



Subject card

Subject name and code	Geodesy, PG_00042796						
Field of study	Environmental Engineering						
Date of commencement of studies	October 2020	Academic year of realisation of subject			2020/2021		
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	1	Language of instruction			Polish		
Semester of study	1	ECTS credits			2.0		
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 hab. inż. Zygmunt Kurałowicz					
	Teachers	dr hab. inż. Zygmunt Kurałowicz dr inż. Karol Daliga dr inż. Tadeusz Widerski					
Lesson types and methods of instruction	Lesson type	Lecture	Tutorial	Laboratory	Project	Seminar	SUM
	Number of study hours	15.0	15.0	0.0	0.0	0.0	30
	E-learning hours included: 0.0 Address on the e-learning platform: https://enauczanie.pg.edu.pl/moodle/index.php?id=8174 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	30	5.0	20.0	55		
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_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.	[SU5] Assessment of ability to present the results of task [SU2] Assessment of ability to analyse information
	[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.	[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.	[SU4] Assessment of ability to use methods and tools [SU1] Assessment of task fulfilment
	[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	Acquainting with basic geodetic tasks, units of measurement used in surveying. The student has a basic knowledge of geodetic control networks, geodetic instruments, cartographic materials necessary during the implementation of the investment.	[SW3] Assessment of knowledge contained in written work and projects
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 tutorial	60.0%	30.0%
	Raports from laboratory and instruments operating	50.0%	20.0%
	Test from lecture	60.0%	50.0%
Recommended reading	Basic literature	1. Kurałowicz Z.: Geodezja - od taśmy mierniczej i krokiewki do GPS. P. G. Gdańsk 2021. 2. Kurałowicz Z.: Geodezja - podstawowe obliczenia oraz wybrane ćwiczenia. P. G. Gdańsk 2014.	
	Supplementary literature	3. Żurowski A.: Ćwiczenia z geodezji. Praca zbiorowa. P.G. Gdańsk 1999	
	eResources addresses		
Example issues/ example questions/ tasks being completed	Geodetic calculations. Geodetic documents. Geodetic equipment and application. Measurement methods.		
Work placement	Field exercises		