Order number: 9

Attachment No. 3		**Subject program of the second cycle of studies**			
1.	Title of the teaching subject	Sensory perception of food			
2.	Code	FE2M22			
3.	Study program	Food engineering – innovation, sustainability and technologies			
4.	Organizer of the study program (unit, i.e. institute, department, department)	Faculty of Technology and Metallurgy, University "St. Cyril and Methodius" in Skopje Department of Food Technology			
5.	Degree (first, second, third cycle)	Second cycle			
6.	Academic year / semester	Year	I	semester	II
7	Course load expressed in ECTS credits	6 ECTS			
8.	Teacher (in the case of multiple teachers designated responsible teacher)	Dr. Michela Temkov			
9.	Language of instruction	English			
10.	Necessary prerequisites for listening and passing the subject	Knowledge of food composition. Knowledge of food processing and preservation methods. Knowledge of food safety and quality. Basics of the human sensory system, including the perception of taste, smell, and texture. Basic knowledge of statistical concepts (eg, mean, median, variance). Introduction to experimental design and data interpretation.			
11.	Objectives of the subject program (competencies) and learning outcomes:	**Objectives of the program:** Familiarity with the physiological and psychological processes involved in the sensory perception of taste, smell, texture and visual attributes of food. How sensory systems interact to influence food perception and acceptance. Familiarity with sensory evaluation techniques and methods. Designing and conducting sensory evaluation experiments for food products. Analysis of the perception of food by consumers. Influence of chemical and physical properties on sensory perception. Assessing consumer preferences **Learning outcomes:** 1. Students will gain knowledge of applying sensory evaluation techniques to effectively evaluate and analyze food products. 2. Students will be able to evaluate the factors that influence consumer food choices and will be able to use sensory data to guide product design. 3. Students will be able to integrate advanced sensory science tools and principles in food design and quality optimization. 4. Students will be able to critically analyze challenges and limitations in sensory science methodologies.			
12.	Detailed course content by chapter and unit with learning outcomes for each chapter	The role and importance of consumer perception Physiological and psychological bases of sensory function Principles of good practice Discrimination tests Similarity, equivalence testing, and discrimination theory Measuring sensory thresholds Scaling Context effects and biases in sensory judgment			

		Descriptive analyses Texture analysis Analysis of color and appearance A test of preferences Acceptability Test Questionnaire design Qualitative methods of consumer research Quality control and shelf life (stability) testing. Consumer perception of food packaging Consumer perception of nutritional and health benefits. Perception of consumers in times of crisis		
13	Interrelationship of subjects	There is none		
14.	Detailed description of teaching and working methods for the subject	Interactive theoretical and practical teaching combined with independent work and individual consultations will be applied in all teaching chapters of the course to a varying extent, depending on the number of students. Individual and possibly group or team collaborative and cooperative methods of active learning will be used from the teaching methods. Developing skills for displaying and presenting research according to the latest relevant scientific research in the field of food chemistry and physics.		
15.	Total available fund on time	180 hours		
16.	Forms of teaching activities	16.1.	Lectures - theoretical teaching. hours	45
		16.2.	Exercises (laboratory, classroom), seminars, teamwork: lessons	21
		16.3.	Practice: classes	24
17.	Other forms of activities	17.1.	Project assignments: lessons	40
		17.2.	Independent assignments: lessons	10
		17.3.	Home study - assignments	40
18.	Conditions of signature	Minimum 11 points from 19.1 and 19.2		
19.	Method of assessment			
	19.1.	Tests: points	10 points	
	19.2.	Seminar work/project, written and oral presentation: points	10 points	
	19.3.	Final exam: points	80 points	
20.	Evaluation criteria (points/grade)	up to 50 points	5 (five) (F)	
		51 x to 60 points	6 (six) (E)	
		61 x to 70 points	7 (seven) (D)	
		from 71 to 80 points	8 (eight) (C)	
		from 81 to 90 points	9 (nine) (B)	
		from 91 to 100 points	10 (ten) (A)	
21.	A method of monitoring the quality of teaching	Based on Article 10 para. 5 of the Guidelines for self-evaluation and assessment of the quality of UKIM in Skopje, anonymous surveys of students are conducted on the quality of the teacher and associate staff and an anonymous survey on the general conditions for studying		
22.	Literature			

	22.1.	Required reading				
		Ord. number	Author	Title	Publisher	Year
		1.	Diana Bogueva (Ed.)	Consumer Perceptions and Food	Springer	2024
		2.	Howard R. Moskowitz, Jacqueline H. Beckley, and Anna VA Resurrection	Sensory and Consumer Research in Food Products Design and Development	IFT Press / Blackwell Publishing	2006
		3.	Harry T. Lawless, Hildegarde Heymann (Eds.)	Sensory Evaluation of Food Principles and Practices	Springer	2010
	22.2.	Additional literature				
		Ord. number	Author	Title	Publisher	Year
		1.	Michela Temkov	Internal materials	TMF	
		2.	Sussanne Doppler, Adriennes Steffen (Eds)	Case Studies on Food, Experiences in Marketing, Retail and Events	Elsevier / Woodhead Publishing	2020
		3.Scientific papers from renowned journals from the last five years in the field of sensory perception and consumer behavior				