiology and pathogenesis, to describe the lesions using the appropriate terminology and to know the various diagnostic levels that can be addressed with the techniques of Veterinary Pathological Anatomy
<b>Course prerequisites</b>	Knowledge of morphophysiology, acquired through the study of Anatomy and Physiology and knowledge of physiopathology acquired through the study of General Pathology To take the exam, it is necessary to have passed the preparatory exams.
<b>Contents</b>	The contents of the program pertain to the areas: Clinical Sciences of Companion Animals (including Horses and Exotics), Clinical Sciences in Food-Producing Animals (including Animal Husbandry and Herd Medicine) and Vocational Training.  Areas of application of pathological anatomy. Methods in pathological anatomy. Methods for the macroscopic interpretation of the main lesions: general evaluation of the organs (state of the serosa, volume, weight, shape); description of the lesions (colour, shape, surface appearance, consistency, size, distribution); interpretation of the lesions (degenerative-necrotic processes, benign and malignant neoplasms, acute inflammatory processes (serous, catarrhal, fibrinous, haemorrhagic, purulent, necrotizing, gangrenous) and chronic; formulation of the anatomo-pathological morphological diagnosis; Microscopic examination (examination Cytological Histopathological examination Histochemical examination Immunohistochemical examination Integumentary system.
<b>Books and bibliography</b>	1) P.S. Marcato: Patologia sistematica veterinaria. Edagricole, Milano 2015. 2) M.D. McGavin, J.F. Zachary: Patologia veterinaria sistematica. Elsevier, Milano 2010. 3) Guarda F., Mandelli G.: Trattato di anatomia patologica veterinaria, IV Edizione.UTET.
<b>Additional materials</b>	Color Atlas of Veterinary Pathology-General morphological reactions of organs and

	tissues.II Edition Van Dijk. J. E.; Gruys, E.; & Mouwen, J.
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<b>Work schedule</b>			
Total	Lectures	Hands on (Laboratory, working groups, seminars, field trips)	Out-of-class study hours/ Self-study hours
<b>Hours</b>			
50	13	25 (Exercises will be repeated in turns of about 6 students, on the bases of the total number of students)	12
<b>ECTS</b>			
2	1	1	
<b>Teaching strategy</b>		<p>The course is carried out in classrooms equipped with multimedia tools, through the projection of Power point slides with which the contents of the course are addressed.</p> <p>The practical lessons are of two types:</p> <ol style="list-style-type: none"> <li>1. exercises, in the sector room, on organs of animals for slaughter or on necropsies, to acquire manual skills and apply the concepts of macroscopic description; exercises in pathological anatomy laboratories to prepare, observe and evaluate histological and cytological samples;</li> <li>2. interactive sessions on projected images to acquire diagnostic skills.</li> </ol> <p>The practical lessons include access to the anatomical room which requires compliance with biosecurity standards and the use of personal protective equipment: white coat or disposable gown, disposable gloves, cap and goggles (optional), disposable footwear or rubber boots. It is preferable to have personal instruments (forceps, scalpels, scissors) during the practical exercises.</p>	
<b>Expected learning outcomes</b>			
<b>Knowledge and understanding on:</b>		<ul style="list-style-type: none"> <li>○ the student knows the methods of pathological anatomy and is able to recognize and describe the most significant alterations of tissues and organs;</li> <li>○ know the common cytological and histopathological diagnostic techniques</li> <li>○ the student knows the etiopathogenesis and the macro and microscopic morphological pictures of the main diseases related to the integumentary system</li> </ul>	
<b>Applying knowledge and understanding on:</b>		<ul style="list-style-type: none"> <li>○ the student recognizes and adequately interprets the nature of the lesions described, using the classical morphological parameters to detect and describe them (shape, volume, color, consistency, distribution) and hypothesize the diagnosis</li> <li>○ will know how to apply tissue sampling methods for cytological and histopathological diagnostic investigations</li> </ul>	
<b>Soft skills</b>		<ul style="list-style-type: none"> <li>• <b>Autonomy of judgment</b> <ul style="list-style-type: none"> <li>○ The student can recognize and describe with technical terminology the main macroscopic lesions observed on organs and tissues and is able to set up a differential diagnosis</li> </ul> </li> <li>• <b>Communication skills</b> <ul style="list-style-type: none"> <li>○ is able to argue with autonomy of judgment the merits and limits of the various diagnostic methods; you are able to evaluate their accuracy and predictive value</li> <li>○ expresses itself with scientifically appropriate terminology in the discussion and</li> </ul> </li> </ul>	

	<p>description of the lesions</p> <ul style="list-style-type: none"> <li>• Ability to learn independently</li> </ul> <p>o Is able to use complementary resources (veterinary pathology sites) to integrate, complete and enhance their training.</p>
<b>Assessment and feedback</b>	
Methods of assessment	<p>The student will be assessed on the basis of knowledge of the topics covered and the ownership of the technical terminology used.</p> <p>The verification of the knowledge and skills expected is carried out with an exam divided into: a practical exam which includes: 1. macroscopic recognition of species and anatomical recognition of organs; 2. description of the lesions detected and formulation of anatomico-pathological diagnosis on a single organ or cadaver; 3. Performing one of the appropriate sampling techniques for microscopic examination (histological / cytological); and at the same time as the practical test, an oral exam on topics from the program. During the interview, in-depth questions are asked relating to the pathologies mentioned. Particular attention is paid to the student's ability to think transversally and to connect the notions of the various parts of the teaching to each other.</p> <p>The assessment acquired in the module, together with that of the modules "Pathological Anatomy 1 and 2", and "Necropsy Technique", contributes to the determination of the final evaluation of the Pathological Anatomy exam.</p> <p>The final grade is expressed as the average of the marks obtained in the different parts of the exam.</p> <p>Failure to pass requires the candidate to repeat the entire exam.</p>
Evaluation criteria	<ul style="list-style-type: none"> <li>• Applied knowledge and understanding: <ul style="list-style-type: none"> <li>o the student will be assessed on the ability to adequately recognize and interpret the lesions found during the examination of organs and tissues during the practical test</li> <li>o will be assessed on the ability to apply tissue sampling methods for cytological and histopathological diagnostic investigations</li> </ul> </li> <li>• Autonomy of judgment: <ul style="list-style-type: none"> <li>o Will be evaluated on the ability to elaborate diagnostic hypotheses after recognizing and describing the lesions on the organs</li> </ul> </li> <li>• Communication skills: <ul style="list-style-type: none"> <li>o Will be assessed on the ability to argue with independent judgment the merits and limits of the various diagnostic methods; evaluate their accuracy and predictive value</li> <li>o Will be assessed on the ability to process a report</li> </ul> </li> <li>• Ability to learn: <ul style="list-style-type: none"> <li>o The student will be offered a pathological bowel or a photographic image that reproduces a lesion: he will have to recognize the organ and the species to which it belongs, identify the lesion and describe it using the standard international descriptive methodology presented during the course</li> </ul> </li> </ul>
Criteria for assessment and attribution of the final mark	<p>The mark is expressed out of thirty: the highest evaluations are attributed to students with good exposition skills, able to use the correct scientific terminology</p>



	and to elaborate a complete description of the lesion starting from the macroscopic part. The score is assigned on the basis of further knowledge on pathogenesis and etiology and on the ability to formulate the diagnosis and set differential diagnoses.
<b>Additional information</b>	