

Study Programme : BSc in Biology			
Degree level: Bachelor degree			
Course Title: Bacteriology			
Professor: Petar Knezevic			
Required/Elective Course: elective			
Number of ECTS: 6			
Prerequisites:			
Course Objective: Synthesis and knowledge increasing in field of bacteriology obtained through courses: Cell biology, Basic and General Microbiology, Ecology of microorganisms			
Course Outcome: Students will be able to describe processes in prokaryotic cells and to identify most important bacteria from corresponding representative groups.			
Course Content: <i>Theoretical part</i> Functional structure of bacteria. Bacterial growth and cell division; effects of environmental factors on bacterial growth. Bacterial genetics; plasmids and transposable genetic elements. Phenotypic and genotypic variation and genetic exchange in prokaryotes. Metabolism and types of energetic exchanges in bacteria. Metabolic regulation and cell signaling. Basic principles in bacterial taxonomy. Representative groups of bacteria. Bacterial distribution and role in environment. Bacteria and other organisms. Importance of bacteria for mankind. <i>Practical part</i> Examination of morphological, tinctorial, cultural, physiological and other characteristics of selected representative bacteria using classical and modern methods.			
Reading List: 1. Petrović O., Knežević P., Simeunović J. (2007) : Mikrobiologija. Skripta – WUS Austrija, Novi Sad 2. Leugeler, W, Drews, G, Schlegel, H, G (1999): Biology of Prokaryotes, (eds) Blackwell Science 3. Madigan, M. T., Martinko, J. M. (2006): Brock Biology of Microorganisms. 11th ed. Pearson Education, Inc. 4. Brenner, D. J., Krieg, N. R., Staley, J. R., Garrity, G. (2005): Bergey's Manual of Systematic Bacteriology, Springer-Verlag			
Total hours:			
Lectures: 3	Practicals:	Other: 2	Student research work:
Methods of instruction: Lectures with using PowerPoint presentations; Practice- individual student work and demonstration of some bacteriological methods			
Assessment (maximum number of points 100)			
Requirements	points	Final exam	points
Active participation in lectures	5	Practical exam	20
Active participation in practicals	40	Oral exam	20
Test(s) or	15		
Pre-exam testing			