



Subject card

Subject name and code	Effective Learning and Development, PG_00059643						
Field of study	Civil Engineering						
Date of commencement of studies	October 2026	Academic year of realisation of subject				2026/2027	
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 Student Experience						
Name and surname of lecturer (lecturers)	Subject supervisor		dr hab. Joanna Mytnik				
	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	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_W71] has general knowledge in humanistic, social, economic or legal sciences		has a general knowledge of neuroscience		[SW1] Assessment of factual knowledge		
	[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 organizing his learning process		[SU4] Assessment of ability to use methods and tools		
	[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		

Subject contents	<p>Course content – lecture</p> <p>Module 1. Effective learning.</p> <ol style="list-style-type: none"> 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 <p>Module 2. What should you know about the brain? The greatest myths and facts of neuroscience.</p> <ol style="list-style-type: none"> 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. <p>Module 3. Getting to know oneself and managing tasks and oneself in time.</p> <ol style="list-style-type: none"> 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	<table border="1"> <thead> <tr> <th data-bbox="448 1704 794 1738">Subject passing criteria</th> <th data-bbox="794 1704 1141 1738">Passing threshold</th> <th data-bbox="1141 1704 1477 1738">Percentage of the final grade</th> </tr> </thead> <tbody> <tr> <td data-bbox="448 1738 794 1794">Mindmap Project "Conditions for Effective Learning"</td> <td data-bbox="794 1738 1141 1794">80.0%</td> <td data-bbox="1141 1738 1477 1794">50.0%</td> </tr> <tr> <td data-bbox="448 1794 794 1832">4 quizzes</td> <td data-bbox="794 1794 1141 1832">80.0%</td> <td data-bbox="1141 1794 1477 1832">50.0%</td> </tr> </tbody> </table>			Subject passing criteria	Passing threshold	Percentage of the final grade	Mindmap Project "Conditions for Effective Learning"	80.0%	50.0%	4 quizzes	80.0%	50.0%
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4 quizzes	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											

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.
Practical activities within the subject	Not applicable

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