GDAŃSK UNIVERSITY OF TECHNOLOGY

Subject card

Subject name and code	Computer Aided Design , PG_00044793		
Field of study	Geodesy and Cartography		
Date of commencement of studies	October 2021	Academic year of realisation of subject	2021/2022
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	1	Language of instruction	Polish
Semester of study	1	ECTS credits	7.0
Learning profile	general academic profile	Assessment form	assessment
Conducting unit	Department of Geodesy -> Faculty of Civil and Environmental Engineering		
Name and surname of lecturer (lecturers)	Subject supervisor	dr inż. arch. Dominika Wróblewska	
	Teachers		

Lesson types and methods of instruction

Lesson type	Lecture	Tutorial	Laboratory	Project	Seminar	SUM
Number of study hours	30.0	15.0	15.0	30.0	0.0	90

E-learning hours included: 0.0

Adresy na platformie eNauczanie:

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	90	12.0	73.0	175

Subject objectives

The development of spatial imagination. Gaining the ability of:
appling basic projection methods in engineering practice, taking into account the specificities of Geodetic Surveying and Mapping.
reading the information contained in the building technical documentation
ability of performing technical and geodetic drawings both manually and using CAD software.

Learning outcomes

Course outcome	Subject outcome	Method of verification
[K6_U02] can make basic geodetic drawings and read an architectural technical drawing	can make basic handmade and comuter geodetic drawings and read an architectural drawing	[SU1] Assessment of task fulfilment
[K6_W04] has basic knowledge and understands the concepts of projection with elevations, Monge's and middle (perspective), has basic knowledge and understands the concepts of engineering graphics needed to work with CAD (Computer Aided Design) software in accordance with the standards and principles of geodesy, construction and IT including computer network technologies, databases and programming as well as surveying software	has basic knowledge and understands the concepts in the field of marker, Monge and middle (perspective), has basic knowledge and understands the concepts of engineering graphics and relation to the measurements	[SW1] Assessment of factual knowledge

Subject contents

Technical drawings - the basis
Cartografical symbols used on maps
Geodetic sketches
Basic development of cartography: basic map,
Mapping the topography.
Building technical documentation, architectural sketches for building inventory.
Fundamentals of computer-aided design. CAD (Computer Aided Design).
Monge projection - the basic elements and their relative positions, the transformation of the position.
Polyhedra and their cross sections.
Perspective projection -line general principles of construction of plane figures, the basic structures.
Topographical projection - the basic elements, relative position, basic designs, engineering applications

<table>
<tr><td>Prerequisites and co-requisites</td><td colspan="2">no requirements</td></tr>
<tr><td>Assessment methods and criteria</td><td colspan="2"><table>
<tr><th>Subject passing criteria</th><th>Passing threshold</th><th>Percentage of the final grade</th></tr>
<tr><td>test of knowledge</td><td>60.0%</td><td>50.0%</td></tr>
<tr><td>realization of practical exercises</td><td>60.0%</td><td>50.0%</td></tr>
</table></td></tr>
<tr><td rowspan="3">Recommended reading</td><td>Basic literature</td><td>Descriptive Geometry

• Kotarska-Lewandowska B., Chróścielewski J.(red. Praca zbiorowa)
• Wróblewska D., Rzut Cechowany - odwzorowania inżynierskie http://www.geomatyka.eu/publikacje/isbn9788393460991/isbn9788393460991.pdf

Graphics

• Rozporządzenie Ministra Administracji i Cyfryzacji z dnia 12 lutego 2013 r. w sprawie bazy danych geodezyjnej ewidencji sieci uzbrojenia terenu, bazy danych obiektów topograficznych oraz mapy zasadniczej. (Dz.U. 2013 nr 0 poz. 383)
• Instrukcja Geodezyjna Mapa zasadnicza K-1 wydanie III
• Jagielski Andrzej Rysunki Geodezyjne z elementami topografii i kartografii, Wydawnictwo GEODPIS, 2008.</td></tr>
<tr><td>Supplementary literature</td><td>• Bieliński A.: Geometria wykreślna, Oficyna Wydawnicza Politechniki Warszawskiej, 2005
• Mierzejewski W.: Geometria wykreślna, Oficyna Wydawnicza Politechniki Warszawskiej, 2006
• Maciaszek, R. Gawałkiewicz J. Podstawy grafiki inżynierskiej dla studentów geodezji i inżynierii środowiska, 2007.
• Technical norms devoted to technical drawing
• Software instructions</td></tr>
<tr><td>eResources addresses</td><td></td></tr>
<tr><td>Example issues/ example questions/ tasks being completed</td><td colspan="2">Perform interpolation contour based on x, y, z values of measured points.</td></tr>
<tr><td>Work placement</td><td colspan="2">Not applicable</td></tr>
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