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 2023	Academic year of realisation of subject	2023/2024
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	dr inż. Natalia Korcz-Konkol	
	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	