GDAŃSK UNIVERSITY OF TECHNOLOGY

Subject card

Subject name and code	Descriptive geometry, PG_00061783		
Field of study	Geodesy and Cartography		
Date of commencement of studies	October 2024	Academic year of realisation of subject	2024/2025
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	2.0
Learning profile	general academic profile	Assessment form	assessment
Conducting unit	Katedra Wytrzymałości Materiałów -> Faculty of Civil and Environmental Engineering		
Name and surname of lecturer (lecturers)	Subject supervisor	dr inż. Bożena Kotarska-Lewandowska	
	Teachers	dr inż. Angela Andrzejewska-Sroka dr inż. Karol Daszkiewicz dr inż. Bożena Kotarska-Lewandowska	

Lesson types and methods of instruction

Lesson type	Lecture	Tutorial	Laboratory	Project	Seminar	SUM
Number of study hours	15.0	10.0	0.0	5.0	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	25.0	60

Subject objectives

The aim of the course is to equip the student in:
- knowledge of orthogonal, topographic and perspective projections;
- skills of solving spatial problems in engineering practice.

Learning outcomes

Course outcome	Subject outcome	Method of verification
[K6_U02] can make basic geodetic drawings and read an architectural technical drawing	The student can make basic geodetic drawings and read technical architectural drawings.	[SU1] Assessment of task fulfilment
[K6_W04] has 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	Student potrafi zapisać obiekty trójwymiarowe w poznanych typach rzutowania oraz potrafi rozwiązać problemy przestrzenne w praktyce inżynierskiej.	[SW3] Assessment of knowledge contained in written work and projects

Subject contents

Orthographic projection, planes of reference. Invariants of parallel projections. Representation of geometric elements in the Monge projection, transformation, auxiliary views. Belonging and parallelism of points, lines and planes. Determination of common elements: piercing points, edges between planes. Operating on polyhedrons: piercing points, intersection lines. Topographic projection. Representation of points, lines and planes. Basic constructions: belonging and parallelism of geometric elements, intersection of elements. Edge and normal view of a plane. Topographic surfaces. Determination of embankment and cut planes along roads and squares. Basic rules of perspective projection, one-point perspective.

Prerequisites and co-requisites

No requirements.

<table>
<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>drawing exercises</td><td>60.0%</td><td>50.0%</td></tr>
<tr><td>test</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>Bieliński A.: Geometria wykreślna, Oficyna Wydawnicza Politechniki Warszawskiej, 2005

Grochowski B.: Elementy geometrii wykreślnej, PWN Warszawa, 2002

Jankowski W.: Geometria Wykreślna, Wydawnictwo Politechniki Poznańskiej, 1999

Otto F., Otto E.: Podręcznik geometrii wykreślnej, PWN Warszawa, 1998 (i inne wydania)</td></tr>
<tr><td>Supplementary literature</td><td>Bieliński A.: Ćwiczenia z geometrii wykreślnej, Oficyna Wydawnicza Politechniki Warszawskiej, 2002

Błach A., Inżynierska geometria wykreślna. Podstawy i zastosowania. Wydawnictwo Politechniki Śląskiej, Gliwice 2006</td></tr>
<tr><td>eResources addresses</td><td>Adresy na platformie eNauczanie:
Geometria Wykreślna, 1 sem. GiK (2024/2025) - Moodle ID: 32379
https://enauczanie.pg.edu.pl/moodle/course/view.php?id=32379</td></tr>
<tr><td>Example issues/ example questions/ tasks being completed</td><td colspan="2">Determination of embankment and cut planes along roads.</td></tr>
<tr><td>Work placement</td><td colspan="2">Not applicable</td></tr>
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