University of Gdańsk

Subject card

Subject name and code	Chemistry in practice, PG_00080722						
Field of study	Chemical Business						
Date of commencement of studies	October 2025		Academic year of realisation of subject	2026/2027			
Education level	Bachelor's 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	1.0			
Learning profile	academic		Assessment form	credit			
Conducting unit	Laboratory of Carbohydrate Chemistry -> Department of Organic Chemistry -> Faculty of Chemistry -> Rector						
Name and surname of lecturer (lecturers)	Subject supervisor		dr hab. Janusz Madaj				
	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	familiarizing students with the issues mentioned in the lecture program content, familiarize students with the basic economic principles of the chemical industry, developing the ability to critically evaluate and interpret the presented information and analyze source texts						

<table>
<tr><td>Learning outcomes</td><td>
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<tr><th>Course outcome</th><th>Subject outcome</th><th>Method of verification</th></tr>
<tr><td>[BCHINŻ_U05] Evaluates the usefulness and functioning of existing engineering and technical solutions as well as research and measurement methods in the chemical industry.</td><td>1. uses chemical terminology to the extent necessary to present (in written and oral form) the course content
2. predicts the course of selected industrial chemical reactions and the products of these transformations
3. uses basic analytical techniques used in the analysis of industrial products
4. can indicate engineering techniques important in the chemical industry
5. can indicate important economic aspects of the chemical industry</td><td>[SU4] test/exam - oral or written</td></tr>
<tr><td>[BCHINŻ_U08] Uses the chemical nomenclature and engineering terminology properly.</td><td>1. uses chemical terminology to the extent necessary to present (in written and oral form) the course content
2. predicts the course of selected industrial chemical reactions and the products of these transformations
3. uses basic analytical techniques used in the analysis of industrial products
4. can indicate engineering techniques important in the chemical industry
5. can indicate important economic aspects of the chemical industry</td><td>[SU4] test/exam - oral or written</td></tr>
<tr><td>[BCHINŻ_W01] Describes the relationship between the economy and the functioning of the chemical industry.</td><td>1. defines and presents selected chemical processes and engineering methods in the chemical industry
2. describes and illustrates selected industrial processes using chemical reactions
3. understands the connections and dependencies between economics and the functioning of the chemical industry</td><td>[SW4] test/exam - oral or written</td></tr>
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<tr><td>Subject contents</td><td>As part of the course, students will become familiar with selected aspects of the functioning of the chemical industry. They will include information about the dyeing, food and biochemical industries. There will be information about technological processes and engineering techniques used in various branches of the chemical industry (various types of fermentations, techniques used in the metallurgical, electronics and biomedical industries). Economic issues of the functioning of the chemical industry and its importance in the functioning of the country's economy will be presented and discussed.</td></tr>
<tr><td>Prerequisites and co-requisites</td><td>Basic knowledge of general and organic chemistry</td></tr>
<tr><td>Assessment methods and criteria</td><td>
<table>
<tr><th>Subject passing criteria</th><th>Passing threshold</th><th>Percentage of the final grade</th></tr>
<tr><td>Pass with grade</td><td>51.0%</td><td>100.0%</td></tr>
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<tr><td>Recommended reading</td><td>
<table>
<tr><td>Basic literature</td><td>Ali El Ali Speight, Handbook of Industrial Chemistry Organic Chemicals
Supplementary materials provided during classes, online materials</td></tr>
<tr><td>Supplementary literature</td><td>non</td></tr>
<tr><td>eResources addresses</td><td></td></tr>
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<tr><td>Example issues/ example questions/ tasks being completed</td><td>Consistent with the content of the lecture</td></tr>
<tr><td>Work placement</td><td>Not applicable</td></tr>
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