

Study Programme : BSc in Biology Teaching			
Degree level: Bachelor degree			
Course Title: Botanical Collections in Biology Education			
Professor: Ružica Igić, PhD			
Required Course			
Number of ECTS: 4			
Prerequisites: Passed exam in The Systematics of Higher Plants			
Course Objective: Introduction to the basic principals and techniques of forming the botanical collections as education tool necessary in the educational processes in elementary and secondary schools.			
Course Outcome: Capacity building of future teachers for individual work and work with students in creation of educational botanical collections. Creation of different botanical collections that will be used by students – future teachers of biology.			
Course Content: <i>Theoretical part</i> Botanical contents in biology education in elementary and secondary schools. Utilization of botanical collections in the biology lessons. Practical exercises in the botanical part of the biology education. Morphological collections: stem cross sections collection, roots collection, collection of leaf shapes and leaf venations, inflorescences collection, floral collection, fruits and seeds collection. Systematical collections of macro algae, lichens, vascular plants. Biocoenological herbarium. Collections of medical plants, collections of edible plants, collections of spices, collections of poisonous plants. Collections of ruderal plants. Creation of student's and school herbaria. Botanical ecological camps. Educational excursions photo documentation. School garden. Live corner. Botanical group in the biological education for talented students. <i>Practical part</i> Preparation of the collected plant material. Creation of different collection types.			
Reading List: 1. Tatić, B., Blečić, V. (1996): Sistematika i filogenija viših biljaka. Zavod za udžbenike i nastavna sredstva, Beograd. 2. Чубатова, Н.В. (2006): Морфология вегетативных органов цветковых растений. МГУ Ломоносов, Биоогический факультет, Москва. 3. Федорова, Т.А. (2006): Мофлогия соцветий. МГУ Ломоносов, Биоогический факультет, Москва. 4. Щербаков, А.В., Майоров, С.Р. (2006): Полевое изучение флоры и гербаризация растений. МГУ Ломоносов, Биоогический 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): Herbarijski priručnik. Školska knjiga, Zagreb.			
Total hours:			
Lectures: 0	Practicals: 4	Other:	Student research work:
Methods of instruction:			
Assessment (maximum number of points 100)			
Requirements	points	Final exam	points
Active participation in lectures	5	Practical exam	20
Active participation in practicals	25	Oral exam	50
Test(s) or			
Pre-exam testing			