Study Programme: BSc in Biology Teaching

Degree level: Bachelor degree

Course Title: School Experiments in Biology

Code course: OPB005

Professor: Tomka Miljanović, PhD.

Elective Course

Number of ECTS: 5

Prerequisites: -

Course Objective:
Pointing out the role of Principle of obviousness and of unity of theory and practice in Biology teaching. Development of student creativity. Realisations of the role practice and experiments have in biology teaching.

Course Outcome:
Enabling students to recognize and adequately valorize different aspects of pupil's personality in Biology teaching.

Course Content:
Theoretical part:
Biological experiments in biology teaching, their mportance and role. Criteria for a selection of biological experiments in teaching. Modes of biological experiments. Methodic classification of biological experiments. Demonstrative experiments. Criteria for equipping laboratories in elementary and high schools. Equipment in biology teaching. Demonstrative equipment, its assemblence, maintenance, and managing. Equipment manufacturing and collection assemblance. Means for demonstrative experiments. Chemicals and their maintenance. Analysis of experiments and their realization within elementary and high school curricula. Experiments in different biological fields suitable for practical work in elementary and high schools.
Obligatory experimental colloquia during teaching courses.
Practical part:
Practical part follows theoretical topics.

Reading List:
1. SR of Serbia, Official Gazzete – Education Gazzete, 4, 1990, Belgrade. (in Serbian)
2. Krstić, B., Pajević, S., Arsenijević-Maksimović, I., Ćulafić, LJ., Stikić, R., Vasić, D. (2003): Experimental exercises in plant physiology: for the high school, JDFB, Belgrade; Department of Biology and Ecology, Faculty of Sciences, Novi Sad and Institute of Agricultural Research SRBIJA, Belgrade. (in Serbian)
3. Milivojević, V., Miljanović, T. (2001): Biology: Practicum for additional teaching for VIII grade of primary school, Libra print, Sremska Kamenica. (in Serbian)
4. Igić, R., Vukov, D. (2000): Practicum in systematics of higher plants, Faculty of Sciences, Novi Sad. (in Serbian)
5. Bože, P., Veljić, M., Marin, P., Anačkov, G., Janaćković, P. (2004): Practicum for the determination of higher plants, Old commmerc, Novi Sad. (in Serbian)
6. Kovačević, R., Kostić, T., Andrić, S. (1997): Practicum in general physiology of animals, Faculty of Sciences, Novi Sad. (in Serbian)
7. Current curricula, textbooks and workbooks for primary and secondary school Biology. (in Serbian)

Total hours:				
Lectures: 1	Practicals: 3	Other: -	Student research work: -	

Methods of instruction: Interactive teaching

Assessment

Requirements	**points**	**Final exam**	**points**
Active participation in lectures	10	Practical exam	-
Active participation in practicals	20	Oral exam	50
Test(s)	-		
Seminar	20		