## Course Unit Descriptor

Study Programme: Veterinary Medicine

Course Unit Title: Principles of cell biology

Course Unit Code: 3IVM1I78

Name of Lecturer(s): Gordana M. Ušćebrka, PhD, Full Professor; Slobodan Z. Stojanović, PhD, 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: 3,5** 

Prerequisites: None

### **Course Aims:**

1. knowledge in the area of cell structure and cell components, cell organization and basic methods of cell examination; 2. skills to recognize the characteristic cell structures using microscope, which influence the cell organization; 3. the ability to understand the interconections between cell components, their significance for cell function, as well as the principles on which are based methods for cell examination.

## **Learning Outcomes:**

Upon completion of the course of this subject and passing the exam, student should be able to: 1. define and explain the terms from the field of cell, cell organelles and cell organization; 2. describe the basic methods for cell examination; 3. analyze the structure of cells and cell organelles; 4. establish a mutual connection between cell organelles as well as their influence on cell organization and function of systems of organs; 5. apply knowledge and skills in further studies in veterinary medicine, particularly in the field of pathological morphology, diagnosis, and others.

### **Syllabus:**

Theory

Introduction, Chemical and physico-chemical organization of cell, Methods of cell examination, Cell and extracellular matrix as basic part of multicellular organisms, Molecular mechanisms in cell biology

# Practice

Chemical and physico-chemical organization of cell, Methods of cell examination, Cell, Extracellular matrix, Molecular mechanisms in cell biology

### **Required Reading:**

- 1. Pantić, V. (1997) Biologija ćelije. Univerzitet u Beogradu.
- 2. Чалдьков, Г. (1996) Клетьчна биология. Медицински факултет. Варна.
- 3. Eurell, J. A., Frappier, B. L.: Dellmann's Textbook of Veterinary Medicine. Blackwell Publishing, 2006.
- 4. Junqueira, L., C. Carneiro, J.: Osnovi histologije. Data Status, Beograd, 2005.

5. Петренко, А.Ю., Хунов,Ю.А., Иванов, З.Н. (2011) Стволовые клетки. Луганск "Пресс-экспресс". Weekly Contact Hours: 4 Lectures: 2 Practical work: 2

### **Teaching Methods:**

Lectures, Practical classes, Consultations, Research work

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

Pre-exam obligations	points	Final exam	points
Active class participation	4	written and oral exam	56
Tests	2x20		