



Subject card

Subject name and code	Building structures and technologies II, PG_00061547						
Field of study	Architecture						
Date of commencement of studies	October 2024		Academic year of realisation of subject		2026/2027		
Education level	first-cycle studies		Subject group		Obligatory subject group in the field of study 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	3		Language of instruction		English		
Semester of study	5		ECTS credits		1.0		
Learning profile	general academic profile		Assessment form		assessment		
Conducting unit	Department of Building Engineering -> Faculty of Civil and Environmental Engineering -> Faculties of Gdańsk University of Technology						
Name and surname of lecturer (lecturers)	Subject supervisor						
	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		1.0		9.0	25
Subject objectives	The aim of the subject is o familiarize students with basic informations related to manufacturing and design of steel elements and their connections.						
Learning outcomes	Course outcome		Subject outcome		Method of verification		
	[K6_W01] knows and understands construction problems, building and engineering issues related to building design; principles, solutions, constructions and building materials used in simple engineering tasks in the field of architectural and urban design		Student is able to solve simple engineering tasks in the field of architectural and urban design. Moreover student knows the basics of building design, building materials and is able to solve construction problems concerning designing of buildings.		[SW2] Assessment of knowledge contained in presentation		
	[K6_U02] is able to design an architectural object or a simple urban complex that meets the aesthetic and technical requirements		is able to develop solutions for individual building structures and elements in terms of technology and construction; is able to prepare architectural and construction documentation at appropriate scales in relation to the conceptual architectural design; is able to select the main load-bearing elements of the structure taking into account technical and aesthetic conditions.		[SU5] Assessment of ability to present the results of task [SU3] Assessment of ability to use knowledge gained from the subject		

Subject contents	Course content – lecture Steel as a building material.		
	Assortment of steel products.		
	Mechanical properties of steel.		
	Steel beams		
	Steel columns.		
	Bolted and welded connections.		
Prerequisites and co-requisites	Structural Design and Mechanics and General Building Technologies		
Assessment methods and criteria	Subject passing criteria	Passing threshold	Percentage of the final grade
	test	60.0%	50.0%
	presentation	60.0%	50.0%
Recommended reading	Basic literature	1. Praca zbiorowa: Budownictwo ogólne. Tom 5, Arkady, Warszawa 2010 2. Rykaluk K.: Konstrukcje stalowe. Dolnośląskie Wydawnictwo Pedagogiczne, Wrocław 2001. 3. Eurocode 3: Design of steel structures - Part 1-1: General rules and rules for buildings 4. Eurocode 3: Design of steel structures - Part 1-8: Design of joints	
	Supplementary literature	1. Łubiński M., Filipowicz A., Żółtowski W.: Konstrukcje metalowe. Część 1. Arkady, Warszawa 2000. 2. Żmuda J.: Podstawy projektowania konstrukcji metalowych. Arkady, Warszawa 1997.	
	eResources addresses		
Example issues/ example questions/ tasks being completed	Combination of loads		
	Local and global loss of stability		
	Type of connections used in steel structures		
Practical activities within the subject	Not applicable		

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