GDAŃSK UNIVERSITY OF TECHNOLOGY

Subject card

Subject name and code	Modern polymer and composite materials for smart sportswear, PG_00069278		
Field of study	Chemical Technology		
Date of commencement of studies	February 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	at the university
Year of study	1	Language of instruction	Polish
Semester of study	2	ECTS credits	3.0
Learning profile	general academic profile	Assessment form	assessment
Conducting unit	Department of Polymer Technology -> Faculty of Chemistry -> Wydziały Politechniki Gdańskiej		
Name and surname of lecturer (lecturers)	Subject supervisor	dr hab. inż. Michał Strankowski	
	Teachers		

Lesson types and methods of instruction

Lesson type	Lecture	Tutorial	Laboratory	Project	Seminar	SUM
Number of study hours	30.0	0.0	0.0	15.0	0.0	45

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	45	5.0	25.0	75

Subject objectives

This course is designed to immerse students in the cutting-edge developments of polymer and composite materials for sportswear. We'll explore the fascinating world of "smart textiles," covering materials that offer thermoregulation, sensory capabilities, and bio-monitoring. By the end, students will be adept at conceptually designing functional sports products through a materials engineering lens.

Learning outcomes

Course outcome	Subject outcome	Method of verification
[K7_U08] assesses the potential for commercialisation of a product or technology based on an analysis of scientific publications and patents	The student is able to evaluate the commercialization potential of a product or technology based on the analysis of scientific publications and patents.	[SU5] Assessment of ability to present the results of task [SU2] Assessment of ability to analyse information
[K7_W101] is able to make an in-depth identification of key objects and phenomena related to the field of study, as well as theories that describe them and applicable analytical and design methods	The student is able to identify in depth key objects and phenomena related to the studied field, as well as the theories describing them and applicable analytical and design methods.	[SW1] Assessment of factual knowledge
[K7_K01] critically evaluates the content of cognitive and practical problems	The student is able to critically evaluate content related to cognitive and practical problems.	[SK3] Assessment of ability to organize work [SK2] Assessment of progress of work
[K7_U01] designs experiments using computer methods of data analysis, computer simulations and based on the state of the knowledge in accordance with the latest scientific literature	The student is able to design experiments using computer-based data analysis methods, computer simulations, and based on the current state of knowledge consistent with the latest scientific literature.	[SU4] Assessment of ability to use methods and tools [SU1] Assessment of task fulfilment
[K7_W05] recognises the key developments in research, apparatus and technology in technology and related fields	The student is able to recognize key directions of research, apparatus, and technique development in technology and related fields.	[SW1] Assessment of factual knowledge

Subject contents	-
Prerequisites and co-requisites	-

Assessment methods and criteria	Subject passing criteria	Passing threshold	Percentage of the final grade
	Report (final test + presentation)	50.0%	50.0%
	Final test	50.0%	50.0%
Recommended reading	Basic literature	-	
	Supplementary literature	-	
	eResources addresses		
Example issues/ example questions/ tasks being completed	-		
Work placement	Not applicable		

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