



## Subject card

Subject name and code	Building structures and technologies II, PG_00052645						
Field of study	Architecture						
Date of commencement of studies	October 2021	Academic year of realisation of subject			2023/2024		
Education level	first-cycle studies	Subject group			Obligatory subject group 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						
Name and surname of lecturer (lecturers)	Subject supervisor	prof. dr hab. inż. Jarosław Przewłócki					
	Teachers	dr inż. Tomasz Falborski dr inż. Natalia Lasowicz					
Lesson types and methods of instruction	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 to familiarize students with basic information 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		Student 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	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
	presentation	60.0%	50.0%
	test	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	Adresy na platformie eNauczanie: Building structures and technologies II (BSc 2023/2024) - Moodle ID: 33497 <a href="https://enauczanie.pg.edu.pl/moodle/course/view.php?id=33497">https://enauczanie.pg.edu.pl/moodle/course/view.php?id=33497</a>	
Example issues/ example questions/ tasks being completed	Combination of loads  Local and global loss of stability  Type of connections used in steel structures		
Work placement	Not applicable		

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