

28423 - General Pathological Anatomy

Información del Plan Docente

Academic Year	2016/17
Academic center	105 - Facultad de Veterinaria
Degree	451 - Degree in Veterinary Science
ECTS	8.0
Course	3
Period	Annual
Subject Type	Compulsory
Module	---

1. Basic info

1.1. Recommendations to take this course

1.2. Activities and key dates for the course

2. Initiation

2.1. Learning outcomes that define the subject

2.2. Introduction

3. Context and competences

3.1. Goals

3.2. Context and meaning of the subject in the degree

3.3. Competences

3.4. Importance of learning outcomes

4. Evaluation

5. Activities and resources

5.1. General methodological presentation

The learning process that is designed for this subject is based on:

a) Lectures: The topics tackled in this course will be presented, explained and discussed in 50 minute lectures where ppt presentations will be used for image support.

b) Practical classes: Students enrolled in General Pathology undertake 4 types of compulsory internship:

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1. Necropsies. Students should be able to perform systematic and complete opening of the animal carcass.
 2. Demonstration of macroscopic lesions from slaughterhouse. Identify and describe the different types of injuries that can be found in livestock species slaughtered at the abattoir.
 3. Histopathology. Microscopic changes that support the macroscopic study and contribute to a better understanding of the meaning of the lesions studied.
 4. Seminars.
- c) Tutorials: Consultations with a teacher to clarify issues related to the subject.

5.2.Learning activities

The learning process that is designed for this subject is based on: Lectures, Practical classes and Tutorials (see 5.3. Program)

5.3.Program

Course syllabus

THEORY

Part I - Introduction.

01. Objectives: Guide of the subject
02. General concepts: General Pathology. Antemortem and postmortem lesions

Part II - Adaptation, damage and cell death.

03. Adaptation cell damage and cell death: Cellular adaptation. Causes of damage. Irreversible cell damage. Apoptosis and necrosis.
04. Adaptation cell damage and cell death: Chronic cellular adaptation: Atrophy. Hypertrophy. Hyperplasia. Metaplasia.
05. Pathological Deposits: Disturbances in water exchange and glycogen stores.
06. Pathological Deposits: Lipids.
07. Pathological Deposits: Proteins.

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08. Pathological Deposits: Pigments

09. Pathological Deposits: Minerals.

Part III - Circulatory disorders.

10 Active and passive hyperaemia. Oedema

11. Haemorrhage: Types. Consequences. Evolution.

12. Thrombosis and disseminated intravascular coagulation (DIC).

13. Embolism. Types and consequences.

14. Anaemia, ischemia and infarction: Concept. Types. Consequences and evolution.

15. Lymphatic circulation disorders

16. General disorders of blood circulation. Shock.

Part IV - Inflammation and repair.

17. Inflammation: General concepts. Causes. Terminology and classification

18. Acute inflammation.

19. Chemical mediators of inflammation.

20. Morphological patterns of acute inflammation (I): Serous. Fibrinous.

21. Morphological patterns of acute inflammation (II): Mucous. Purulent. Hemorrhagic.

22. Morphological patterns of acute inflammation (III): Mixed forms of inflammation. Evolution of acute inflammation.

23. Chronic inflammation. Morphological patterns of chronic inflammation.

24. Granulomatous and not granulomatous inflammation.

25. Resolution of inflammation: (I) Regeneration. (II) Repair or cicatrization.

Part V - Disturbances development.

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26. Aplasia, hypoplasia. Congenital malformations.

Part VI - Neoplasms.

27. Definition and general concepts. Characteristics of benign and malignant tumours.

28. Evolution of neoplasms

29. Stromal tumour and immune response.

30. Effects of tumours in the host.

31. Molecular basis of neoplasms.

32. Cancer Aetiology.

33. Epithelial and glandular tumours.

34. Connective tissue tumours.

35. Lymphohematopoietic, endocrine and nervous tumours.

Part VII - Immunopathology.

36. Immunodeficiency diseases

37. Hypersensitivity diseases

38. Autoimmunity diseases

Part IX - Introduction to systemic pathology.

39. Systemic pathology of the circulatory system

40. Systemic pathology of the respiratory tract

41. Systemic pathology of the digestive tract

42. Systemic pathology of the urinary system

43. Systemic pathology of the nervous system

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44. Musculoskeletal systemic pathology

LABORATORY PRACTICAL CLASSES WITH THE FOLLOWING CONTENTS:

1) Necropsies

Students will conduct systematic and complete necropsies of mammals and birds. 10 hours per student is scheduled for this practice activity

* For access to the necropsy room it is essential to wear nitrile or latex gloves, high rubber boots, overalls and goggles. For security reasons access to anyone not suitably equipped it will be prevented.

2) Macroscopic lesions. 4 hours per student is scheduled for carrying out this activity.

3) Histopathology. 8 hours per student is scheduled for carrying out this activity.

4) Seminars. 8 hours per student is scheduled to perform this activity.

5.4.Planning and scheduling

http://veterinaria.unizar.es/horarios1.php?COD_TITULACION=6

5.5.Bibliography and recommended resources

<http://psfunizar7.unizar.es/br13/eBuscar.php?tipo=a>