University of Gdańsk

Subject card

Subject name and code	Food Production Technology, PG_00080759		
Field of study	Chemical Business		
Date of commencement of studies	October 2024	Academic year of realisation of subject	2026/2027
Education level	Bachelor's studies	Subject group	Optional subject group
Mode of study	full-time studies	Mode of delivery	at the university
Year of study	3	Language of instruction	Polish Polish
Semester of study	6	ECTS credits	1.0
Learning profile	academic	Assessment form	credit
Conducting unit	Department of Environmental Technology -> Faculty of Chemistry -> Rector		
Name and surname of lecturer (lecturers)	Subject supervisor	prof. dr hab. Adam Lesner	
	Teachers		

Lesson types

Lesson type	Lecture	Tutorial	Laboratory	Project	Seminar	SUM
Number of study hours	15.0	0.0	0.0	0.0	0.0	15

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	15	2.0	8.0	25

Subject objectives

-To familiarize students with food processing- To familiarize students with selected equipment used in the food industry

Learning outcomes

Course outcome	Subject outcome	Method of verification
[BCHINŻ_U05] Evaluates the usefulness and functioning of existing engineering and technical solutions as well as research and measurement methods in the chemical industry.	The student independently,and critically using data publicly available in the literature, evaluates examples of unit processes used in food chemistry	[SU6] demonstration of practical skills [SU8] observation of student's independent or team work
[BCHINŻ_W06] Enumerates basic unit processes and describes issues in the field of technology and chemical engineering.	Student rozumie pojęcie procesu jednostkowego i jest w stanie zidentyfikować taki proces oraz podać wybrane przykłady użyteczne w chemii żywności.	[SW4] test/exam - oral or written
[BCHINŻ_W07] Describes the construction and operating principles of basic scientific, technological and control-measuring apparatus.	Student describes the life cycle of technical equipment, objects and systems and modern pro-environmental technical solutions	[SW1] oral statement/ conversation/discussion
[BCHINŻ_K03] Independently sets or implements a set action plan specifying priorities for its implementation; critically assesses its progress.	When performing experiments, the student cooperates with the other members of the group, plans the order in which to perform the various stages of work; observes the rules of the laboratory and the instructor's instructions; verifies the results obtained in various sources	[SK6] demonstration of practical skills [SK8] observation of student's independent or team work
[BCHINŻ_K02] Works individually demonstrating initiative and independence in actions, and effectively cooperates in a team, performing various roles in it.	The student conducts a series of experiments, working with other members of the student team using the Polish-language manual,	[SK5] implementation of a problem task [SK6] demonstration of practical skills [SK8] observation of student's independent or team work
[BCHINŻ_U08] Uses the chemical nomenclature and engineering terminology properly.	The student is able to describe basic technological processes and unit processes using Polish-language sources	[SU1] oral statement/conversation/ discussion [SU6] demonstration of practical skills
[BCHINŻ_W05] Describes the life cycle of devices, facilities and technical systems as well as modern environment-friendly technical solutions.	The student, on the basis of available examples discusses the usefulness and effectiveness of specific technical solutions used in food chemistry.	[SW4] test/exam - oral or written [SW2] presentation/project/paper/ report
[BCHINŻ_K04] Demonstrates responsibility for the safety of her/ his own and others' work.	The student is careful when working with chemical reagents and specialized apparatus, pays attention to the dangers of the nature of selected chemicals	[SK6] demonstration of practical skills [SK8] observation of student's independent or team work
[BCHINŻ_W01] Describes the relationship between the economy and the functioning of the chemical industry.	The student, on the basis of available data, relates basic economic concepts to the processes of food chemistry.	[SW4] test/exam - oral or written [SW2] presentation/project/paper/ report

Subject contents

A. Problems of the lecture

Pretreatment of food raw materials. Mechanical operations in the food industry. Thermal operations in the food industry. Diffusion operations in the food industry. Physical and chemical processes in the food industry. Chemical processes in the food industry. Biotechnological processes in the food industry. Cereal processing. Processing of oil raw materials. Processing of potatoes. Processing of sugar beets. Fruit and vegetable processing. Fermentation industry.B. Laboratory problems

Production of wine. Production of beer. Meat processing technology. Fruit and vegetable processing technology.

Prerequisites and co-requisites

Fundamentals of inorganic, organic and analytical chemistry

Assessment methods and criteria

Subject passing criteria	Passing threshold	Percentage of the final grade
lab test	51.0%	20.0%
written exam	51.0%	80.0%

Recommended reading	Basic literature	A. Literature needed for final exam red. Ewy Czarnieckiej-Skubina, Technologia żywności cz. 1 Podstawy technologii żywności, Ab format, Warszawa 2010 red. Ewy Czarnieckiej-Skubina, Technologia żywności cz. 2 Technologie kierunkowe tom 1, Ab format, Warszawa 2011 red. Ewy Czarnieckiej-Skubina, Technologia żywności cz. 2 Technologie kierunkowe tom 2, Ab format, Warszawa 2012 red. Marek Zin , Technologia żywności i żywienia, Wydawnictwo Uniwersytetu Rzeszowskiego, Rzeszów 2014
	Supplementary literature	non aplicable
	eResources addresses	
Example issues/ example questions/ tasks being completed	1. value and nutrient density 2. describe examples of food preservation process3. suggest a production cycle for any product	
Work placement	Not applicable	

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