



Subject card

Subject name and code	Temporary steel structures, PG_00044206						
Field of study	Civil Engineering						
Date of commencement of studies	October 2021		Academic year of realisation of subject		2023/2024		
Education level	first-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	3		Language of instruction		Polish		
Semester of study	6		ECTS credits		3.0		
Learning profile	general academic profile		Assessment form		assessment		
Conducting unit	Department of Metal Structures -> Faculty of Civil and Environmental Engineering						
Name and surname of lecturer (lecturers)	Subject supervisor		dr inż. Aleksander Perliński				
	Teachers						
Lesson types and methods of instruction	Lesson type	Lecture	Tutorial	Laboratory	Project	Seminar	SUM
	Number of study hours	0.0	15.0	0.0	30.0	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		5.0		25.0	75
Subject objectives	Preparation of the selected parts of the design documentation related to the simple steel canopy structure.						
Learning outcomes	Course outcome		Subject outcome		Method of verification		
	[K6_U06] can design steel, concrete (including reinforced), wood and masonry constructions and its elements		Can design simple steel canopy consisting of lightweight roof cladding, purlins, truss girders, hot-rolled columns, bracings and selected joints		[SU1] Assessment of task fulfilment [SU3] Assessment of ability to use knowledge gained from the subject [SU4] Assessment of ability to use methods and tools		
	[K6_W06] knows the rules of constructing and dimensioning of building elements of: steel, reinforced concrete, wood, masonry.		Knows principles of simple steel members design like beams, truss girders, columns and bracings		[SW3] Assessment of knowledge contained in written work and projects		
Subject contents	Design of a steel canopy with purlins, truss girder and hot-rolled columns - load list, static calculations using computer software, dimensioning of the main structural members and joints, and preparing of the selected drawings.						
Prerequisites and co-requisites							
Assessment methods and criteria	Subject passing criteria		Passing threshold		Percentage of the final grade		
	Written tutorial test		60.0%		60.0%		
	Design of a steel hall		60.0%		40.0%		

Recommended reading	Basic literature	<p>1. Praca zbiorowa pod red. A. Kozłowskiego: Konstrukcje stalowe. Przykłady obliczeń według PN-EN 1993-1. Część pierwsza. Wybrane elementy i połączenia. Oficyna Wydawnicza PRz, Rzeszów 2009.</p> <p>2. Praca zbiorowa pod red. A. Kozłowskiego: Konstrukcje stalowe. Przykłady obliczeń według PN-EN 1993-1. Część druga. Stropy i pomosty. Oficyna Wydawnicza PRz, Rzeszów 2011.</p> <p>3. Praca zbiorowa pod red. A. Kozłowskiego: <i>Konstrukcje stalowe. Przykłady obliczeń według PN-EN 1993-1. Część trzecia. Hale i wiaty</i>, Oficyna Wydawnicza PRz, Rzeszów 2015.</p> <p>4. Goczek J., Supel Ł., Gajdzicki M.: Przykłady obliczeń konstrukcji stalowych, Wydawnictwo PŁ, Łódź 2010.</p> <p>5. Bródka J., Broniewicz M.: Projektowanie konstrukcji stalowych według Eurokodów. Materiały szkoleniowe. Polskie Wydawnictwo Techniczne, Rzeszów 2010.</p> <p>6. Rykaluk K.: Konstrukcje stalowe. Podstawy i elementy. DWE, Wrocław 2001.</p> <p>7. PN-EN 1993-1-1 Eurocode 3: Design of steel structures. Part 1-1: General rules and the rules for buildings</p> <p>8. PN-EN 1993-1-1 Eurocode 3: Design of steel structures. Part 1-8: Design of joints</p>
	Supplementary literature	<p>1. Bogucki W., Żybertowicz M.: Tablice do projektowania konstrukcji metalowych. Arkady, Warszawa 2007.</p> <p>2. Bogucki W.: Budownictwo stalowe. Arkady, Warszawa 1976.</p> <p>3. W. Knabe: Przykłady obliczeń połączeń śrubowych i spawanych. Wydawnictwo Politechniki Gdańskiej. Gdańsk 2000.</p>
	eResources addresses	Adresy na platformie eNauczanie:
Example issues/ example questions/ tasks being completed	<p>Examples of the tutorial test questions:</p> <p>1. Check the ULS and SLS of the steel purlin.</p> <p>2. Check the resistance of the steel truss top chord.</p>	
Work placement	Not applicable	