

**SUBJECT CARD (SYLLABUS)**  
**Description of the subject**

Subject code		Subject	Podstawy żywienia człowieka	
BiJPŻ/P/I/NST/17			Fundamentals of human nutrition	
Lecture language		Polish		
Academic year		2023/2024		
Field of study		Safety and Quality of Food Production		
Within the scope of				
Level of the studies		first cycle		
Profile of the studies		practical		
Form of the studies		part-time		
Semester / semesters		II		
Membership of the group of classes		B1 Group of directional classes - compulsory		
Status of the subject		Compulsory		
Forms of realization of didactic classes, assessment, ECTS points		Form of the classes	Number of didactic hours	Number of ECTS points
		Lecture	18 [h]	5 ECTS
		Practical classes	9 [h]	
		...	...	
Connection of the subject	with the profile of the studies	Shapes the practical skills		3,0 ECTS
	with the entitlements	Its purpose is to acquire engineering competences by the student		1,0 ECTS
	with discipline	Chemical engineering Food and nutrition technology Management and quality sciences		1,5 ECTS 3,5 ECTS ---
Form of teaching		Traditional - classes organized at the University or classes carried out with the use of distance learning methods and techniques		
Preliminary requirements		All students of the Safety and Quality of Food Production.		
University		Faculty of Chemical Engineering and Commodity Science, Department of Management and Product Quality		
Coordinator				
Website		<a href="http://www.wicit.uniwersytetradom.pl">www.wicit.uniwersytetradom.pl</a>		
E-mail address, coordinator's phone number				

**RESULTS OF STUDYING, PROGRAMME CONTENT, CONDUCT OF DIDACTIC CLASSES, VERIFICATION OF THE RESULTS OF STUDYING**

Education aim:	The aim of the course is to familiarize students with the fundamental issues related to human nutrition.
Programme content:	<b>Lecture:</b> <ol style="list-style-type: none"> <li>Characteristics of basic nutrients: proteins, carbohydrates, lipids, minerals, vitamins - their role in human nutrition, needs and sources (7h, W1)</li> <li>The nutritional value of food. Indexes of the nutritional value of food products (INQ, RRR, CFN, NNR), and food rations (HDI) (1,5h, W1)</li> </ol>

	<ol style="list-style-type: none"> <li>Basic elements of human nutrition physiology. Structure of systems related to the absorption of food and mechanisms of regulating food intake (3h, W1)</li> <li>The body's energy needs and factors influencing them. Energy balance (1h, W1)</li> <li>Nutrition standards and their types (1h, W1)</li> <li>Principles of proper nutrition (1h, W1)</li> <li>Eating habits (0,5h, W1)</li> <li>Nutrition assessment methods (1h, W1)</li> <li>Types of diets used (1h, W1)</li> <li>The rules for composing menus (1h, W1)</li> </ol> <p><b>Practical classes:</b></p> <ol style="list-style-type: none"> <li>Analysis of the nutritional value of products based on the nutritional information placed on the packaging of food products (1h, U1, K1)</li> <li>Analysis of issues related to the impact of technological processing on the nutritional value of food based on published research papers (analysis of the state of knowledge and discussion) (3h, U1, K1)</li> <li>Assessment of the diet in terms of the amount of minerals and water supplied, diet modifications (2h, U1, K1)</li> <li>Qualitative and quantitative assessment of the individual diet - presentation of the results in the form of a multimedia presentation (1h, U1, K1)</li> <li>Calculation of selected nutritional quality indicators for product groups (1h, U1, K1)</li> <li>Test (1h)</li> </ol>
Didactic (education) methods:	<ul style="list-style-type: none"> <li>informative lecture</li> <li>seminar lecture</li> <li>didactic discussion</li> <li>practical methods (demonstration, exercises, workshops, work in groups)</li> </ul>
Pass discipline, evaluation criteria of the achieved learning results, calculation method of the final mark:	<p>The condition for completing the course is achieving all the required learning outcomes specified for the course. Obtaining positive grades from all forms of classes included in a given course is tantamount to completing it and obtaining by the student the number of ECTS points assigned to this course. The method of calculating the final grade for the course is specified in the study regulations.</p>

