

ACADEMIC YEAR 2022/2023

General information	
Academic subject	GENERAL PATHOLOGY
Degree course	Master's Degree in Veterinary Medicine LM42
Academic Year	II
ECTS	5
Language	Italian
Academic calendar	IV 7 week term
Attendance	mandatory

Teacher	Email address	phone
<i>Antonella Perillo</i>	antonella.perillo@uniba.it	080-5443929
Department and address	Campus of Veterinary Medicine , S.P. 62 Casamassima km 3, Valenzano	
Virtual room	Teams platform access code 064028	
Tutoring (time and day)	On site or through Teams: Tuesday: 10.00-12.00; Wednesday: 14.00-15.00; Thursday: 10.00-12.00; 14-15.00.	

Syllabus	
Learning Objectives	<p>The general pathology and physiopathology course aims to propose, with the use of the appropriate medical-scientific terminology, the basic concepts of injury, damage and alteration in various animal diseases, so that students are able to understand the pathological and pathophysiological mechanisms underlying animal diseases.</p> <p>Students will be led, through theoretical teaching and possibly laboratory activities, to acquire:</p> <ol style="list-style-type: none"> the ability to understand the methods and mechanisms of damage production caused by several etiological agents; the ability to identify the damage response mechanisms caused by articulated cellular and tissue systems of a living organism together with its multiform molecular complexes; the basic techniques for discriminating the main alterations from both histological, cytological and macroscopic point of view, in order to make a morphological diagnosis; ability to communicate and pass on what has been learned; skills in the common diagnostic and biosafety procedures used by the pathologist (routine staining, special histochemical, immunohistochemical), developing the sampling, fixation and interpretation skills of histological preparations the fundamental principles of modern cellular and molecular pathology, as well as degenerative, inflammatory and neoplastic multicellular pathological processes, and cellular pathophysiology and mechanisms of organ pathology and integrated functions.
Course prerequisites	Physiology 2 Veterinary Microbiology and Immunology.
Contents of the teaching course: General Pathology and Physiopathology Teacher: Antonella PERILLO Lectures ECTS: 4	General concepts: definition, aims and limits of the general pathology. Concept of health, homeostasis and disease. Study tools and techniques in general pathology: histology, immunohistochemistry, biochemistry, molecular biology. Classification of the causes of disease. Diseases of intrinsic causes: hereditary diseases (pathological heredity) and non-hereditary congenital diseases, with relative examples in animal pathology. Diseases of extrinsic causes: physical, chemical, nutritional and biological. Physical agents as a cause of disease. Chemical agents as a cause of disease. Biological agents as a cause of disease.

Hours: 52		Pathology of regressive processes (atrophy, cellular degeneration, necrosis, apoptosis, pathological calcifications). Pathology of progressive phenomena: hypertrophy and hyperplasia. Fundamental biological and morphological characteristics of neoplastic processes. Inflammation: generalities and phlogogenic causes. Chemical mediators of inflammation. Fundamental biological aspects of inflammation: circulatory disturbances, exudative phenomena, histogenic phenomena, formation of the liquid component of the exudate, formation of the cellular component of the exudate. Acute and chronic inflammations. The various types of exudative inflammation. Granulomatous inflammation.	
Practical Activities and Exercises ECTS: 1 Hours: 13.		The practical activity, carried out mainly in the histopathology, oncology and immunohistochemistry laboratories and possibly in the anatomical room, will enable students to operate on samples and diagnose pathological processes and lesions.	
Biosecurity standards for the frequency of practical activities.		Access to the laboratories and the sector room is allowed only to students with protective clothing (gowns and disposable latex gloves) who have read the biosafety manual.	
Personal study material			
Reference texts		Marcato P. S., <i>Anatomia e Istologia Patologica</i> , Esculapio, 1997; McGavin M. D., Zachary J. F., <i>Patologia generale veterinaria</i> , Elsevier Masson, 2010.	
Notes to the reference texts		Additional teaching material will be provided by the teachers during the course.	
Work schedule			
Hours			
Total	Lectures	<i>Hands on (Laboratory, working groups, seminars, field trips)</i>	<i>Out-of-class study hours/ Self-study hours:</i>
125	65		60
ECTS			
5	5		
Teaching strategy		Theoretical lessons will focus on the topics in the program that will be exposed using the appropriate multimedia tools (personal computer, projector, use of the WEB). The practical activity will be carried out mainly in the histopathology and oncology laboratories and in the immunohistochemistry one and possibly in the anatomical room. Outside normal teaching hours, self-assessment tests are provided to verify the progress of acquisitions, ongoing exemptions and, where necessary, use of additional learning methods.	
Expected learning outcomes		At the end of the course, students will acquire: <ul style="list-style-type: none"> a) knowledge relating not only to the pathogenesis, but also to the underlying pathological mechanisms of animal diseases; b) ability to recognize and describe the pathogenetic and molecular mechanisms of cell and tissue damage in relation to the various etiological causes of disease. c) Ability to communicate and transmit what they have learned and to be able to continue their study path in full autonomy. 	

	d) Skills for the macroscopic recognition of the main characteristics of degenerative, inflammatory and neoplastic lesions of domestic animals through the visualization of macroscopic findings directly with the aid of macro-photographs, with the projection of histological findings (micro-photographs) and, where possible, with the use of the optical microscope.
Applying knowledge and understanding on:	At the end of the course, students will have acquired the ability to recognize and describe in a coherent and rational way the pathogenetic and molecular mechanisms of cell and tissue damage in relation to the various etiological causes of disease; the main processes that cause the onset of circulatory disorders, hemodynamic alterations and thermoregulation in pets; the basic principles of the genesis of the innate and acquired immune response and of the processes underlying the phenomena of hypersensitivity and autoimmune diseases (DOC. 2.5).
Soft skills	<p>A) Autonomy of judgment At the end of the course, students will be able to:</p> <ol style="list-style-type: none"> 1) review and critically evaluate the literature relating to teaching (DOC. 1.8); 2) show skills in the logical approach to scientific and pathological reasoning (DOC. 2.1). <p>B) Communication skills At the end of the course, students will have to demonstrate the ability to:</p> <ol style="list-style-type: none"> 1) work in a team, adopting adequate communication and interaction strategies (DOC. 2.11); 2) adopt different linguistic registers, including the technical-scientific one, to adequately communicate experimental results (DOC. 1.4); 3) autonomously learn and deepen topics of professional relevance (DOC. 1.13).

Summary of the skills that the course helps students acquire (Day One Competence) provided by the EAEVE.

Skills:
1.4
1.8
1.13
1.21
1.22
1.28
2.1
2.5
2.11

Assessment and feedback	
Methods of assessment	The examination of the General Pathology course allows the acquisition of 5 ECTS
Evaluation criteria	1.
Criteria for assessment and attribution of the final mark	The final grade of the General Pathology exam is closely related to the critical sense shown by the student in the discussion of the topics and to the medical-scientific language acquired during the assiduous attendance of the frontal course and practical activities. The final evaluation is expressed out of thirty; the exam, passed with a grade equal to or greater than 18, will take into account not only the accuracy of the answers, but also the communication skills, the clarity of presentation, the disciplinary competence and the level of in-depth analysis of the issues addressed.
Additional information	