

Study Programme: BSc in Biology			
Degree level: Bachelor degree			
Course Title: Practicum in Botany			
Professor: Pal Boza			
Required/Elective Course: Elective Course			
Number of ECTS: 5			
Prerequisites: passed exams "Systematics of Vascular plants", "Field trip 1" and "Field trip 2"			
Course Objective: Mastering the work in the field-work, with the different habitats. Learning the techniques of collecting, pressing and drying plants from different groups. Preparation of the herbarium collection. Managing herbarium nomenclature and the definition of special abbreviation, learning the principles of determination. Introduction the habitats and species, that must not be collected and where is forbidden collecting. Acquisition of working habits for the forming of herbarium collection and special botanical collection by scientific, educative, environmental and conservation aspects.			
Course Outcome: Training for the formation of different types of herbarium collections. Work with amateur and professional herbarium collections. Training for work in the herbarium as institutions.			
Course Content: <i>Practical part</i> Preparations for the field work. The choice of equipment and materials, depending on the type of research and the type of habitat. Proper selection of plants for the collection, selection of individuals, the process from collecting the plants to their maturity in the lab, writing characters that are changing on the collected material, the necessary data on the temporary labels. Specific techniques of collection mosses, ferns, woody, herbaceous and succulent plants. Necessary material for the pressing plants: blotting pad and paper news, plants bending technique, the frequency of changing paper, drying paper, the possibility of "ironing" of plants. Storing of dried, pressed plants. Types of collections in the herbarium. Other techniques of saving material. Introduction to the organization of herbarium. Timetable. Making herbarium sheet. The main elements in the design. Practical work in the herbarium. Getting to know the elements of herbarium documentation. Inventory book, databases. Types of keys, iconography, instruments for the determination. The specialized keys. Taxonomic characters. The value of characters. Specifics of the determination of selected groups. Taxonomic characters in the determination of moss, shortcuts, horsetail, ferns, gymnosperms and flowering plants. Determination of pressed plant material. Preparation of materials for the determination of herbarium sheet.			
Reading List: 1. Boža, P., Veljić, M., Marin, P., Anačkov, G., Janačković, P. (2004): Praktikum za determinaciju viših biljaka. Old Komerc, Novi Sad. 2. Čubatova, N.V. (2006): Morfologija vegetativnih organov cvetkovih rastenij. MGU Lomonosov, Biologičeskij fakul'tet, Moskva. 3. Fedorova, T.A. (2006): Morfologija socvetij. MGU Lomonosov, Biologičeskij fakul'tet, Moskva. 4. Щербakov, A.B., Майоров, С.Р. (2006): Полевое изучение флоры и гербаризация растений. МГУ Ломоносов, Биологический факультет, Москва. 5. Battha, L., Horvatovich, S. (1978): Növények és rovarok preparálása. Natura, Budapest. 6. Bridson, D., Forman, L. (1999): The Herbarium Handbook, third ed. Royal Botanical Gardens, Kew. 7. Nikolić, T. (1996): Hebarijski priručnik. Školska knjiga, Zagreb. 8. Oláh, J. (1967): Növénygyűjtés. Táncsics könyvkiadó, Budapest.			
Total hours:		4	
Lectures:	Practicals: 4	Other:	Student research work:
Methods of instruction: Practical exercises, work in the herbarium, visits to the Herbarium and Botanical Garden			
Assessment (maximum number of points 100)			
Requirements	points	Final exam	points
Active participation in lectures		Practical exam	70
Active participation in practicals		Oral exam	
Test(s) or	10		
Pre-exam testing	20		
Remark: Obligated to write report about the visiting herbarium and botanical garden			