

<b>Study Programme: BSc in Biology</b>			
<b>Degree level:</b> Bachelor degree			
<b>Course Title:</b> Systematics of Vascular Plants with Basics of Phylogeny			
<b>Professor:</b> Pal Boza, Goran Anačkov			
<b>Required/Elective Course:</b> Required course			
<b>Number of ECTS:</b> 8			
<b>Prerequisites:</b> passed exams “Anatomy and morphology of Plants”, “Field trip I” and “Field trip II”			
<b>Course Objective:</b> Introduction to basic systematic groups of higher plants, their morphology, evolution and phylogeny.			
<b>Course Outcome:</b> Obtaining basic knowledge of plant systematics. The basis for other botanical subjects. Knowledge of the origin, kinship ties, diversity and characters of some vascular plant groups in general.			
<b>Course Content:</b>			
<i>Theoretical part</i>			
Systematic as science, the basic concepts and research methods. Taxonomy and systematics, taxonomic categories, binary nomenclature, systematic subordination of units. The history of development of the Earth and plant life. The main evolutionary directions of a group of vascular plants and phylogenetic concepts. Ancestral lines and the underlying group. The first land plants: Rhyniophyta, Zosterophylophyta, Bryophyta, Psilotophyta, Lycopodiophyta, Equisetophyta, Polypodiophyta; organization, reproduction and evolutionary significance. The appearance of seeds. Plants with seeds. Gymnosperms, characteristics and distribution. Angiosperms, characteristics and basic groups. The characteristics of main groups in monocotyledonous and dicotyledonous plants.			
<i>Practical part</i>			
Taxonomy as the basis of the systematics, determination of plants, the basic concept and rules. External morphology and breeding systems of selected representatives of the systematic groups: taloides and true mosses, isosporic and heterosporic shortcuts, ferns, horsetails, gymnosperms and angiosperms.			
<b>Reading List:</b>			
1. Tatić, B., Blečić, V. (1996): Sitematika i filogenija kormofita. Zavod za udžbenike i nastavna sredstva, Beograd.			
2. Wettstein, R. (1935): Handbuch der Systematischen Botanik. Franz Deuticke, Leipzig und Wien.			
3. Mägdefrau, K., Ehrendorfer, F. (1988): Botanika, sistematika, evolucija i geobotanika. Školska knjiga, Zagreb.			
4. Borhidi, A. (1998): A zárwatermök fejlődéstörténeti rendszertana. Nemzeti Tankönyvkiadó, Budapest.			
5. Takhtajan, A. (1997): Diversity and Classification of Flowering Plants. Columbia University Press, New York.			
6. Takhtajan, A. (2009): Flowering Plants, sec. ed. Springer Science+Business Media, Berlin.			
<b>Total hours:</b>			8
Lectures: 4	Practicals: 4	Other:	Student research work:
<b>Methods of instruction:</b> Theoretical lectures, laboratory exercises.			
<b>Assessment (maximum number of points 100)</b>			
<b>Requirements</b>	<b>points</b>	<b>Final exam</b>	<b>points</b>
Active participation in lectures		Practical exam	30
Active participation in practicals		Oral exam	40
Test(s) or			
Pre-exam testing	30		
<b>Remark:</b> Required establishment of personal herbarium collection, during field work 1 and 2, according to standards.			