

Study Programme: BSc in Biology		
Course Unit Title: BASIC MOLECULAR AND CELLULAR IMMUNOLOGY		
Course Unit Code: OB056		
Name of Lecturer(s): Prof. Dr Tatjana Kostic, Prof. Dr Silvana Andric		
Type and Level of Studies: Bachelor degree		
Course Status (compulsory/elective): Compulsory		
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: 6		
Prerequisites: -		
Course Aims: Objective of this course is to study the fundamental mechanisms of immune system on the molecular and cellular level.		
Learning Outcomes: At the end of this course students will be able to understand and describe the basic mechanisms of the immune system functions on molecular and cellular level, as well as to acquire ability to understand the scientific hypothesis and experimental results in immunological investigations.		
Syllabus: <i>Theory</i> Functional organization of the immune system. Recognition of antigens. Maturation, activation and regulation of lymphocytes. Effective mechanisms of the innate and adaptive immune response. Immune system in disease (immune response against tumors and against diseases which are caused by immune response). <i>Practice</i> Isolation and cultivation of the lymphocytes. Immunization. Determination of the ABO-Rh blood groups. Quantitative analysis of antigens. Antigen detection in cells and tissues. Work on the short scientific project in the field of molecular and cellular immunology.		
Required Reading: Kostic T & Andric S (2007): Molecular and Cellular Immunology (script). WUS Austria. Abbas AK & Lichtman AH (2007): Basic Immunology. WB Saunders Company. Wood P (2006): Understanding Immunology 2ed. Pearson Prentice Hall. Mahon RC & Tice D (2006): Clinical Laboratory Immunology. Pearson Prentice Hall. Janeway CA, Travers P, Walport M, Shlomchik MJ (2005): Immunobiology 6ed: The Immune System in Health and Disease with CD-ROM. Churchill Livingstone. Paul EW (2003): Fundamental Immunology. Lipincott Williams & Wilkins Sompayrac L (2003): How the Immune System Works. Blackwell Publishing. Rott IM & Delves PJ (2001): Essential Immunology. Blackwell Publishing.		
Weekly Contact Hours:	Lectures: 2	Practical work: 2
Teaching Methods: Theoretical part - Lectures Practical part – Combination of laboratory work and computer simulations Seminars - Short presentation of the specified topics		
Knowledge Assessment (maximum of 100 points):		

Pre-exam obligations	points	Final exam	points
Active class participation		written exam	40
Practical work	40	oral exam	20
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.