**Study Programme :** PhD in Ecology

Degree level: Doctoral degree

**Course Title: MICROBIAL ECOLOGY II** 

**Professor:** Dragan Radnović

**Required/Elective Course:** Elective Course

**Number of ECTS:** 15

**Prerequisites:** 

**Course Objective:** The aim of this course is **u**pgrading the knowledge of microbial ecology issues related to doctoral dissertation.

**Course Outcome:** After successfully completed the pre-examination and examination commitments student should be able to: Identify of problems caused by microbial activity, make proposals of measures to be undertaken to resolve observed problem.

## **Course Content:**

Theoretical part Theoretical lectures will conduct by individual work with students and will cover all the wider ecology of microorganisms that are related to the aim of doctoral thesis. Each student will also prepare paper that reviews at least two studies from the primary literature (i.e. presenting original experimental data) in microbial ecology. These literature sources must be published in peer-reviewed scientific journals. The point of this assignment is to analyze scientific papers and to synthesize them into a greater understanding of the field. The sources should either disagree with each other on some key point, in which case your assignment is to reconcile the two contradictory studies, or alternatively the results of two non-contradictory studies may be creatively combined to support a broader conclusion than either reaches individually

Reading List:

- 1.Atlas R.M, Bartha R. (1998): Microbial Ecology. Fundamental and applications. 4/th ed. Benjamin/Commings Publisching Company. ISBN-0-8053-0655-2
- 2.Burlage R.S., Atlas R., Stahl D., Greesey G., Sayler G. (1998): Tehnicques in Microbial Ecology. Ed Burlage R. Oxford University Press. ISBN-0-19-509223-6
- 3. Articles published in peer reviewed scientific journals.

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

**Methods of instruction:** Classes are held under the system of consultation defined by the units. Student in consultation with the teacher and supervisor selects topics for seminar papers from two respective area of microbial ecology with the obligation to search the Internet and/or standard library documentation, based on which to analyze comparability of results obtained.

## Assessment (maximum number of points 100)

Presentation and defense of the project - 50 points Oral exam - 50 points

Requirements

Remark: