

# Functional food Educational subject description sheet

## **Basic information**

Field of study Food Science - Technology and Nutrition		Didactic cycle 2023/24	
Speciality -		Subject code NoZTNS_D.110K.04514.23	
<b>Organizational unit</b> Faculty of Food Technology		Lecture languages english	
<b>Study level</b> first cycle (bachelor's degree	2)	Mandatory Elective subjects	
<b>Study form</b> full-time studies		<b>Block</b> Major subjects	
Education profile General academic		<b>Disciplines</b> Food technology and nutrition	
Coordinator	Katarzyna Świąder		
Teacher	Katarzyna Świąder, Małgorzata Ziarno		
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Period Semester 5	Examination Pass with grade Activities and hours Lecture: 30 Auditorium exercises: 15		Number of ECTS points 3

### Goals

Code	Goal
C1	Provide knowledge and skills to identify and know the classification rules of functional food, the principles of correct labelling of functional food and its marketing in accordance with current legal regulations. Characteristics and applications of selected food groups and food components included in functional food.

# Subject's learning outcomes

Code	Outcomes in terms of	Effects	Examination methods	
Knowledge	Knowledge - Student knows and understands:			
W1	the concepts of functional food and the rules for its labelling and marketing and know examples of foods and food additives with a specific health promoting function	TN_K1_W03, TN_K1_W08	Project	
Skills - Student can:				
U1	acquire, analyse and interpret information from a variety of sources necessary for an understanding of how food ingredients or foods may perform a health promoting function and thus be used in the production of functional foods, working either alone or in a team	TN_K1_U07, TN_K1_U08	Project	
Social competences - Student is ready to:				
К1	exchange knowledge and work in a team/interdisciplinary way in preparing and carrying out project work	TN_K1_K01	Project	

# Study content

No.	Course content	Subject's learning outcomes	Activities
1.	Participants of the course will become familiar with the following issues: Classification of functional foods; Status of functional foods in the European Union and worldwide; Nutrition and health claims; Discussion of selected foods and food additives with a special health-promoting function; Characteristics of probiotics and prebiotics and their use in food production; Legal aspects of probiotics and prebiotics in the European Union and worldwide; Definition of novel foods and characteristics of types of novel foods; Fortified foods; Alternative sources of protein; Sources of ingredients with adaptogenic and immunomodulating effects.	W1, U1, K1	Lecture, Auditorium exercises

### **Course advanced**

Activities	Methods of conducting classes	
Lecture	Lecture	
Auditorium exercises	Case study, Discussion, Brainstorm, Problem solving, Teamwork	
Activities	Examination method	Percentage
Activities Lecture	Examination method Project	Percentage 50%

Activities	Credit conditions
Lecture	Project. The pass mark is a positive mark. A credit - a total mark resulting from students' presentations (literature review, results of the work and their interpretation, summary), active participation in classes and timely completion of previously established tasks. A record of the assessment achieved by the student as part of the project milestone reports and the final report and its presentation.
Auditorium exercises	Project. The pass mark is a positive mark. A credit - a total mark resulting from students' presentations (literature review, results of the work and their interpretation, summary), active participation in classes and timely completion of previously established tasks. A record of the assessment achieved by the student as part of the project milestone reports and the final report and its presentation.

### Literature

#### Obligatory

- 1. Świderski F. (red.) (2003): Comfort food and functional food. WNT, Warsaw.
- 2. Shi J., Mazza G. (2002): Functional Foods, CRC PRES, London
- 3. Innovation in Healthy and Functional Foods, 1st Edition, Dilip Ghosh, Shantanu Das, Debasis Bagchi, R.B. Smarta, 2012, CRC Press
- 4. Probiotics and Prebiotics in Foods Challenges, Innovations, and Advances, Adriano Gomes da Cruz, C. Senaka Ranadheera, Filomena Nazzaro, Amir Mortazavian, 2021 Elsevier Inc.

#### Optional

- 1. Latest available scientific journals
- 2. Relevant scientific publications, including those of the course instructors

### **Calculation of ECTS points**

Activity form	Activity hours*
Lecture	30
Auditorium exercises	15
Preparing a report	30
Preparation of a multimedia presentation	10
Student workload	Hours
	85
Number of ECTS points	ECTS 3

\* hour means 45 minutes

# Effects

Code	Content
TN_K1_K01	The graduate is ready to contact and exchange of experiences and knowledge with the experts in order to explore better solutions for particular problems connected to among others: food production, delivery chain, food storage and human nutrition
TN_K1_U07	The graduate can communicate with the surrounding using specialist terminology appropriate for the field of study, including taking part in a discussion on professional issues, also using a foreign language in the field relevant to the field of study, in accordance with the requirements set out for B2 level of the European System for the Description of Education Linguistic
TN_K1_U08	The graduate can plan, organize and carry out, independently or in a team, simple project tasks related to food production and evaluation, human nutrition, and consumer behaviour
TN_K1_W03	The graduate knows and understands the composition and properties of raw materials, auxiliaries, food additives, and food industry products, the possibilities and conditions of use of them in food production, taking into account the principles of sustainable development and their impact on human health
TN_K1_W08	The graduate knows and understands rules and organization methods of the production and chain of food supply (planning, production organization, storage, distribution of food and food consumption in collective and individual nutrition) in accordance with the legal requirements of assurance of quality and food safety and the principles of sustainable development