



Subject card

Subject name and code	TIMBER STRUCTURES, PG_00069234						
Field of study	Civil Engineering						
Date of commencement of studies	October 2023		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	4		Language of instruction		Polish		
Semester of study	7		ECTS credits		2.0		
Learning profile	general academic profile		Assessment form		assessment		
Conducting unit	Department of Building Structures and Material Engineering -> Faculty of Civil and Environmental Engineering -> Faculties of Gdańsk University of Technology						
Name and surname of lecturer (lecturers)	Subject supervisor		dr hab. inż. Jerzy Bobiński				
	Teachers						
Lesson types	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		3.0		17.0	50
Subject objectives	Provide students with the knowledge necessary to design simple wooden structures						
Learning outcomes	Course outcome		Subject outcome		Method of verification		
	[K6_U07] Design and build engineering structures in a sustainable manner, with care for the natural environment and a minimum carbon footprint		Student is able to design a wooden roof.		[SU3] Assessment of ability to use knowledge gained from the subject		
	[K6_U03] Design engineering objects and details, processes and engineering systems by applying appropriate standards and methods of design.		Student is able to design a wooden roof.		[SU3] Assessment of ability to use knowledge gained from the subject		
	[K6_U04] Reads and prepares construction documentation (including drawings, graphic documentation in the CAD environment), efficiently uses maps as well as architectural, construction and geodetic drawings.		Student is able to create construction drawings of wooden structures.		[SU3] Assessment of ability to use knowledge gained from the subject		
	[K6_W03] Demonstrate knowledge and understanding of the processes, established standards and design methods in the civil engineering subject area and of their limitations.		Student knows the principles of designing timber elements according to Eurocode 5.		[SW1] Assessment of factual knowledge		
	[K6_K04] Engages in independent lifelong learning and individually follows the development of science and technology in the field of civil engineering.		Student independently acquires additional knowledge needed to complete the project.		[SK2] Assessment of progress of work		

Subject contents	Course content – lecture Wood as a building material. Ecological aspects of using wood. Wood species, production sawn timber, sawn defects, sawn timber assortment, wood sorting and strength classes. Materials wood-based. Protection of wood against fire, biological corrosion and insects. Structural elements z glued wood. Fasteners in wooden structures. Designing connections. Systems and technologies used in steep wooden structures (roofs).		
	Course content – project Static calculations of steep roofs. Dimensioning of timber elements. Designing of nail and screw connections. Preparation of construction drawings.		
Prerequisites and co-requisites	Completion of the General Construction course.		
Assessment methods and criteria	Subject passing criteria	Passing threshold	Percentage of the final grade
	design work	50.0%	50.0%
	colloquium	50.0%	50.0%
Recommended reading	Basic literature	1. Kotwica J.: Konstrukcje drewniane w budownictwie tradycyjnym. Warszawa: Arkady 2004. 2. Neuhaus H.: Budownictwo drewniane. Rzeszów: Polskie Wydawnictwo Techniczne 2004. 3. Nożyński W.: Przykłady obliczeń konstrukcji budowlanych z drewna. Warszawa: Wydawnictwa Szkolne i Pedagogiczne Spółka Akcyjna 1994. 4. Wajdzik Cz.: Więźby dachowe. Wrocław: Wydawnictwo Akademii Rolniczej we Wrocławiu 2000. 5. Michalak H., Pyrak S., Domy jednorodzinne konstruowanie i obliczenia: Arkady 2005.	
	Supplementary literature	1. Praca zbiorowa: Poradnik majstra budowlanego. Warszawa: Arkady 1985. 2. Praca zbiorowa: Poradnik inżyniera i technika budowlanego, t. V. Warszawa: Arkady 1986.	
	eResources addresses		
Example issues/ example questions/ tasks being completed			
Practical activities within the subject	Not applicable		

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