



Subject card

Subject name and code	Effective Learning and Development, PG_00059643						
Field of study	Civil Engineering						
Date of commencement of studies	October 2025		Academic year of realisation of subject		2025/2026		
Education level	first-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	1		ECTS credits		1.0		
Learning profile	general academic profile		Assessment form		assessment		
Conducting unit	Innovative Education Center -> Vice-Rector For Education						
Name and surname of lecturer (lecturers)	Subject supervisor		dr hab. Joanna Mytnik				
	Teachers						
Lesson types and methods of instruction	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		0.0		0.0	15
Subject objectives	Understanding the neuroscientific basis of learning: memory trace, types of memory, role of hippocampus, effective and ineffective learning strategies, tools for effective learning, deep work, two modes of the brain, motivation, reward system, habits, procrastination, growth mindset, role of sleep, physical activity, meditation in creating memory traces. A neuroscientific perspective on mental well-being, managing stress levels, developing good habits.						
Learning outcomes	Course outcome		Subject outcome		Method of verification		
	[K6_K71] is conscious of the need to apply knowledge from humanistic, social, economic or legal sciences in order to function in a social environment		Is aware of the need to use knowledge of neuroscience to improve one's learning competence		[SK5] Assessment of ability to solve problems that arise in practice		
	[K6_U71] is able to apply knowledge from humanistic, social, economic or legal sciences in order to solve problems in a social environment		Is able to apply knowledge of neuroscience in orgaqnizing his learning process		[SU4] Assessment of ability to use methods and tools		
	[K6_W71] has general knowledge in humanistic, social, economic or legal sciences		has a general knowledge of neuroscience		[SW1] Assessment of factual knowledge		

Subject contents	Module 1. Effective learning.		
	1. The illusion of competence. 2. The process of creating memory traces (remembering). 3. Short-term and long-term memory. 4. Two learning modes (concentrated and distracted) 5. Conditions for effective learning: <ul style="list-style-type: none">• Attitude (power of the words "not yet", research by Dr. Carol Dweck)• Model of "spaced repetition" work, the curve of forgetting• Sleep: role in learning and wellbeing, the chronometer of the 18-teenager's brain.• Physical activity: role in the process of creating memory• Breaks: role in the process of remembering• The reward system in the brain: motivation, habits, the Pomodoro technique, self-gamification. 6. Learning tools: <ul style="list-style-type: none">• Flashcards• Mind maps		
	Module 2. What should you know about the brain? The greatest myths and facts of neuroscience.		
	1. Motivation: Goal Perception (Dr. Emily Balcatis research) 2. Multitasking and concentrated work. 3. FOMO, addiction to being online. 4. Why school grades destroy motivation. 5. Handwriting and typing. 6. Reading printed books and listening to audiobooks. 7. How do books change our brain?8. How does stress work in the body? 11. Meditation and the brain. 12. Practicing gratitude and motivation. 13. A list of 100 things that can improve your life. 14. Learning addiction.15. The influence of alcohol on brain development.		
	Module 3. Getting to know oneself and managing tasks and oneself in time.		
	1. Procrastination: what is it, how to counteract it. 2. Self-management in time. 3. To-do lists, prioritization, time-blocking, deep learning, "goodbye to work". 4. Reflective development diary. 5. Tools for recognizing natural talents. 6. Introvertism, extrovertism, highly sensitive people - what is worth knowing? 7. Ability to navigate in the world of fake news, critical thinking. 8. 7 things you need to do in college. 9. How the business world sees you: CV, LinkedIn. 10. Featured books, TED (x) speeches and online courses.		
	Prerequisites and co-requisites		
	Motivation for active work during classes.		
Assessment methods and criteria	Subject passing criteria		
	Passing threshold		
	Percentage of the final grade		
	4 quizzes		
	80.0%		
	50.0%		
	Mindmap Project "Conditions for Effective Learning"		
	80.0%		
	50.0%		
Recommended reading	Basic literature		
	Peter C. Brown, Mark A. McDaniel, Henry L. Roediger III "Harvard Guide to Effective Learning" 2020 PAX Publishing Institute.		
	Supplementary literature		
	Duhigg Charles. 2013 The Power of Habit. Why we do what we do and how to change it in life and business. PWN. https://www.coursera.org/learn/learning-how-to-learn		
	eResources addresses		
	Adresy na platformie eNauczanie:		

Example issues/ example questions/ tasks being completed	The role of the Hippocampus in the formation of memory traces. Examples of the illusion of competence. The role of sleep in memory formation.
Work placement	Not applicable

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