University of Gdańsk

Subject card

Subject name and code	Prototyping and elements of technological process design, PG_00134600		
Field of study	Chemistry		
Date of commencement of studies	October 2024	Academic year of realisation of subject	2025/2026
Education level	postgraduate studies	Subject group	Obligatory subject group 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	3	ECTS credits	1.0
Learning profile	academic	Assessment form	
Conducting unit	Pracownia Fotokatalizy -> Katedra Technologii Środowiska -> Faculty of Chemistry		
Name and surname of lecturer (lecturers)	Subject supervisor	dr inż. Joanna Nadolna	
	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

- Familiarizing students with intellectual property issues,
- Introducing students to the process of writing a patent application, including patent claims,
- Introducing students to the concept of design thinking,
- Familiarizing students with ways of presenting their own ideas,
- Familiarizing students with elements of technology design.

Learning outcomes

Course outcome	Subject outcome	Method of verification
[CHEMMU2_W06] Applies mathematics to the extent necessary to understand, describe and model chemical processes of medium complexity.	The student is able to perform a material balance for the designed product.	[SW2] presentation/project/paper/ report
[CHEMMU2_K01] Knows the limitations of her/his own knowledge; understands the need for further education and can inspire other people to do so.	The student understands the importance of systematically familiarizing themselves with the latest chemical literature (including patents and articles from scientific and popular science journals). They also understand the need for deepening interdisciplinary knowledge.	[SK8] observation of student's independent or team work
[CHEMMU2_K02] Works in a team taking on various roles in it.	The student understands the need for teamwork.	[SK8] observation of student's independent or team work
[CHEMMU2_W08] Demonstrates knowledge of theoretical computational and IT methods used to solve problems in chemistry.	The student is able to perform a material balance for the designed product.	[SW2] presentation/project/paper/ report
[CHEMMU2_U01] Plans and implements chemical experiments of medium complexity.	Plans and carries out experiments to produce a product designed by themselves on a laboratory scale.	[SU2] presentation/project/paper/ report

Subject contents

- Development of technology and prototyping of the designed product.

<table>
<tr><td>Prerequisites and co-requisites</td><td colspan="3">Basic knowledge of English.</td></tr>
<tr><td>Assessment methods and criteria</td><td colspan="3"><table><tr><th>Subject passing criteria</th><th>Passing threshold</th><th>Percentage of the final grade</th></tr><tr><td>Project</td><td>51.0%</td><td>100.0%</td></tr></table></td></tr>
<tr><td rowspan="3">Recommended reading</td><td>Basic literature</td><td colspan="2">• Unpublished materials provided to students during classes.
• Patent descriptions of selected technologies. The patent descriptions will be sourced from free patent databases.</td></tr>
<tr><td>Supplementary literature</td><td colspan="2">no</td></tr>
<tr><td>eResources addresses</td><td colspan="2">Adresy na platformie eNauczanie:</td></tr>
<tr><td>Example issues/ example questions/ tasks being completed</td><td colspan="3"></td></tr>
<tr><td>Work placement</td><td colspan="3">Not applicable</td></tr>
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