GDAŃSK UNIVERSITY OF TECHNOLOGY

Subject card

Subject name and code	STRATEGIES AND TECHNIQUES OF EFFECTIVE LEARNING, PG_00070667		
Field of study			
Date of commencement of studies	October 2026	Academic year of realisation of subject	2026/2027
Education level	first-cycle 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	1	Language of instruction	English
Semester of study	1	ECTS credits	1.0
Learning profile	general academic profile	Assessment form	assessment
Conducting unit	Administration, Faculty of Management and Economics -> Faculty of Management and Economics -> Faculties of Gdańsk University of Technology		
Name and surname of lecturer (lecturers)	Subject supervisor	mgr Alina Guzik	
	Teachers		

Lesson types

Lesson type	Lecture	Tutorial	Laboratory	Project	Seminar	SUM
Number of study hours	0.0	15.0	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	3.0	7.0	25

Subject objectives

To prepare students to consciously and effectively plan and improve their own learning process by applying strategies and techniques that support memory, comprehension, and knowledge transfer, based on knowledge of learning psychology and study skills methodology, as well as to develop attitudes related to responsibility for personal development and lifelong learning in academic and professional contexts.

Learning outcomes

Course outcome	Subject outcome	Method of verification
[K6_U06] acquires specialized knowledge in the field of engineering management, demonstrating the ability to effectively plan individual work and pursue lifelong learning.	is able to plan and organize the process of acquiring specialized knowledge in study field by applying effective learning strategies and techniques, including setting learning goals, selecting appropriate individual work methods, and monitoring their progress within a lifelong learning framework.	[SU4] Assessment of ability to use methods and tools
[K6_K03] is prepared to critically assess the knowledge they possess, which is necessary for solving cognitive and practical problems, and to supplement any gaps with opinions from external experts.	is ready to critically evaluate their knowledge and applied learning strategies in solving cognitive and practical problems, particularly by identifying personal competence gaps and using expert opinions and specialized sources to improve their own learning process	[SK5] Assessment of ability to solve problems that arise in practice

Subject contents	Course content – exercises 1. Introduction to the learning process and cognitive mechanisms involved in knowledge acquisition 2. Differences between passive and active learning and their impact on knowledge retention 3. Active learning strategies 4. Deep processing of information in the learning process 5. Mechanisms of forgetting and strategies for long-term knowledge retention 6. Knowledge retrieval strategies and learning through testing 7. Techniques for effective memorization and mnemonic methods 8. Meta-learning and developing awareness of ones own learning strategies 9. Common cognitive errors related to learning 10. Using images, associations, and multiple cognitive channels in learning 11. The role of motivation in the learning process and stimulating dormant curiosity 12. The influence of stress and emotions on the learning process and methods of regulating cognitive tension 13. Conditions conducive to concentration 14. Planning the learning process over time and strategies of spaced repetition 15. Time management, cognitive energy management, and learning environment management 16. Self-regulation and building learning habits 17. Use of digital tools (including AI) that support the learning process
Prerequisites and co-requisites	
Assessment methods and criteria	

Subject passing criteria	Passing threshold	Percentage of the final grade
Individual report	60.0%	60.0%
Tasks completed during the classes	60.0%	40.0%

Recommended reading	Basic literature	1. Brown P. C., Chabrajska D., McDaniel M. A., Roediger H. L. 2016. Harvardzki poradnik skutecznego uczenia się. Warszawa: Instytut Wydawniczy Pax. 2. Daniel L. Schwartz, Jessica M. Tsang, Kristen P. Blair, 2017 Jak się uczymy? 26 naukowo potwierdzonych mechanizmów, Wydawnictwo Naukowe PWN 3. Gołębiowska-Szychowska, Szychowski Ł. 2019. Powiem ci, jak się uczyć. Przewodnik dla ambitnych nauczycieli i rodziców 4. Robert M. Martin. 2024. Metody efektywnej nauki. Praktyczny podręcznik, Sensus 5. Dehaene S. 2022., Jak się uczymy? Dlaczego mózgi uczą się lepiej niż komputery... jak dotąd. Copernicus Center Press 6. Leitner S. 2011., Naucz się uczyć. Cztery Głowy
	Supplementary literature	1. Kotarski R., 2017. Włam się do mózgu, Altenberg 2. Boral B., Boral T., 2022., Techniki zapamiętywania. Ucz się od mistrzów pamięci!, Samo Sedno 3. Young, S, H., 2024., Zostań ultrasamoukiem. Jak opanować twarde umiejętności w zadziwiająco krótkim czasie, Sensus 4. Pool R., Anders E., 2020., Droga na szczyt. Jak ćwiczyć, aby osiągnąć mistrzowską biegłość w dowolnej dziedzinie. Freedom Publishing 5. Oakley B., Rogowsky B., Sejnowski T., J., 2021., Naucz się nauczania, Sensus 6. Boser U., 2017., Learn Better, Rodale Books
	eResources addresses	
Example issues/ example questions/ tasks being completed	• Analysis of one's own learning strategies and identification of factors that facilitate and hinder learning • Comparison of passive and active learning methods using selected material as an example • Designing test questions that support learning by extracting knowledge • Analysis of typical cognitive errors related to the assessment of one's own knowledge • Identification of factors affecting concentration and learning effectiveness • Application of selected memorization techniques and mnemonics in learning new information • Development of a revision plan using the strategy of spaced learning	
Practical activites within the subject	Not applicable	

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