

Study Programme: Food Engineering			
Course Unit Title: Technology of Functional Fermented Dairy Products			
Course Unit Code: DPI22			
Name of Lecturer(s): Full Professor Mirela Iličić, Associate Professor Katarina Kanurić			
Type and Level of Studies: Doctoral Academic Degree			
Course Status (compulsory/elective): Elective			
Semester (winter/summer): Summer			
Language of instruction: English			
Mode of course unit delivery (face-to-face/distance learning): Face-to face			
Number of ECTS Allocated: 10			
Prerequisites: None			
Course Aims: Students of doctoral studies are trained to introduce innovations, advanced operations and processes in the field of fermented dairy technology.			
Learning Outcomes: The objective of this course is the introduction of students with modern scientific and practical achievements in the field of modern trends in the technology of fermented dairy products.			
Syllabus: Kinetics of milk fermentation. Biochemical transformation of milk components in fermented dairy products. Starter culture in the production of fermented dairy products. Application of probiotics, prebiotics and other ingredients in the production of functional fermented milk drinks. Innovations in the manufacture of yoghurt and other fermented milk products: drinking yogurt with hydrolyzed lactose, yoghurt, frozen yogurt, yoghurt powder and dr. Application of transglutaminase enzymes in fermented dairy products technology. Rheology, texture and microstructure of fermented dairy products. Functional properties and health significance of fermented dairy products – biologically active components antioxidant potential. Sensory properties. Techno-economic analysis of the process of functional fermented dairy products. <i>Practice</i> Search, processing, analysis and discussion of achievements in scientific and technical literature in the field of fermented dairy technology. Selection and processing of data and preparation of seminar.			
Required Reading: 1. Tamime, A.Y.: Fermented Milks, WoodHead Publishing Limited, 2006. 2. Tamime, A.Y.: Structure of Dairy Products, Blackwell Publishing Ltd, 2007.			
Weekly Contact Hours:	Lectures: 4	Practical work: 2	
Teaching Methods: Lectures and students group work.			
Knowledge Assessment (maximum of 100 points):			
Pre-exam obligations	points	Final exam	points

Active class participation	5	written exam	
Practical work	10	oral exam	50
Preliminary exam(s)	25	
Seminar(s)	10		
The methods of knowledge assessment may differ; the table presents only some of the options: written exam, oral exam, project presentation, seminars, etc.			