



## Subject card

Subject name and code	WIND AND PARASEISMIC ENGINEERING, PG_00041320						
Field of study	Civil Engineering						
Date of commencement of studies	February 2025	Academic year of realisation of subject			2025/2026		
Education level	second-cycle studies	Subject group			Optional subject group Subject group related to scientific research in the field of study		
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	Katedra Wytrzymałości Materiałów -> Faculty of Civil and Environmental Engineering						
Name and surname of lecturer (lecturers)	Subject supervisor	dr inż. Bartosz Sobczyk					
	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	15.0	0.0	30
	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	30		5.0		40.0	75
Subject objectives	The students learn basics and selected topics of wind and Earthquake Engineering.						
Learning outcomes	Course outcome	Subject outcome			Method of verification		
	[K7_W03] has knowledge of Continuum Mechanics, knows rules of static analysis, stability and dynamics of complex rod, shell and volume structures, both in linear and basic nonlinear regime	The students learn basics and selected topics of wind and Earthquake Engineering.			[SW1] Assessment of factual knowledge [SW2] Assessment of knowledge contained in presentation		
	[K7_W04] has knowledge on advanced strength of materials, modeling and optimisation of materials and constructions; has knowledge of fundamentals of Finite Element Method and general nonlinear analysis of engineering constructions and systems	The students learn basics and selected topics of wind and Earthquake Engineering.			[SW1] Assessment of factual knowledge [SW2] Assessment of knowledge contained in presentation		
Subject contents	Basics and selected topics of wind and Earthquake Engineering are presented.						
Prerequisites and co-requisites	Structural Mechanics, Dynamics of Structures						
Assessment methods and criteria	Subject passing criteria	Passing threshold			Percentage of the final grade		
	Evaluation of student projects	60.0%			40.0%		
	Presentation of wind or seismic engineering aspects	60.0%			60.0%		
Recommended reading	Basic literature	1. Rucka M., Wilde K.: Dynamika Budowli z przykładami w środowisku Matlab®. Wydawnictwo Politechniki Gdańskiej, Gdańsk 2008. 2. Chmielewski T., Zembaty Z.: Podstawy dynamiki budowli. Arkady, 1998. 3. Flaga A.: Inżynieria wiatrowa. Podstawy i zastosowania, Arkady, 2008.					

	Supplementary literature	1. Chopra A.: Dynamics of structures. Theory and Applications to Earthquake Engineering, Prentice-Hall, 1995.  2. Simiu E., Scanlan R.: Wind Effects on Structures, John Wiley and Sons, 1996.
	eResources addresses	Adresy na platformie eNauczanie:
Example issues/ example questions/ tasks being completed		
Work placement	Not applicable	

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