

NAME OF THE COURSE		Plant Ecology and Geobotany				
Code	PMB245	Year of study	1			
Course teacher	Higher lecturer Juraj Kamenjarin, PhD	Credits (ECTS)	6			
Associate teachers		Type of instruction (number of hours)	L	S	E	F
			45		30	
Status of the course	Mandatory	Percentage of application of e-learning	10%			
COURSE DESCRIPTION						
Course objectives	To gain knowledge of the interrelationship between plants and the environment, and how plants adopted influence of abiotic and biotic environmental factors. The aim of the course is to link environmental factors with the distribution of plants and plant communities. Understand how the emergence of endemic species, relict and biodiversity as well as the impact of human activities on them.					
Course enrolment requirements and entry competences required for the course	No conditions					
Learning outcomes expected at the level of the course (4 to 10 learning outcomes)	<p>Student will be able to:</p> <ol style="list-style-type: none"> <li>1. Define the influence of abiotic and biotic environmental factors on life and the distribution of plants and plant communities.</li> <li>2. Determine and compare the different physical and chemical properties of different types of soil.</li> <li>3. Detect life forms and methods of propagation of plants.</li> <li>4. Explanation of the circumstances in which plant species are endemic.</li> <li>5. Define life forms of plants and their representation in the various habitats</li> <li>6. List floral kingdoms on Earth and put them in an evolutionary and ecological context.</li> <li>7. List the floral elements in Croatia and give examples.</li> <li>8. Analyze vegetation of Croatia in different types and understand the reasons for distribution.</li> <li>9. Recognize the human influence on the spatial distribution of plant species.</li> <li>10. Specify the basic settings in the planning of protection of plant species and habitats.</li> </ol>					
Course content broken down in detail by weekly class schedule (syllabus)	<p>Lectures: / Exercises:</p> <ol style="list-style-type: none"> <li>1. Introductory lecture. Plant Ecology, definitions and basic concepts.</li> <li>2. Environmental factors and their impact on life and the distribution of plants and plant communities.</li> <li>3. Abiotic: air, light, water and humidity, precipitation, wind, soil physical and chemical properties of the soil, bedrock.</li> <li>4. Biotic factors: symbiosis, parasitism, competition, association of plants and animals.</li> <li>5. Anthropogenic influence.</li> <li>6. Phytocenoses as a component of the ecosystem. Vegetation.</li> <li>7. Primary and secondary biocenosis. Succession.</li> <li>8. Spreading plants: autochory, allochory, cosmopolitans, neophytes.</li> </ol>					

	<p>9. Endemic species: the genesis of endemic species, paleoendemi, relics, neoendemi, endemism of flora.</p> <p>10. Area, disjunction. Life forms of plants.</p> <p>11. Floral elements. Floral kingdoms.</p> <p>12. The main stages of development of plant life under the influence of changes in the geological past of the Earth.</p> <p>13. Ecological gradients in the spatial distributions of plant species. Display vegetation of the Earth and Europe.</p> <p>14. Geographic plant location and articulation of vegetation of Croatia.</p> <p>15. Human impact on the areal of plant species. Protecting plants in the world, Europe and Croatia: red lists, plans to protect species and habitats.</p>					
Format of instruction	<input checked="" type="checkbox"/> lectures <input 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 type="checkbox"/> independent assignments <input type="checkbox"/> multimedia <input type="checkbox"/> laboratory <input type="checkbox"/> work with mentor <input type="checkbox"/> (other)			
Student responsibilities						
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	5	Research		Practical training	
	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	Oral final exam					
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>	
	Kamenjarin J., Trinajstić I. (2017): Ekologija bilja i geobotanika – interna skripta. PMF Split.				Available at teacher in print and in electronic form	
	Kamenjarin J. (2017): Ekologija bilja i geobotanika – power point predavanja				Available at teacher in electronic form	
Optional literature (at the time of submission of study programme proposal)	<p>Gračanin M., Ilijanić LJ., 1977: Uvod u ekologiju bilja, Školska knjiga, Zagreb.</p> <p>Šegulja N., Hršak V., 1988: Priručnik za fitocenološka i ekološka istraživanja vegetacije. Mala ekološka biblioteka Hrvatskog ekološkog društva, Zagreb.</p> <p>Šegulja, N., Topić, J., 1994: Vodič za terensku nastavu iz geobotanike i ekologije bilja. PMF, Zagreb., Zagreb.</p>					

Quality assurance methods that ensure the acquisition of exit competences	Active participation in class, evaluation of courses and teachers, consultation.
Other (as the proposer wishes to add)	