

Course Unit Descriptor

Study Programme: Food engineering			
Course Unit Title: Food microbiology			
Course Unit Code: PO302			
Name of Lecturer(s): Associate Professor Sunčica Kocić-Tanackov			
Type and Level of Studies: Bachelor with honors			
Course Status (compulsory/elective): Compulsory			
Semester (winter/summer): Winter			
Language of instruction: English			
Mode of course unit delivery (face-to-face/distance learning): Face-to-face			
Number of ECTS Allocated: 6			
Prerequisites: Microbiology			
Course Aims: Education of students in field of food microbiology.			
Learning Outcomes: Gaining basic knowledge about food microbiology. Training of experts for work in laboratory for food microbiology and food industry, and in all institutions with microbiological food control practice.			
Syllabus: <i>Theory</i> The role and importance of the microorganisms in food. Microorganisms: cause food spoilage and sources of contamination. Factors influencing microbial growth in food. Inactivation of microorganisms in food. Food microbiology of animal and plant origin. Foodborne toxicoinfections and intoxications. Microbiology of drinking water, natural mineral waters, and refreshing non-alcoholic beverages. Basic principles of sanitation and hygiene of the food industry. <i>Practice</i> Detection and enumeration of microorganisms in foods (milk and milk product, meat and meat products, fruits and vegetables and their products, cereals and cereal products, confectionery products, oilseeds and oil products, fresh foods ready for use, honey, spices, additives for the food industry, coffee, and other products of the food industry). Microbial methods for testing drinking water, natural mineral waters, and refreshing non-alcoholic beverages. Methods of hygiene testing in the food industry.			
Required Reading: 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. Montville, T., Thomas J. (2005). Food Microbiology. ASM Press, Washington. Harrigan, W. F. (1998). Laboratory Methods in Food Microbiology, Academic Press, San Diego.			
Weekly Contact Hours:	Lectures: 3	Practical work: 3	
Teaching Methods: Interactive lectures with usage modern technique, consultations in groups and individually, experiments in laboratory.			
Knowledge Assessment (maximum of 100 points):			
Pre-exam obligations	points	Final exam	points

Active class participation	5	written exam	40
Practical work	25	oral exam	30
Preliminary exam(s)		
Seminar(s)			
The methods of knowledge assessment may differ; the table presents only some of the options: written exam, oral exam, project presentation, seminars, etc.			