

NAME OF THE COURSE		Biology in forensic sciences				
Code	PFZ203	Year of study	2			
Course teacher	Damir Marjanović, Ph.D., professor	Credits (ECTS)	6			
Associate teachers	Josip Crnjac, B.A. in biology Livia Slišković, M.Sc. in forensics	Type of instruction (number of hours)	L	S	E	F
			30	15		
Status of the course	Mandatory	Percentage of application of e-learning				
COURSE DESCRIPTION						
Course objectives	Through this course, students will acquire knowledge about the differences between prokaryotic and eukaryotic cells, their origin and the evolution of the living world. Students will learn about the similarities and differences of plant and animal cells as well as organisms that evolved from these two cell types as well as learn about living communities and ecosystems.					
Course enrolment requirements and entry competences required for the course	The conditions for enrollment are the acquired conditions for enrollment in the second year of study.					
Learning outcomes expected at the level of the course (4 to 10 learning outcomes)	<ul style="list-style-type: none"> <li>- Distinguish the structure of prokaryotic and eukaryotic cells</li> <li>- Compare the similarities and differences in the way cells divide</li> <li>- Distinguish the life cycles of plants and animals</li> <li>- Explain the evolutionary processes and origins of life on Earth</li> <li>- Compare the meanings of plants and animals in forensics</li> </ul>					
Course content broken down in detail by weekly class schedule (syllabus)	Topics				hours	
	Introductory lecture				1	
	Traits and organizational levels of living beings				2	
	The chemical basis of the living world				2	
	The origin of life on Earth				2	
	Prokaryotic and eukaryotic cells				3	
	Cellular organelles and their role				3	
	Cell division - mitosis and meiosis				3	
	Plant and animal life cycles				3	
	Importance of animals in forensics with emphasis on entomology				3	
	Plants and plant tissues				3	
	Plant world and organization of living communities				3	
	The importance of plants in forensics				2	
Seminar paper: Processing of given topics and preparation and presentation of independent work				15		

Format of instruction	<input checked="" type="checkbox"/> lectures <input checked="" type="checkbox"/> seminars and workshops <input type="checkbox"/> exercises <input type="checkbox"/> <i>on line</i> in entirety <input type="checkbox"/> partial e-learning <input type="checkbox"/> field work	<input checked="" type="checkbox"/> independent assignments <input checked="" type="checkbox"/> multimedia <input type="checkbox"/> laboratory <input type="checkbox"/> work with mentor <input type="checkbox"/> (other)				
Student responsibilities	The student is obliged to attend and regularly follow the classes and carry out the given tasks. During the semester, records of class attendance are kept. The condition for taking the exam is a minimum of 70% attendance of the total number of classes.					
Screening student work ( <i>name the proportion of ECTS credits for each activity so that the total number of ECTS credits is equal to the ECTS value of the course</i> )	Class attendance	1	Research		Practical training	
	Experimental work		Report		(Other)	
	Essay		Seminar essay	2	(Other)	
	Tests		Oral exam		(Other)	
	Written exam	3	Project		(Other)	
Grading and evaluating student work in class and at the final exam	Students will be evaluated for attending classes in the amount of 10% of the total grade, seminar paper in the amount of 20% of the total grade and the result achieved in the exam in the amount of 70% of the total grade.					
Required literature (available in the library and via other media)	<b>Title</b>		<b>Number of copies in the library</b>	<b>Availability via other media</b>		
	1. Geoffrey M. Cooper, Robert E. Hausman – Cell-molecular approach, Medicinska naklada (2010)					
	2. D. Denffer & H. Ziegler: Botanika (Morfologija I Fiziologija), Školska knjiga, Zagreb, 1982					
Optional literature (at the time of submission of study programme proposal)	Materials from lectures and practical work					
Quality assurance methods that ensure the acquisition of exit competences	<ul style="list-style-type: none"> <li>- Analysis of study success in all study subjects</li> <li>- Student survey on the quality of teachers and teaching</li> <li>- The exam conducted by the subject teacher checks all learning outcomes</li> </ul>					
Other (as the proposer wishes to add)						

2. D. Denffer & H. Ziegler: Botanika (Morfologija I Fiziologija), Školska knjiga, Zagreb, 1982