GDAŃSK UNIVERSITY OF TECHNOLOGY

Subject card

Subject name and code	URBAN AND INDUSTRIAL GEODESY, PG_00044847		
Field of study	Geodesy and Cartography		
Date of commencement of studies	October 2022	Academic year of realisation of subject	2024/2025
Education level	first-cycle studies	Subject group	Optional subject group
Mode of study	Full-time studies	Mode of delivery	at the university
Year of study	3	Language of instruction	Polish
Semester of study	5	ECTS credits	8.0
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		
	Teachers		

Lesson types and methods of instruction

Lesson type	Lecture	Tutorial	Laboratory	Project	Seminar	SUM
Number of study hours	45.0	15.0	30.0	0.0	0.0	90

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	90	10.0	100.0	200

Subject objectives

The aim is to familiarize with the geodetic monitoring basic structural elements of engineering structures.

Learning outcomes

Course outcome	Subject outcome	Method of verification
[K6_W07] has a well-established knowledge and understands concepts in the field of engineering geodesy including the use of calculations and measurements methods carried out with the use of geodetic instruments and photogrammetric and remote sensing technologies related to geodetic support for investment, surveying and inventory measurements and photogrammetry with remote sensing		
[K6_W10] has elementary knowledge and understands the concepts of architecture and urban planning, construction, environmental engineering and transport necessary to carry out studies related to planning and investment service		
[K6_U06] can solve geodetic tasks and select measurement methods for typical engineering tasks including the curvature of the Earth and the impact of gravity		

Subject contents

Geodetic works at construction of foundations, geodetic service of building repeatable storeys, moving structural pivots, placing structural elements of the building. Test measurements of the geometry of halls and equipments. Measurements of plains of building elements Measurements during the assembly and disassembly of outsize elements. Measurements of transfers and deformations of workses, of cooling towers, of chimneys, of pipelines. Appointing the volume of earth mass, drawing up profiles and diameters of the area. Geodetic works in the machine construction.

Prerequisites and co-requisites

mathematics

Assessment methods and criteria	Subject passing criteria	Passing threshold	Percentage of the final grade
	theoretical test - test in the range of exercises and lectures	60.0%	30.0%
	the report of the exercises	100.0%	10.0%
	practical exam - solving	60.0%	60.0%
Recommended reading	Basic literature	1. Gocał J. 2009. Geodezja inżynieryjno-przemysłowa cz. 1-3. Wydawnictwa AGH 2. Geodezja inżynieryjna. T. 1-3, 1990-1994 PPW-K Warszawa.	
	Supplementary literature	No requirements	
	eResources addresses	Adresy na platformie eNauczanie:	
Example issues/ example questions/ tasks being completed	1. Calculation of the measurement matrix 2. Determination of the shape of the walls of the building 3. Adjustment of the levelling network 4. Determination of the displacements of foundation slab		
Work placement	Not applicable		