GDAŃSK UNIVERSITY OF TECHNOLOGY

Subject card

Subject name and code	Engineering geodesy II, PG_00044837		
Field of study	Geodesy and Cartography		
Date of commencement of studies	October 2020	Academic year of realisation of subject	2022/2023
Education level	first-cycle studies	Subject group	Obligatory subject group in the field of study Subject group related to scientific research in the field of study
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	4.0
Learning profile	general academic profile	Assessment form	exam
Conducting unit	Department of Geodesy -> Faculty of Civil and Environmental Engineering		
Name and surname of lecturer (lecturers)	Subject supervisor	mgr inż. Mariusz Chmielecki	
	Teachers	mgr inż. Mariusz Chmielecki	

Lesson types and methods of instruction

Lesson type	Lecture	Tutorial	Laboratory	Project	Seminar	SUM
Number of study hours	15.0	15.0	15.0	0.0	0.0	45
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	45	6.0	49.0	100

Subject objectives

Student has the knowledge hot to make the standard geodetic measurements.

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		[SW1] Assessment of factual knowledge
[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		[SU5] Assessment of ability to present the results of task

Subject contents

Attestation (certification), comparison (calibration) and periodical examination of the electromagnetic distance measuring instruments. Topographic survey conducting with the use of the polar survey and electronic tacheometers. Standards of taking the geodetic measurements. Eccentric measurements. Coordinates transfer. The rules of establishment of the detailed geodetic network. Coordinates transformation. The height measurements with the use of trigonometric leveling method.

Prerequisites and co-requisites

Knowledge of the following subjects: :engineering drawing, computer science, mathematics I, geodesy I.

Assessment methods and criteria	Subject passing criteria	Passing threshold	Percentage of the final grade
	The final examination. Only students that obtained the course (laboratories and workshops) credits can take the examination. There are no part course credit.	50.0%	60.0%
	Workshops. To obtain the course credit of all the calculative tasks. To pass the end-term test (colloquium).	100.0%	20.0%
	Laboratories. Map compilation on the basis of the topographic survey conducted.	100.0%	20.0%
Recommended reading	Basic literature	1. Jagielski A., Geodezja II. Kraków 2003. 2. Lazzarini T., Hermanowski A., Gaździcki J., Dobrzycka M., Laudyn I., Geodezja. Geodezyjna osnowa szczegółowa. PPWK Warszawa, Wrocław 1990. 3. Osada E., Geodezja. Oficyna Wydawnicza politechniki Wrocławskiej. Wrocław 2002. 4. Skórczyński A., Niwelacja trygonometryczna w pomiarach szczegółowych. Wydawnictwa Politechniki Warszawskiej. Warszawa 1993. 5. Skórczyński A., Lokalna triangulacja i trilateracja. Wydawnictwa Politechniki Warszawskiej. Warszawa 1993.	
	Supplementary literature	1. Czarnecki K., Geodezja współczesna w zarysie. Wydawnictwo Wiedza i Życie 1994. 2. Kosiński W., Geodezja. Wydawnictwo SGGW, Warszawa 2005. 3. Kurałowicz Z., Geodezja. Podstawowe obliczenia oraz wybrane ćwiczenia. Pol. Gd., 2009.	
	eResources addresses	Adresy na platformie eNauczanie:	
Example issues/ example questions/ tasks being completed	1. Describe the trigonometric levelling on the short distances. 2. The basic rule of the electronic distance measurements. 3. Describe the technology of the coordinates transfer. 4. Describe the basic work phases during the topographic survey conducting.		
Work placement	Not applicable		