

## VETERINARY FORENSIC AND NECROPSY DIAGNOSIS (ANUL V)

Number of credits 4

### Structure of discipline (no. hours/week)

Year of study / Semester	Lecture	Laboratory (clinics)	Individual study	Total hours/year <sup>3</sup>
V/10	28	42	50	120

### Status of discipline

Mandatory

### Course coordinator

Associate professor dr. LAZĂR Mircea

### General objectives

1. Explaining the importance of legal medicine in veterinary medicine and understanding the necessity and conditions under which euthanasia is applied.
2. Knowledge of veterinary legal expertise (and probation), forensic analysis elements recommended in veterinary forensic toxicology, as well as the identification of the disease-causing diseases in animals.
3. Know and understand how to install death and appreciate the moment of death.
4. Knowledge of the main tanatogenerator mechanisms.
5. Knowledge of the causes and morphology of the main categories of injuries produced by violence.
6. Forming skills of action type in the execution of techniques for opening, evisceration and examination of mammals and birds corpses for establishing a conclusive or suspicious necropsy diagnosis, the cause of death and the type of death installed.
7. Taking techniques for extracting samples for additional laboratory examinations required by forensic expertise or current etiology.
8. Acquiring the way of designing and drafting documents required by forensic expertise or current diagnostic practice.
9. Developing communication skills with animal owners and assessing the situation for decision-making in relation to the nature of each necropsy case.

### Content of the course

Lectures (Chapter/subchapters)		Hrs.
<b>1<sup>st</sup> Semester</b>		
Introduction	<ul style="list-style-type: none"><li>- The social role of veterinary forensic medicine</li><li>- The importance of forensic medicine in medical practice</li><li>- Euthanasia at animals</li><li>- The medico-legal examination and the documents of juridical use</li></ul>	2

Elements of expertise (and probation) of veterinary forensic medicine	<ul style="list-style-type: none"> <li>- Basic principles of expertise of the veterinary forensic medicine</li> <li>- Scientific probation, identification and implementation issues in practicing veterinary forensic medicine</li> <li>- Proper research of the crime scene</li> <li>- Harvesting, packing, storing and transportation of pathologic materials intended for the investigations of the veterinary forensic medicine</li> <li>- Techniques for the examination of animal tissues and biological products</li> </ul>	4
Basic medico-legal lesions, specific characters, possibilities for evolution and their importance in the forensic investigation, notions of veterinary forensic traumatology	<ul style="list-style-type: none"> <li>- Closed (non-penetrating) trauma: excoriation, contusion, ecchymosis, hematoma, fractures, types of non-penetrating lesions produced by specific physical agents (fall injuries, road, lesion specific to them);</li> <li>- Open (penetrating) trauma: excoriation, dilation, avulsion, wounds (by stabbing, cutting, shooting, punching, mixed wounds); surgical and diagnostic wounds, wounds resulting from self-mutilation or mutilation (ritual injuries).</li> <li>- Trauma caused by burns: thermal, electrical, chemical, irradiation (ionizing or light), smoke inhalation injuries.</li> <li>- Lesional painting of death by asphyxia: hanging, strangulation, suffocation, drowning.</li> <li>- The general lesional picture of death by poisoning: intentional poisoning, evidence and history, diagnosis, substances frequently used for deliberate killing of animals.</li> <li>- Lesional general picture produced by biological aggression: the lesions characteristic of predatory predation</li> </ul>	4
Pigs diseases	viral diseases, bacterial diseases, parasitic diseases, mycosis, mycotoxicosis, nutrition and metabolic diseases	4
Birds diseases	viral diseases, bacterial diseases, parasitic diseases, mycosis, mycotoxicosis, nutrition and metabolic diseases	4
Dogs diseases	viral diseases, bacterial diseases, parasitic diseases, mycosis, mycotoxicosis, nutrition and metabolic diseases	4
Cats diseases	viral diseases, bacterial diseases, parasitic diseases, mycosis, mycotoxicosis, nutrition and metabolic diseases	2
Cattle diseases	viral diseases, bacterial diseases, parasitic diseases, mycosis, mycotoxicosis, nutrition and metabolic diseases	2
Horses diseases	viral diseases, bacterial diseases, parasitic diseases, mycosis, mycotoxicosis, nutrition and metabolic diseases	2

<b>Laboratory</b>	<b>Hrs.</b>
<b>1<sup>st</sup> Semester</b>	
Labor protection Necropsy room Necropsy kit - necessary logistics for the necropsy exams Death Decontamination after necropsy	3

Postmortem changes Opening, eviscerating and examination techniques of the bird and mammal corpses Examination techniques of the organs Harvesting and fixing of the organs Necropsy report Bulletins of analysis	3
Necropsy diagnosis exercises in dogs and cats	9
Necropsy diagnosis exercises in pigs	9
Necropsy diagnosis exercises in ruminants	9
Necropsy diagnosis exercises in birds	9

### Teaching-working methods

Lecture - power-point presentation, interactive, comments, case study

Practical work - Necropsy, video materials, posters, software with alternative methods of study, comments, case studies, brainstorming

### Evaluation method

Assessment Type	Evaluation forms	Percentage of final grade (%)
Exam	Written	80%
Ongoing evaluation/Course presence	Oral/ Necropsy	20%

### BIBLIOGRAPHY

**M.V.M.** - *The Merck veterinary manual*. Merial Ltd., New York, 1998

**Marcelo De las Heras Guillamon, Jose Antonio Garcia de Jalon** – *A guide to necropsy diagnosis in swine pathology*. Elanco Animal Health, USA, 2002

**Melinda D. Merck** – *Veterinary Forensic*. Blackwell Publishing, UK, 2007

**Mircea Lazăr** – Course notes, Iași

**Lazăr Mircea, Ozana Hrițcu, Lazăr Roxana** (2019) - *Veterinary necropsy*. Ed. Ion Ionescu de la Brad, pg. 155, Iași, ISBN 978-973-147-332-1

### Contact person

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