University of Gdańsk

Subject card

Subject name and code	Food Production Technology, PG_00080760		
Field of study	Chemical Business		
Date of commencement of studies	October 2024	Academic year of realisation of subject	2026/2027
Education level	undergraduate 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	
Conducting unit	Katedra Technologii Środowiska -> Faculty of Chemistry -> Rektor		
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	0.0	0.0	15.0	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	The purpose of the course is to familiarize the students with the following issues:1. properties and types of food2. unit processes in food production3. examples of production lines used in food production

Learning outcomes

Course outcome	Subject outcome	Method of verification
[BCHINŻ_U08] Uses the chemical nomenclature and engineering terminology properly.	The student uses the correct terminology related to food processing and production.	[SU1] oral statement/conversation/ discussion [SU4] test/exam - oral or written
[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 critically analyzes technical solutions for food production, compares their usability and the end result of their operation	[SU4] test/exam - oral or written [SU8] observation of student's independent or team work
[BCHINŻ_W05] Describes the life cycle of devices, facilities and technical systems as well as modern environment-friendly technical solutions.	The student, using the correct nomenclature of the subject can describe the basic apparatus used in food production, and discuss the impact of a particular apparatus on the environment.	[SW4] test/exam - oral or written
[BCHINŻ_W06] Enumerates basic unit processes and describes issues in the field of technology and chemical engineering.	Students will be able to list and describe the unit processes used in food production	[SW4] test/exam - oral or written [SW1] oral statement/ conversation/discussion
[BCHINŻ_K02] Works individually demonstrating initiative and independence in actions, and effectively cooperates in a team, performing various roles in it.	The student determines, based on the literature and laboratory instructions, the sequence of activities that lead to the final result, which is the implementation of a specific process. Demonstrates the ability to work individually and collaboratively in a group.	[SK1] oral statement/conversation/ discussion [SK5] implementation of a problem task [SK8] observation of student's independent or team work
[BCHINŻ_K04] Demonstrates responsibility for the safety of her/ his own and others' work.	During laboratory exercises, the student is able to assess the risks and countermeasures for their occurrence.	[SK1] oral statement/conversation/ discussion [SK6] demonstration of practical skills
[BCHINŻ_W01] Describes the relationship between the economy and the functioning of the chemical industry.	The student is able to list the factors that determine the profitability of a particular enterprise within food production, identifies the financial and environmental factors associated with a particular mode of production.	[SW4] test/exam - oral or written
[BCHINŻ_K03] Independently sets or implements a set action plan specifying priorities for its implementation; critically assesses its progress.	The student independently or in groups organizes laboratory work, establishes a schedule of activities and determines their hierarchy.	[SK6] demonstration of practical skills [SK8] observation of student's independent or team work
[BCHINŻ_W07] Describes the construction and operating principles of basic scientific, technological and control-measuring apparatus.	The student, using the appropriate specialized vocabulary, can describe the structure and principles of operation of selected technical solutions used in food production.	[SW4] test/exam - oral or written

Subject contents

A. Problems of the lecture Pre-treatment 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 industryB. Laboratory problems Production of wine. Production of beer. Meat processing technology. Fruit and vegetable processing technology

Prerequisites and co-requisites

Fundamentals of food chemistry

Assessment methods and criteria

Subject passing criteria	Passing threshold	Percentage of the final grade
lecture	51.0%	70.0%
lab	51.0%	30.0%

Recommended reading

Basic literature	A. Literature required for final course credit (passing the exam): ed. by Ewa Czarniecka-Skubina, Food Technology cz. 1 Fundamentals of Food Technology, Ab format, Warsaw 2010 ed. by Ewa Czarniecka-Skubina, Food Technology cz. 2 Technologie kierunkowe tom 1, Ab format, Warsaw 2011 ed. by Ewa Czarniecka-Skubina, Food Technology cz. 2 Technologie kierunkowe tom 2, Ab format, Warsaw 2012 ed. by Marek Zin , Food and Nutrition Technology, Wydawnictwo Uniwersytetu Rzeszowskiego, Rzeszów 2014
Supplementary literature	none
eResources addresses	Adresy na platformie eNauczanie:

Example issues/ example questions/ tasks being completed

1. types of food2. highly processed foods3. thermal processing

Work placement	Not applicable

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