Study Programme : MSc in Ecology

Degree level: Master degree

Course Title: Ecoremediation of Water ecosystems

Professor: Dr Zorica Svirčev

Elective Course

Number of ECTS: 8

Prerequisites:

Course Objective: Course is designed to acquaint students with the principles of water management and the possibilities of using the structure and function of ecosystems in order to care, treat and restore the water ecosystems (water retention, preventing erosion and flooding, system restoration and preservation of biodiversity).

Course Outcome: Passing the course of ecoremdiation students are expected to:

demonstrate willingness and ability of interpretation of the concept of using natural processes and systems in water protection, preservation and purification of polluted aquatic environment; control and actively use all the features and benefits of ecosystem technology in the protection, restoration and treatment of aquatic ecosystems.

Course Content:

Theoretical part

Theoretical basis of ecoremediation. Ecoremediation in the past. The most popular ecoremediation methods in the system of protection, rehabilitation and preservation of aquatic ecosystems (standing water, running water, irrigation systems,

flood protection, water recycling for various purposes, ground water) systems. Wetlands - definition and strategy.

Ecoremediation prospects in project implementation for water purification and protection, such as making ERM strategy in Vojvodina and Serbia.

Reading List:

1. Svirčev Z., Vrhovšek D., Marković S., Bulc T. (2008): Ecoremediation. Internal Scripts (in Serbian).

2. Herson D.S. (1994): Bioremediation. McGraw-Hill. New York (in English).

3. Mueller B. (2001): Phytotechnology Technical and Regulatory Guidance Document. Interstate Technology and Regulatory Cooperation (ITRC) Work Group. Phytotechnologies Work Team. Washington (in English).

4. Vrhovšek, D., Bulc, T. (2002): Ekoremediacije kot metoda za zaščito vodnih ekosistemov. V: Okolje brez meja: odpadne vode in ravnanje z odpadki : strokovni posvet in ekskurzija. Ljubljana (in Slovenian).

5. Wetzel R.G. (2001): Limnology. Academic Press, San Diego, London (in English).

Total hours:					
Lectures: 3	Practicals:	Other:	Student	research work: 5	

Methods of instruction: Lectures, practicals, consultations, seminars, colloquia, field work.

Assessment (maximum number of points 100)					
Requirements	points	Final exam	points		
Active participation in lectures	10	Practical exam			
Active participation in practicals		Oral exam	50		
Test(s) or	30	Seminar	10		
Pre-exam testing					
Remark:					