



Subject card

Subject name and code	The history of the beer revolution in Poland and around the world, PG_00071024						
Field of study	Mathematics						
Date of commencement of studies	October 2025	Academic year of realisation of subject				2025/2026	
Education level	second-cycle studies	Subject group					
Mode of study	Full-time studies	Mode of delivery				e-learning	
Year of study	1	Language of instruction				Polish	
Semester of study	2	ECTS credits				2.0	
Learning profile	general academic profile	Assessment form				assessment	
Conducting unit	Department of Power Electronics and Electrical Machines -> Faculty of Electrical and Control Engineering -> Faculties of Gdańsk University of Technology						
Name and surname of lecturer (lecturers)	Subject supervisor		dr hab. inż. Roland Ryndzionek				
	Teachers		dr hab. inż. Roland Ryndzionek				
Lesson types	Lesson type	Lecture	Tutorial	Laboratory	Project	Seminar	SUM
	Number of study hours	30.0	0.0	0.0	0.0	0.0	30
	E-learning hours included: 30.0						
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	Subject objectives Introduction to brewing in Poland and around the world. The role of engineers in the automation of breweries and production. Familiarization with historical beer styles produced in Gdańsk and other regions of Poland. Introduction to sensory characteristics, desirable aromas and defects, facts and myths. Discussion of the beer revolution in Poland and around the world. Dynamic growth of non-alkoholic beers.						
Learning outcomes	Course outcome		Subject outcome		Method of verification		
	[K7_U71] is able to apply knowledge from humanistic, social, economic or legal sciences in order to solve problems		Can apply historical, cultural, and legal knowledge to analyze phenomena and processes related to brewing.		[SU2] Assessment of ability to analyse information		
	[K7_K71] is able to explain the need to apply knowledge from humanistic, social, economic or legal sciences in order to function in a social environment		Knows and applies the rules governing sensory evaluation.		[SK3] Assessment of ability to organize work		
	[K7_W71] has general knowledge in humanistic, social, economic or legal sciences, including their fundamentals and applications		Has general knowledge of the history of brewing in Gdańsk and Poland.		[SW1] Assessment of factual knowledge		
Subject contents	Course content – lecture Subject contents Historical overview. Discussion of historical beer styles brewed in Gdańsk (including beers brewed by Johannes Hevelius), Poland, and around the world. What is industrial and home brewing? Process automation and introduction to industrial issues known, among others, at the Amber Brewery. Non-alkoholic beers. Beer brewing methods, yeast propagation, types of hops, bottom and top fermentation. Is brewing legal in Poland (and legal regulations applicable in Europe). Introduction to the sensory characteristics of beer beer evaluation according to BJCP and PSPD criteria.						
Prerequisites and co-requisites							
Assessment methods and criteria	Subject passing criteria		Passing threshold		Percentage of the final grade		
	test		50.0%		100.0%		

Recommended reading	Basic literature	Denis De Keukeleire. Fundamentals of beer and hop chemistry, Quím. Nova 23 (1) Feb 2000 Adom KK, Liu RH.. Antioxidant activity of grains. J Agric Food Chem 50:61827, 2002. Uzupełniająca lista lektur Stan Hieronymus, Brew Like a Monk J. Herz & A. Dulye.: Beer & Food Course, Brewers Association John J. Palmer.: Jak warzyć piwo. Kompendium wiedzy piwowara domowego. 2020
	Supplementary literature	Jerzy Gibadło.: Wybierz sobie piwo. Przewodnik po stylach piwnych, 2021 Piwowar, polski kwartalnik piwowarski Wiki.piwo.org
	eResources addresses	
Example issues/ example questions/ tasks being completed	What is infusion mashing, single-temperature mashing? Examples of mechatronic systems in industrial breweries.	
Practical activities within the subject	Not applicable	

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