Study Programme :BSc in Biology

Degree level: Bachelor degree,

**Course Title: BIOLOGY OF ALGAE AND FUNGI** 

Professor: Dragan Radnovic, Jelica Simeunovic

**Required/Elective Course: Required Course** 

Number of ECTS: 7
Prerequisites: none

**Course Objective:** Understanding biology, ecology and taxonomy of prokaryotic and eukaryotic algae, fungi and lichens, in order to understand their distribution and importance in natural ecosystems.

**Course Outcome:** The outcome of this course is to understand diversity of algae, fungi and lichens, the essence of phylogenetic relatedness, their role in different ecosystems as well as their indicator characteristics.

#### **Course Content:**

Theoretical part

Basic characteristics of algae including structure of the algal cells, their mode of nutrition, and review their methods of reproduction, types of the life cycle of the reprecentative genera and their basic role in the nature and different environments. Understanding general principles of classification of algae and biology of divisions: Cyanophyta, Rhodophyta, Euglenophyta, Pyrrophyta, Xanthophyta, Chrysophyta, Bacillariophyta, Phaeophyta Chlorophyta and Charophyta.

General characteristics of fungi and funguslike organisms. Physiology of growing hypha. Hyphal aggregates (mycelial cords, mycelial cords, sclerotia, haustorium etc.). Spores of fungi. Taxonomy of fungi. Biology of divisions Myxocota and Eumycota including subdivisions Mastigomycotina, Zygomycotina, Ascomycotina, Basidiomycotina, Deuteromycotina, as well as the characteristics and biology Lichenes.

# Practical part

Practical classes follow lectures by learning about morphology and life cycles of the individual genera of algae, fungi and lichens - members of the taxa treated in the theoretical teaching.

## **Reading List:**

Blaženčić J. (1988): Systematics of algae. Scientific Book, Belgrade. (in Serbian)

Rankovic B. (2007): Systematics of fungi. Faculty of Science, Kragujevac. (in Serbian)

Gajin, S., Matavulj, M., Gantar, M. (1987): Fundamentals of Microbiology, Lower plants and Fungi.

Practicum. Faculty of Science, Novi Sad. (in Serbian)

## Additional reading (in English):

Lee, E. (2007): Phycology. 4rd Edition. Cambridge University Press. ISBN-10: 0521864089.

Webster, J., Weber, R. (2007) Introduction to Fungi. 3rd Edition. Cambridge University Press.

ISBN:9780521014830

Total hours:				
Lectures:	Practicals:	Other:	Student research w	vork: -
3	3	-		

#### **Methods of instruction:**

Assessment (maximum number of points 100)					
Requirements	points	Final exam	points		
Active participation in lectures	2	Practical exam	22		
Active participation in practicals	-	Oral exam	40		
Test(s) or	36				
Pre-exam testing	-				
Remark:					