Course Unit Descriptor

**Study Programme:** Veterinary medicine

**Course Unit Title:** Clinical veterinary toxicology

**Course Unit Code:** 3DVM4I55

**Name of Lecturer(s):** Full professor Stojanović M. Dragica

**Type and Level of Studies:** doctoral studies

**Course Status (compulsory/elective):** elective

**Semester (winter/summer):** 6

**Language of instruction:** English

**Mode of course unit delivery (face-to-face/distance learning):** Face-to-face

**Number of ECTS Allocated:** 8

**Prerequisites:** Scientific research methods, Biostatistics, Courses of elective blocks 1 and 2

**Course Aims:**

The aim of this course is to provide students the latest scientific and technical knowledge of the possibilities of contamination of animals and humans to pesticides (insecticides, herbicides, rodenticides, fungicides, moluscids), drugs, chemical substances of animal feed, industrial chemicals, metals and minerals, toxic plants and their active principles, toxins derived from animals and others; their toxicokinetics, mechanism of action, the degree of toxicity of the various types of domestic and wild animals and the risk of intoxication. Also, the aim of the course is to train students to recognize the clinical symptoms of poisoning, and set up a diagnosis of poisoning using biochemical and hematological, chemical and toxicological findings of blood, urine, feces, milk, food, or water content of the digestive system and the organs or parts of bodies of dead animals. The main aim of the course is to teach students to apply the appropriate specific or non-specific therapy for the majority of toxicants which animals are exposed.

**Learning Outcomes:**

The course outcome is training students knowledge of prevention methods and treatment of poisoning.

**Syllabus:**

*Theory*

Toxicokinetics of xenobiotics, the effect of toxic substances (biotoxins, pesticides, pharmaceuticals, industrial chemicals, animal feed additives, metals and minerals, herbs, etc.) and their effects on cardiovascular system and blood, gastrointestinal, hepatobiliary, nervous system, reproductive, respiratory, urinary, muscular-sceletal, endocrine system, skin and mucous membranes. Effects of toxins on each of these organ systems include: mechanism of action, toxicity and risk factors for animals and humans, clinical image of poisoning, changes in biochemical parameters of blood and animal excrement, blood, pathomorphological and histological differential diagnosis, setting the final poisoning diagnosis, treatment, prognosis and prevention of poisoning.

*Practice*

Organotoxicology. Mechanisms of action poison. Methods for diagnosing poisoning and substance toxicity.

**Required Reading:**

1. Clinical veterinary toxicology, Plumlee, H. K., Mosby, 2004.
2. Small animal toxicology and poisonings, Roger Gfeller W., Shawn Messonnier P., Mosby Inc., 2003.

| **Weekly Contact Hours:** | **Lectures: 4** | **Practical work: 4** |
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**Teaching Methods:**

Oral presentation with video beam presentation. Students prepare term paper and oral expose it with public comment.

**Knowledge Assessment (maximum of 100 points):**

| **Pre-exam obligations** | points | **Final exam** | points |
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| Active class participation | | written exam | 30 |
| Practical work | | oral exam | 70 |
| Preliminary exam(s) | | ……. | |
| Seminar(s) | | | |
| The methods of knowledge assessment may differ; the table presents only some of the options: written exam, oral exam, project presentation, seminars, etc. | | | |