

Study Program: Biology				
Type and level of studies: Bachelor studies				
Course name: Laboratory course in cytology and histology				
Lecturer: Labus Đ. Nenad				
Status: Compulsory				
ECTS: 6				
Attendance Prerequisites: Cellular biology				
Course aims Introducing the methods of making permanent microscopic preparations in histology and histochemistry. Learning to use the basic knowledge of cytology and histology in studying problems of certain relations of structure and function of anatomical units.				
Course outcome The students are able to create permanent microscopic preparations; they understand the notion and the purpose of fixation; they can handle basic laboratory equipment (cytology and histology) such as microtome and cryostat, they have mastered the staining methods in histology and histochemistry.				
Course content <i>Theoretical part:</i> Introduction to the methods of direct observation of cells and tissues in non-stained and in vivo preparations. Fluorescence, confocal and multiphoton microscopy. Fixation in histology and histochemistry. Staining in histology. Chemical basis of staining histological slide samples. Histochemical methods. Immunohistochemical methods. Cell and tissue culture. Isolation and culturing of cells in culture. Regeneration. Transplantation. <i>Practical Part: Exercises, Other forms of teaching, research work</i> Introduction to histological technique. Cryostatic procedures for obtaining permanent microscopic preparations. Tissue fixation. Moulding in paraffin. Microtome and rotary microtome. Staining of histological specimens. Mounting the cross-section. Histochemical and immunohistochemical methods.				
Literature 1. Лалошевић, Д. (2005). Микроскопска лабораторијска техника у медицини. WUS, Аустрија. 2. Швоб, М. (1974). Хистолошке и хистохемијске методе. Свјетлост, Сарајево				
Number of active classes				Other classes
Lectures: 2	Practical classes: 2	Other forms of teaching:	Students' research work	
Teaching methods Theoretical classes, practical classes, term tests.				
Assessment (maximum 100 points)				
Course assignments	points	Final exam		points
activity during lectures	10	written exam		20
practical classes	10	oral exam		30
Term test/s	20			
Seminar/s				
Total	40			50
Knowledge assessment is not limited to methods suggested in this table (oral and written exams, presenting projects, seminars, etc.).				