NAME OF THE COURSE	Laboratory in Biology Education I					
Code	PMB250	Year of study	2			
Course teacher	Associate Professor Mirko Ruščić, PhD	Credits (ECTS)	2			
Associate teachers		Type of instruction (number of hours)	L	S	E	F
					45	
Status of the course	Mandatory	Percentage of application of e-learning	10			

COURSE DESCRIPTION		
Course objectives	Prepare students for independent preparation and performance of practical teaching in biology teaching and apply theoretical biology knowledge in the preparation and implementation of experiments in biology teaching of theoretical biological contents in experimental teaching practice.	
Course enrolment requirements and entry competences required for the course	Course taken: Biology Education I. Input Competences: basic biological knowledge; knowledge of precautionary measures in biology practice.	
Learning outcomes expected at the level of the course (4 to 10 learning outcomes)	Student will be able to: 1. Develop and devise a work sheet for guiding and evaluating practical work (experiments), 2. Prepare and conduct demonstration and student experiments. 3. To propose experiments and practical papers that will make conclusions based on observations and theoretical knowledge. 4. Demonstrate the skill of performing the experiment. 5. Analyze the course and results of the experiment with an emphasis on causal relationships. 6. Design and organize field teaching in Nature and Biology for Biological Research. 7. Practically prepare for teaching with the choice of practical work and demonstration experiments in the form of display exercises according to topics within the curriculum. 8. Nature and Biology of Primary and Secondary Schools. 9. Practically prepare for teaching with the development of required teaching skills: - Material prerequisites for teaching biology; Demonstration and Practical Works; - multimedia in teaching; biological material for teaching; -high preparation for the lesson; -close students and worksheets; - Written exam tasks; basic methodological tips.	
Course content broken down in detail by weekly class schedule (syllabus)	Lectures: / Exercises: 1. Identification of nature from cell to multiple organism (8 hours). Flower Plant (9 hrs). 3. Living beings and habitat and living conditions (10 hours). 4. Variety of Living World and Evolutionary Development (8 hours). 5. The structure and function of the human body (10 hours).	
	☐lectures	☒independent assignments

Format of instruction	☐seminars and workshops ☒exercises ☐*on line*in entirety ☐partial e-learning ☒field work	☒multimedia ☒laboratory ☐work with mentor ☐ (other)
Studentresponsibilities	Attending classes, meeting individual assignments and tasks in the group	

Screening student work*(name the proportion of ECTS credits for eachactivity so that the total number of ECTS credits is equal to the ECTS value of the course)*						
	Class attendance	0,5	Research		Practical training	0,5
	Experimental work	1	Report		(Other)	
	Essay		Seminar essay		(Other)	
	Tests		Oral exam		(Other)	
	Written exam		Project		(Other)	

Grading and evaluating student work in class and at the final exam	Preparation, implementation and analysis of the experiments - 100%

Required literature (available in the library and via other media)	**Title**	**Number of copies in the library**	**Availability via other media**
	Biology, workbooks and workbooks - approved by the Ministry of Science, Education and Sports Zagreb.	1	
	Antolić, M., Ruščić, M., 2002. Cell Biology Practice - with a textbook for first grade gymnasium. Školska knjiga, Zagreb	1	
	Bačić, T., 2003. Morphology and anatomy of plants. University of Josip Juraj Stosmajera in Osijek, Faculty of Pedagogy Osijek.	1	
	Van Cleave, J., 1990. Janice VanCleave's Biology For Every Kid: 101 Easy Experiments That Really Work Paperback	1	
	Deffer, D. I Ziegler, H., 1987. Botanika: morfologija i anatomija. Školska knjiga,	1	
	Thompson, B.,R.,Thompson, B.,F., 2008. Illustrated Guide to Home Biology Experiments: All Lab, No Lecture (DIY Science) 1st Edition	1	

Optional literature (at the time of submission of study programme proposal)	Pevalek-Kozlina, B., 2003. Physiology of plants. Profile, Zagreb http://croatica.botanik.hr/praktikum/home.htm Riedl, R., 1963. Fauna und Flora der Adria. Verlag Paul Parey, Hamburg and Berlin.

Quality assurance methods that ensure the acquisition of exit competences	Personal consultations, analysis of individual tasks, joint discussion, institutional evaluation of the teaching process.
Other (as the proposer wishes to add)	