

Course Unit Descriptor

<b>Study Programme:</b> Microbiological food safety		
<b>Course Unit Title:</b> Food and microorganisms		
<b>Course Unit Code:</b> SSP1		
<b>Name of Lecturer(s):</b> Associate Professor Sunčica Kocić-Tanackov		
<b>Type and Level of Studies:</b> Specialist academic studies		
<b>Course Status (compulsory/elective):</b> Compulsory		
<b>Semester (winter/summer):</b> Winter		
<b>Language of instruction:</b> English		
<b>Mode of course unit delivery (face-to-face/distance learning):</b> Face-to-face		
<b>Number of ECTS Allocated:</b> 6		
<b>Prerequisites:</b> None		
<b>Course Aims:</b> This course provides information on the interaction of microorganisms and food in relation to food bioprocessing, food spoilage, and foodborne diseases, including conventional and modern methods in food microbiology.		
<b>Learning Outcomes:</b> Graduated students will be educated in field of knowledge about microorganisms in food.		
<b>Syllabus:</b> <i>Theory</i> Food as a substrate for growth of microorganisms. Origin of microorganisms in food. Growth and interactions of microorganisms in food. Conventional and novel methods in prevention of microbial growth in food. Microorganisms in food - pathogens and spoilage agents. Moulds and mycotoxins in food. Starter cultures in food processing. Probiotics. Microbiological criteria for food. Conventional and modern methods for the determination of microorganisms in food and drinking water. Hygiene and sanitation in the food production chain. <i>Practice</i> Analysis of novel literature in field of modern food microbiology. Experimental exercises - Sampling and preparation of a sample for microbiological analysis; methods for determination the microorganisms and their toxins in food; methods for determination the microorganisms in drinking water and natural mineral waters; conventional and other methods for hygiene testing in the food industry.		
<b>Required Reading:</b> Erkmen, O., Bozoglu, T.F. (2016). Food Microbiology, Principles into Practice. JohnWiley & Sons,Inc., Chichester. Salfinger, Y., Tortorello, L.M. (2015). Compendium of Methods for the Microbiological Examination of Foods, fifth edition. American Public Health Association, Washington. Ray, B., Bhunia, A. (2014). Fundamental Food Microbiology, fifth edition. CRC Press, Taylor & Francis Group, LLC, Boca Raton. Jay, J.M., Loessner, M. J., Golden, D.A. (2005). Modern Food Microbiology, Seventh Edition. Springer Science+Business Media, Inc. Harrigan, W. F. (1998). Laboratory Methods in Food Microbiology, Academic Press, San Diego.		
<b>Weekly Contact Hours:</b>	<b>Lectures:</b> 3	<b>Practical work:</b> 3
<b>Teaching Methods:</b> Interactive lectures and consultations in groups or individually, depending on the number of students; experiments in laboratory; writing and presentations of seminars.		

<b>Knowledge Assessment (maximum of 100 points):</b>			
<b>Pre-exam obligations</b>	points	<b>Final exam</b>	points
Active class participation	10	written exam	
Practical work	20	oral exam	50
Preliminary exam(s)		.....	
Seminar(s)	20		
The methods of knowledge assessment may differ; the table presents only some of the options: written exam, oral exam, project presentation, seminars, etc.			