



## Subject card

Subject name and code	Basis of Human Nutrition, PG_00054710						
Field of study	Biotechnology						
Date of commencement of studies	October 2022	Academic year of realisation of subject			2023/2024		
Education level	first-cycle studies	Subject group			Obligatory subject group in the field of study Subject group related to scientific research in the field of study		
Mode of study	Full-time studies	Mode of delivery			at the university		
Year of study	2	Language of instruction			Polish		
Semester of study	4	ECTS credits			2.0		
Learning profile	general academic profile	Assessment form			assessment		
Conducting unit	Department of Chemistry, Technology and Biochemistry of Food -> Faculty of Chemistry						
Name and surname of lecturer (lecturers)	Subject supervisor	prof. dr hab. inż. Agnieszka Bartoszek-Pączkowska					
	Teachers	prof. dr hab. inż. Agnieszka Bartoszek-Pączkowska dr inż. Szymon Mania dr hab. inż. Dorota Martysiak-Żurowska dr inż. Izabela Koss-Mikołajczyk					
Lesson types and methods of instruction	Lesson type	Lecture	Tutorial	Laboratory	Project	Seminar	SUM
	Number of study hours	15.0	0.0	15.0	0.0	0.0	30
	E-learning hours included: 0.0						
Learning activity and number of study hours	Learning activity	Participation in didactic classes included in study plan	Participation in consultation hours		Self-study	SUM	
	Number of study hours	30	2.0		18.0	50	
Subject objectives	Lectures on Basics of Human Nutrition are aimed at familiarising students with the basic concepts and definitions concerning food and its impact on human organism. The emphasis is placed on parameters and nutritional norms that must be known to food producers, to whom graduates of biotechnology disciplines belong. The role of food components for consumers' health is also discussed.						

Learning outcomes	Course outcome	Subject outcome	Method of verification
	K6_W09	Students knows how the sensory assessment of foods is performed. Student learns how the digestibility of foods id assessed. Student learns how to extract and to assess the quality of fats isolated from foodstuffs. Student knows a method of food antioxidant activity assessment.	[SW1] Assessment of factual knowledge
	K6_W05	Student understands what role plays food and nutrition in the development and prevention of diseases as well as in the proper development of newborns and infants. Student has the knowledge on future foods such as e.g. food for space flights.	[SW1] Assessment of factual knowledge
	K6_U01	Student learns about basic terms and definitions applied in food and nutrition sciences. Student understands the significance of nutritional norms and their practical applications.	[SU2] Assessment of ability to analyse information [SU3] Assessment of ability to use knowledge gained from the subject
	K6_U09	Student learns about food significance for wellbeing in the evolutionary context and understands the importance of individual food components for organism's function. Student recognises basic mechanisms of food digestion and utilisation of food components in human organism.	[SU2] Assessment of ability to analyse information [SU3] Assessment of ability to use knowledge gained from the subject
Subject contents	<p>Basic definitions applied in the food and nutrition sciences.</p> <p>Nutritional and toxicological norms.</p> <p>The significance of nutrition in the development and prevention of diseases as well as in the proper development of newborns and infants.</p> <p>The methodology of sensory analysis taking alcohol free beer as an example. The observation of nutrients release from food products in the presence and absence of digesting enzymes. Isolation and quality assessment of fats isolated from foodstuffs. The determination of antioxidant for selected food items by FRAP test.</p>		
Prerequisites and co-requisites	The basic competence in chemistry, in particular in the area of thermodynamics and chemical analysis. The acquaintance of basic laboratory skills.		
Assessment methods and criteria	Subject passing criteria	Passing threshold	Percentage of the final grade
	Lecture - written exam	50.0%	70.0%
	Laboratory - entry test and report	50.0%	30.0%
Recommended reading	Basic literature	<p>"Żywnie człowieka" Tom 1. Podstawy Nauki o Żywieniu, pod redakcją Jana Gawędzkiego, PWN 2022.</p> <p>"Norma Żywnienia dla Populacji Polski i ich zastosowanie" pod redakcją Mirosława Jarosza, Ewy Rychlik, Katarzyny Stoś, i Jadwigi Charzewskiej, Narodowego Instytutu Zdrowia Publicznego Państwowego Zakładu Higieny (NIZP-PZH), 2020</p>	
	Supplementary literature	Scientific literature on the subject.	
	eResources addresses	<p>Adresy na platformie eNauczanie:</p> <p>Podstawy Żywnienia Człowieka - Moodle ID: 37632  <a href="https://enauczanie.pg.edu.pl/moodle/course/view.php?id=37632">https://enauczanie.pg.edu.pl/moodle/course/view.php?id=37632</a></p>	

Example issues/ example questions/ tasks being completed	<p>What is a nutrient by definition.</p> <p>On what depends the protein requirement according to nutritional norms.</p> <p>What the names probiotics and probiotics describe? Discuss their role in nutrition.</p> <p>Discuss the major recommendations in newborns' nutrition.</p> <p>How it is performed and what is the aim of sensory analysis of foodstuffs?</p>
Work placement	Not applicable