Course Unit Descriptor

Study Programme: Veterinary medicine

Course Unit Title: Breeding and care of laboratory animals

Course Unit Code: 3IVM3I84

Name of Lecturer(s): Dr Zdenko Kanački, associate professor

Type and Level of Studies: Undergraduate academic studies

Course Status (compulsory/elective): Elective

Semester (winter/summer): Winter

Language of instruction: English

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

Number of ECTS Allocated: 3

Prerequisites: None

Course Aims: The subject enables student to acquire: 1. knowledge of the morphological and physiological characteristics of laboratory animals, planning, implementation and legal and ethical standards of performing experiments on laboratory animals, as well as the their breeding and management; 2. manipulation skills with laboratory animals; 3. skills to solve specific tasks related to the cultivation and planning of experiments on laboratory animals.

Learning Outcomes: Upon completion of the course from the subject student should be able to: 1. define and explain concepts related to work with laboratory animals; 2. describe and analyze the different ways of keeping and breeding of laboratory animals; 3. implement methods and techniques for the manipulation of laboratory animals; 4. solving specific tasks related to planning and carrying out experiments on laboratory animals; 5. successfully attending classes at the professional-application cases that require knowledge in this field.

Syllabus:

Theory: Basics of the laboratory animals science; Planning, design and experimental types of experiments on animals; Extrapolation of the results and standardization experiments on animals; Ethical aspects of experiments on animals; Legislation; Alternative methods; Health monitoring of persons working with animals; Biological characteristics of experimental animals; Cultivation of laboratory animals; Experimental procedures and biological experiment; Principles of laboratory animal production; Nutrition of laboratory animals; Pathology, prevention and rehabilitation of laboratory animals.

Practice: Biomedical basis of experimental work with experimental animals; Biological characteristics of laboratory animals; Growing and feeding of laboratory animals; Nursery, vivarium, terrarium, aquarium; Methods of administration of medicaments and agents; Fixation; Taking blood samples; Sampling discharges; Sampling tissues and organs; The sacrifice of laboratory animals.

Required Reading:

- 1. Enqui L., Jianglin F.: Fundamentals of Laboratory Animal Science. Taylor & Francis Group, New York, 2018.
- 2. Stevanović, Đ.: Osnovi nauke o laboratorijskim životinjama. Dr Stevanović, Beograd, 2002.
- 3. Stevanović, D.: Biologija i patologija gajenja laboratorijskih životinja. Dr Stevanović, Beograd, 2003.
- 4. Stevanović, Đ.: Metode i tehnike rada sa laboratorijskim životinjama. Dr Stevanović, Beograd, 2004.

Weekly Contact Hours: 4 Lectures: 2 Practical work: 2

Teaching Methods: Lectures and practical classes.

Knowledge Assessment (maximum of 100 points):

Pre-exam obligations	points	Final exam	points
Lecture attendance	5	written exam	70
Exercise attendance	5		
Seminar(s)	20		

The methods of knowledge assessment may differ; the table presents only some of the options: written exam, oral exam, project presentation, seminars, etc.