



Subject card

Subject name and code	, PG_00066729						
Field of study	Civil Engineering						
Date of commencement of studies	February 2024		Academic year of realisation of subject		2024/2025		
Education level	second-cycle studies		Subject group		Optional subject group		
Mode of study	Full-time studies		Mode of delivery		at the university		
Year of study	2		Language of instruction		Polish		
Semester of study	3		ECTS credits		2.0		
Learning profile	general academic profile		Assessment form		assessment		
Conducting unit	Department Of Building Engineering -> Faculty Of Civil And Environmental Engineering -> Wydział Politechniki Gdańskiej						
Name and surname of lecturer (lecturers)	Subject supervisor		dr inż. Marcin Szczepański				
	Teachers						
Lesson types and methods of instruction	Lesson type	Lecture	Tutorial	Laboratory	Project	Seminar	SUM
	Number of study hours	30.0	15.0	0.0	0.0	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		0.0		0.0	45
Subject objectives	The aim of the Modern Timber Construction course is to familiarize students with the idea of modern timber construction from its historical roots to the latest technologies of prefabrication and digital design. The course combines theoretical knowledge with practical experience through participation in the Timber Construction Days conference, industry workshops, numerical modeling and design work. Particular emphasis is placed on the aspects of sustainable development, energy efficiency, digitalization and interdisciplinary cooperation in the investment process.						
Learning outcomes	Course outcome		Subject outcome		Method of verification		
	[K7_W15] has deep and adequate knowlege of civil engineering, within offered specialization and profile		The student has in-depth knowledge of modern wooden construction technologies, including prefabrication, digitalization of construction processes and energy efficiency of buildings.		[SW1] Assessment of factual knowledge [SW3] Assessment of knowledge contained in written work and projects		
	[K7_U15] has advanced skills in civil engineering within offered specialization/profile		The student is able to design and implement a technological and digital analysis of a selected issue in the field of wooden construction using specialized engineering tools (e.g. RFEM).		[SU1] Assessment of task fulfilment [SU2] Assessment of ability to analyse information [SU3] Assessment of ability to use knowledge gained from the subject [SU4] Assessment of ability to use methods and tools		
Subject contents	<div>1. The history of wooden construction and the development of the idea of prefabrication</div> <div>2. Modern technologies used in wooden construction: prefabrication, digitalization, energy efficiency.</div> <div>3. Participation in the Wooden Construction Days conference: industry and scientific lectures, workshops, debates (including digitalization and AI in construction).</div> <div>4. Numerical modeling of wooden structures in RFEM</div> <div>5. Group project based on case studies or digital modeling of structures in engineering software - presentation of results or visit to a prefabrication factory</div>						
Prerequisites and co-requisites							

Assessment methods and criteria	Subject passing criteria	Passing threshold	Percentage of the final grade
	project / raport	60.0%	100.0%
Recommended reading	Basic literature	1. M. Szczepański, A. Ossowski, <i>Analiza kosztów i czasu budowy domu jednorodzinnego w technologii drewna CLT</i> , Materiały Budowlane, 2021. 2. A. Gosselin, P. Blanchet, <i>Prefabricated housing: industrialized timber construction</i> , Springer, 2017. 3. R. Sandak et al., <i>Wood-based construction: an overview of current state and future trends</i> , Sustainable Materials and Technologies, 2020. 4. Materiały z konferencji Dni Budownictwa Drewnianego prelekcje i warsztaty (materiały wewnętrzne PG).	
	Supplementary literature	-	
	eResources addresses	Podstawowe https://discord.gg/b6zVTj3G - DISCORD DEDICATED SERVER Adresy na platformie eNauczanie:	
Example issues/ example questions/ tasks being completed	-		
Work placement	Not applicable		

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