

Course Unit Descriptor

Study Programme: Biology		
Course Unit Title: Cell Biology		
Course Unit Code: OBE001		
Name of Lecturer(s): Assistant Professor Nebojsa Andric		
Type and Level of Studies: Bachelor Academic 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: None		
<p>Course Aims:</p> <p>Cell Biology is the basic course for other courses in morphology, anatomy, physiology, biochemistry, genetics, evolution, and ecology of living organisms. Learning objective of this course is to provide students with fundamental knowledge in structure, ultrastructure and function of acellular (viruses, prions and viroids), procariotic (bacteria and cyanobacteria) and eucariotic (fungi, algae, animal and plant) cellular forms.</p>		
<p>Learning Outcomes:</p> <p>After completion of the course, it is expected that the students: (i) describe structure and function of procariotic and eucariotic cells; (ii) describe the relationship between the molecular structure and the function of cells.</p>		
<p>Syllabus:</p> <p><i>Theory</i></p> <p>Introduction to Cell Biology, Methods in Cell Biology, Acellular Life Forms, Procariotic Cellular Forms, Eucariotic Cellular Forms, Organization of Animal Cells, Membranes And Transport, Cell Structures, Cytoskeleton, Centrioles, Flagellae And Cilliae, Ribosomes, Endoplasmic Reticulum, Golgi Complex, Peroxisomes, Nucleus, Cell Cycle, Cell Death, Plant Cells.</p> <p><i>Practice</i></p> <p>Acellular Life Forms-Viruses. Acellular Life Forms-Prions And Viroids. Procariotic Cell-Bacteria. Procariotic Cell-Cyanobacteria. Eucariotic Cell-Algae. Eucariotic Cell-Fungi. Animal Cell-Structure of Animal Cell, Nucleus And Nucleolus. Animal Cell-Cell Membrane. Animal Cell- Endoplasmic Reticulum And The Golgi Apparatus. Animal Cell-Lysosomes and Peroxisomes. Animal Cell-Mitochondria And The Cyotskeleton. Animal Cell-Centiroles, Cilliae And Flagellae. Plant Cell-Cell Wall And The Plasmodesmata. Plant Cell-Cytoplasm And Plastids. Plant Cell-Vacuole, Turgor, Plasmolysis.</p>		
<p>Required Reading:</p> <p>1. Essential Cell Biology, Bruce Alberts, Dennis Bray, Karen Hopkin, Alexander D Johnson, Julian Lewis, Martin Raff, Peter Walter 4th Edition- Garland Science (2013)</p>		
Weekly Contact Hours:	Lectures: 2	Practical work: 2
<p>Teaching Methods:</p> <p>Lectures and students group work</p>		
Knowledge Assessment (maximum of 100 points):		

Pre-exam obligations	points	Final exam	points
Active class participation	2.5	written exam	70
Practical work	7.5	oral exam	
Preliminary exam(s)	20	
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.