NAME OF THE COURSE	General Biology						
Code	PMB065	Year of study	1				
Course teacher	Prof. Jasna Puizina, PhD	Credits (ECTS)	3				
Associate teachers		Type of instruction (number of hours)	L	S	E	F	
			30		15		
Status of the course	Elective	Percentage of application of e-learning	10%				

COURSE DESCRIPTION

Course objectives	Introducing students to the relationships of living and non-living nature. Understanding the basic principles of cell biology. Mastering the basics of genetics and ecological relationships between organisms.
Course enrolment requirements and entry competences required for the course	None.
Learning outcomes expected at the level of the course (4 to 10 learning outcomes)	After successfully passing the course, students will be able to: • Recognize the importance of living organisms in relation to the environment • Master basic knowledge of cell biology and evolution of organisms • Interpret basic genetic principles • interpret how environmental changes affect ecosystem changes
Course content broken down in detail by weekly class schedule (syllabus)	• Living and non-living nature (3 + 1 h). • Prokaryotes, eukaryotes, plant-animal relationships (3 + 1h). • Membrane and transports across membrane, nucleus, nucleus DNA, RNA, Central dogma of molecular biology. • (3 + 1h). • Endoplasmic reticulum, Golgi apparatus, lysosomes (3 + 1h). • Mitochondria - respiration, chloroplasts - photosynthesis, peroxisomes (3 + 1h). • Cell cycle, mitosis, meiosis (spermatogenesis, oogenesis), fertilization (3 + 1h). • Embryonic development, genetic regulation, model of operon, differentiation in plants and animals (3 + 1h). • Aging and death, viruses (HIV), tumors (3 + 1h). • Basics of inheritance, Mendel's laws, mutations (3 + 1h). • Ecological concepts and relations of organisms in biocenoses (3 + 1h).
Format of instruction	☒ lectures ☐ seminars and workshops ☒ exercises ☐ *on line* in entirety ☐ partial e-learning ☐ field work ☐ independent assignments ☐ multimedia ☒ laboratory ☐ work with mentor ☐ (other)
Student responsibilities	Students should attend all exercises and at least 70% of lecture hours. They should have a notebook, work coat, drawing utensils and all laboratory exercises must be recorded in a notebook. They need to pass 2 written colloquia or one written exam.

Screening student work *(name the proportion of ECTS credits for each activity so that the total number of ECTS credits is equal to the*						
	Class attendance	0.5	Research		Practical training	
	Experimental work	1	Report		(Other)	
	Essay		Seminar essay		(Other)	
	Tests		Oral exam		(Other)	

<table>
<tr><td>ECTS value of the course)</td><td>Written exam</td><td>1.5</td><td>Project</td><td></td><td>(Other)</td><td></td></tr>
<tr><td>Grading and evaluating student work in class and at the final exam</td><td colspan="6">Max.100 points = 70 points (lectures) + 30 points (exercises)
90% - 100% grade 5 (excellent)
78% - 89% grade 4 (very good)
66% - 77% grade 3 (good)
55% - 65% grade 2 (sufficient)
< 55% grade 1 (insufficient).</td></tr>
<tr><td rowspan="3">Required literature (available in the library and via other media)</td><td colspan="3">Title</td><td>Number of copies in the library</td><td colspan="2">Availability via other media</td></tr>
<tr><td colspan="3">1. Cooper, G.M., Hausman, R.E., 2015:, Stanica - molekularni pristup. Peto izdanje, Medicinska naklada, Zagreb 2010. (The Cell – A Molecular Approach)</td><td>A few</td><td colspan="2"></td></tr>
<tr><td colspan="3">2. Puizina J. 2020: General biology – teaching materials.</td><td></td><td colspan="2">Yes, E-learning, Microsoft Teams</td></tr>
<tr><td>Optional literature (at the time of submission of study programme proposal)</td><td colspan="6">A.Delić i N. Vijtiuk, Prirodoslovlje, Školska knjiga, Zagreb, 2004.(in Croatian)</td></tr>
<tr><td>Quality assurance methods that ensure the acquisition of exit competences</td><td colspan="6">The quality of teaching will be monitored by collecting feedback from students through consultation, discussion and questions asked during classes. At the end of the semester, subject and teacher evaluation will be conducted through an anonymous student survey. Students' performance on the exam will be analyzed and used for the purpose of improvement quality in the next academic year.</td></tr>
<tr><td>Other (as the proposer wishes to add)</td><td colspan="6"></td></tr>
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