GDAŃSK UNIVERSITY OF TECHNOLOGY

Subject card

Subject name and code	Geodesy , PG_00047989		
Field of study	Environmental Engineering		
Date of commencement of studies	October 2021	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	Part-time studies	Mode of delivery	at the university
Year of study	2	Language of instruction	Polish
Semester of study	3	ECTS credits	5.0
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. Karol Daliga	
	Teachers	dr inż. Karol Daliga	

Lesson types and methods of instruction	Lesson type	Lecture	Tutorial	Laboratory	Project	Seminar	SUM
	Number of study hours	15.0	5.0	15.0	0.0	0.0	35
	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	35	6.0	85.0	126

Subject objectives	Knowledge and acquisition of knowledge and skills in the field of basic geodetic issues in application for the needs of environmental engineering.

Learning outcomes

Course outcome	Subject outcome	Method of verification
[K6_K01] can think and act in a creative and enterprising way; can set priorities for the implementation of an individual or group task; understands the need for continuous training and professional responsibility for their activities and team	Carries out geodetic tasks independently or in a team, using the current knowledge and experience.	[SK1] Assessment of group work skills [SK2] Assessment of progress of work
[K6_W17] has basic knowledge of geodesy in the range of applied measurement equipment and techniques, geodetic information systems and documentation necessary in the preparation process, investment implementation	Sudent knows the basic geodetic tasks, units and measures used in geodesy. The student has a basic knowledge of geodetic networks, geodetic instruments and cartographic materials necessary during the implementation of the investment.	[SW1] Assessment of factual knowledge
[K6_U05] can apply in engineering practice the basic geodetic instruments and instruments, make measurement sketches and read information from the map and surveying documents	Gaining the skills to perform basic geodetic and control calculations. Acquiring the ability to use basic geodetic instruments, acquiring the ability to obtain information from documentation related to the execution of geodetic works and maps for design purposes.	[SU1] Assessment of task fulfilment [SU2] Assessment of ability to analyse information [SU4] Assessment of ability to use methods and tools
[K6_U02] can work individually and in a team; knows how to estimate the time needed to complete the task ordered; is able to develop and implement a work schedule that ensures deadlines	The student is able to plan and implement in a limited range measurements / prepare appropriate documentation according to the prepared schedule.	[SU1] Assessment of task fulfilment [SU4] Assessment of ability to use methods and tools
[K6_U03] can prepare documentation regarding the implementation of an engineering task/project and prepare a text or presentation including a discussion of the results of the implementation	Student is able to plot a field sketch, keep a measurement diary. During the presentation of measurement results or calculations, he uses the rules used in geodesy.	[SU1] Assessment of task fulfilment [SU4] Assessment of ability to use methods and tools

Subject contents

Geodesy and cartography - its position as a discipline in theory and practice of engineering. Surveying service in Poland - Centres of Geodesy and Cartography Documentation and Companies of Reconciliation Documentation Design. The role and tasks of surveying in the process of realization investments. Survey instructions and technical guidance. Traditional and modern surveying instruments and new technologies (levels, theodolites, electronic station, GPS, scanners). Classification methods for leveling. The measurement of directions and angles calculation. Vertical measurements and situational. Direct and indirect measurements of length.

Prerequisites and co-requisites

No requirements

Assessment methods and criteria

Subject passing criteria	Passing threshold	Percentage of the final grade
Test from lecture	60.0%	55.0%
Raports from laboratory and instruments operating	50.0%	10.0%
Test from tutorial	60.0%	35.0%

Recommended reading

Basic literature	1. Kurałowicz Z.: Geodezja - od taśmy mierniczej i krokiewki do GPS. P. G. Gdańsk 2020. 2. Kurałowicz Z.: Geodezja - podstawowe obliczenia oraz wybrane ćwiczenia. P. G. Gdańsk 2014. 3. Przewłocki S. Geodezja dla Inżynierii Środowiska. PWN. 1997
Supplementary literature	3. Żurowski A.: Ćwiczenia z geodezji. Praca zbiorowa. P.G. Gdańsk 1999
eResources addresses	Adresy na platformie eNauczanie: Geodezja dla IŚ, 3 sem. - 2022/2023 - Moodle ID: 23368 https://enauczanie.pg.edu.pl/moodle/course/view.php?id=23368

Example issues/ example questions/ tasks being completed

Geodetic calculations. Geodetic documents. Geodetic equipment and application. Measurement methods.

Work placement

Field exercises