

Study Programme: Veterinary Medicine			
Course Unit Title: Basics of laboratory techniques in morphology			
Course Unit Code: 3IVM3I83			
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			
Prerequisites: Anatomy 1, Histology and embryology 1			
Course Aims: The subject enables student to acquire: 1. knowledge in the field of basic laboratory techniques used in morphology; 2. sampling skills and ways of marking them, as well as the the analysis of the test results; 3. the ability of proper selection of certain laboratory methods for qualitative and quantitative determination of the changes in the tissues and organs.			
Learning Outcomes: Upon completion of the course from this subject and passing the exam, student should be able to: 1. define and explain the concepts in the field of basic laboratory techniques used in morphology; 2. describe the basic laboratory techniques used in morphology; 3. analyze the the principles underlying the specific laboratory techniques; 4. determine the mutual relationship between the morphological changes that need to be quantified and choice of suitable laboratory technique; 5. apply knowledge and skill of in the further studies in veterinary medicine, particularly in the field of diagnostics, etc.			
Syllabus: <i>Theory</i> Sampling for analysis in microscopic anatomy. Tissue sampling and procedure for preparing living tissues for classical microscopic examination of paraffin sections. Sample fixation and storing. Processing and paraffine embedding of samples in classical histological technique. Cutting technique of paraffine embedded sections on microtome. Staining techniques of paraffine sections and analysis of histological preparations. Processes of making and storing of stains for classical staining techniques. «H&E» staining techniques. Staining procedures with other methods in classical histological techniques. <i>Practice</i> Tissue sampling for classical microscopic examination of paraffin sections. Sample fixation and storing. Processing and paraffine embedding of samples in classic histological technique. Cutting technique of paraffine embedded sections on microtome. Staining techniques of paraffine sections and analysis of histological preparations. Processes of making and storing of stains for classical staining techniques. «H&E» staining techniques. Staining procedures with other methods in classical histological techniques.			
Required Reading: 1. Bancroft, J. D.: An Introduction to Histochemical Technique. Butterworths, London, 1996. 2. Disbrey, B. D., Rack, J. H.: Histological Laboratory Methods. E&S Livingstone, Edinburgh and London, 1999. 3. Eurell, J. A., Frappier, B. L.: Dellmann's Textbook of Veterinary Medicine. Blackwell Publishing, 2006. 4. Junqueira, L., C. Carneiro, J.: Основи хистологије. Дата Статус, Београд, 2005. 5. Tasić, V.: Osnovne histohemijske metode u patohistologiji. Lela, Beograd, 1994.			
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		