GDAŃSK UNIVERSITY OF TECHNOLOGY

Subject card

Subject name and code	ADVANCED CAD SYSTEMS, PG_00041295		
Field of study	Civil Engineering		
Date of commencement of studies	February 2025	Academic year of realisation of subject	2025/2026
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	1	Language of instruction	Polish
Semester of study	2	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	mgr inż. Paweł Pieczka	
	Teachers		

Lesson types and methods of instruction

Lesson type	Lecture	Tutorial	Laboratory	Project	Seminar	SUM
Number of study hours	0.0	0.0	30.0	0.0	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	5.0	40.0	75

Subject objectives

Student knows the possibilities offered by the software dedicated to 3D-modelling, detailling and dimensioning of the steel structures.

Student learns how to use basic tools and functions of the selected software dedicated to 3D-modelling, detailling and dimensioning of the steel structures.

Student learns the principles of the preparation of the steel structures workshop documentation.

Learning outcomes

Course outcome	Subject outcome	Method of verification
[K7_U15] has advanced skills in civil engineering within offered specialization/profile	Student is able to use software dedicated to 3D-modelling, detailling and dimensioning of the steel structures.	[SU1] Assessment of task fulfilment
[K7_W02] knows principles of analysis, design and dimensioning of complex constructions and its elements	Student knows the principles of the use of the software dedicated to 3D-modelling, detailling and dimensioning of the steel structures.	[SW1] Assessment of factual knowledge
[K7_U02] can design and dimension complex steel, concrete (including reinforced), wood and masonry construtions and its details	Student is able to design and dimension selected connections of the steel structures.	[SU1] Assessment of task fulfilment

Subject contents

Demonstration of the selected software dedicated to 3D-modelling, detailling and dimensioning of the steel structures.
Modelling of the beam and plate elements. Modelling of the 2D and 3D structures.
Modelling of the connections: bolts and welds. Collision checks.
Generating workshop drawings and deliverables.

Prerequisites and co-requisites

Assessment methods and criteria

Subject passing criteria	Passing threshold	Percentage of the final grade
Test	60.0%	50.0%
Project	60.0%	50.0%

Recommended reading

Basic literature	Autodesk Advance Steel - User's Guide.

	Supplementary literature	-
	eResources addresses	Adresy na platformie eNauczanie:
Example issues/ example questions/ tasks being completed	Creating 3-D model of the steel structures. Generating workshop drawings and deliverables.	
Work placement	Not applicable	

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