Results of learning a given subject in respect of direction effect and the form of the classes				Methods of verification of the results of learning	
Number of the result of learning	Description of the results of learning for a given subject Student, who passed a given subject knows and understands/ is able to/ is ready to:	Direction effect of learning	Form of classes	Form of verification (passes)	Methods of verification and assessment
W1	Student knows the principles, concepts, research methodology to the extent necessary to solve tasks and problems in the field of human nutrition. Student knows the properties, ingredients of the raw materials of food products, their quality and nutritional value.	K_WG01 K_WG02	lecture	Written test / oral answer	written exam
U1	Student is able to make a critical analysis and evaluate the existing solutions and implement: experiments and procedures aimed at producing a safe food product in accordance with the principles of human nutrition also using terminology in a foreign language, working in a group and creating consistent statements at the B2 level	K_UW03 K_UK05 K_UK06 K_UK07	practical classes	Written test / oral answer	written test, exercise reports
K1	Student understands the recognition of the importance and critical analysis of knowledge and the received content in solving cognitive and practical problems, as well as using expert opinions in the context of the principles of human nutrition.	K_KK01	practical classes	Written test / oral answer	written test, exercise reports

Literature and scientific support

**Basic literature:**

Gawęcki J., Hryniewicz L. (2010): Żywność człowieka – podstawy nauki o żywieniu. PWN Warszawa

Gertig H., Przysławski J. (2007): Bromatologia. Zarys nauki o żywności i żywieniu. PZWL Warszawa

Praca zbiorowa pod red. Jarosz, M. 2017: Normy żywienia dla populacji Polski. Instytut Żywności i Żywienia, Warszawa.

Praca zbiorowa pod red. Hasik J., Gawęcki J., (2000): Żywność człowieka zdrowego i chorego. PWN, Warszawa.

**Supplementary literature:**

Gawęcki J., Roszkowski, W. (2009): Żywność człowieka, a zdrowie publiczne. PWN Warszawa

Keller, J. (2000): Podstawy fizjologii żywienia człowieka, Wydawnictwo SGGW, Warszawa

Journal "Bromatologia i chemia toksykologiczna".

McClements, David Julian. *Food emulsions: principles, practices, and techniques*. CRC press, 2015.

Journals: "Bromatologia i chemia toksykologiczna", LWT -Food Science and Technology, Nutrients, Food Science and Nutrition, Polish Journal of Food and Nutrition Sciences

Amount of student's labour necessary to achieve the assumed effects of learning – ECTS points balance

Participation in the classes, activity	Student's burden [h]		
	Other contact hours	Classes without teachers - student's own work	Didactic classes
Participation in lectures	X	X	18 [h]
Participation in practical classes	X	X	9 [h]
Participation in consultations	28 [h]	X	X
Preparation for the classes Preparation for the pass	X	70 [h]	X
Summary student's workload	28 [h]/ 1,12 ECTS	70[h]/2,8 ECTS	27[h]/ 1,08
ECTS points for a subject	5 ECTS		

Additional information, notes

W przypadku studentów ze szczególnymi potrzebami, w tym: z niepełnosprawnością, przewlekle chorych, określone powyżej (w karcie) metody i formy weryfikacji efektów uczenia się dostosowuje się odpowiednio do indywidualnych potrzeb tych studentów.

Szczegółowe zasady i formy wsparcia studentów ze szczególnymi potrzebami: w tym z niepełnosprawnością, przewlekle chorych podczas zajęć, zaliczeń i egzaminów określono w: Regulaminie Studiów, Zasadach Studiowania, Procedurze dotyczącej zapewnienia dostępności procesu kształcenia studentom ze szczególnymi potrzebami, w tym: z niepełnosprawnością, przewlekle chorych.