

<b>Study programme:</b> PhD in Biology			
<b>Level:</b> PhD degree			
<b>Course title:</b> Selected topics of Bacteriology			
<b>Lecturer:</b> Petar Knezevic, PhD			
<b>Status:</b> elective			
<b>ECTS:</b> 15			
<b>Requirements:</b> -			
<b>Learning objectives</b> The aim of the course is to provide high level of knowledge to PhD students in the field of bacteriology, primarily connected to the topics relevant to his/her PhD thesis or in accordance to her/ his interests. In addition, the aim is to train students for research in this field, through independent research.			
<b>Learning outcomes</b> Upon the course, the students will be able to participate in scientific work in the field of bacteriology; they will be able to define a problem, to choose the most appropriate methods for its solving, to process the data, to interpret the obtained results and to make valid conclusions.			
<b>Syllabus</b> <i>Theoretical instruction</i> Obligatory topics: Bacterial ultrastructure. Overview of metabolic pathways in bacteria. Cell signaling. Genetics and genomics of bacteria. Classical and contemporary methods in bacteriology. Bacterial diversity. Selected topics: In arrangement with the relevant teacher.  <i>Practical instruction</i> Student's research in arrangement with the relevant teacher, related to student's PhD thesis or his/her interests.			
<b>Literature</b> 1. Madigan, M. T., Martinko, J. M. (2006): Brock Biology of Microorganisms. 11th ed. Pearson Education, Inc. 2. Brenner, D. J., Krieg, N. R., Staley, J. T., Garrity, G. (2005): Bergey's Manual of Systematic Bacteriology. 2nd Ed. Garrity, G. M. Springer.  Additional literature in arrangement with the relevant teacher, in accordance to selected topics and student's research work.			
<b>Weekly teaching load</b>			Other:
Lectures: 5	Exercises:	Other forms of teaching:	
		Student research: 5	
<b>Teaching methodology</b> Lectures, consultations and student's independent research.			
<b>Grading method (maximal number of points 100)</b>			
<b>Oral exam</b>	<b>50</b>		
<b>Student's research</b>	<b>50</b>		