



## Subject card

Subject name and code	, PG_00062627						
Field of study	Civil Engineering						
Date of commencement of studies	October 2022	Academic year of realisation of subject			2023/2024		
Education level	first-cycle studies	Subject group					
Mode of study	Part-time studies	Mode of delivery			at the university		
Year of study	2	Language of instruction			Polish		
Semester of study	4	ECTS credits			4.0		
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	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	10.0	15.0	10.0	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	0.0	0.0	35		
Subject objectives	1.A Level, construction and leveling,  2. Readings from staffs, checking the horizontal axis of the line of sight,  3. Measurement of ordinates, staking out ordinates,  4. Leveling sequences, execution and calculation,  5. Electronic total stations, construction, preparation for work,  6. The use of total stations in the practice of a civil engineer.						
Learning outcomes	Course outcome	Subject outcome			Method of verification		
	[K6_U04] Reads and prepares construction documentation (including drawings, graphic documentation in the CAD environment), efficiently uses maps as well as architectural, construction and geodetic drawings.	Student is able to create and use construction documentation - paper and electronic.			[SU2] Assessment of ability to analyse information		
	[K6_W04] Knows the rules of descriptive geometry and technical drawing for preparing and reading architectural, construction and geodetic drawings; also with the use of CAD	Know the principles of geodetic drawings, also using CAD.			[SW3] Assessment of knowledge contained in written work and projects		

Subject contents	<p>1. Level, construction and leveling,</p> <p>2. Readings from staffs, checking the horizontal axis of the line of sight,</p> <p>3. Measurement of ordinates, staking out ordinates,</p> <p>4. Leveling sequences, execution and calculation,</p> <p>5. Electronic total stations, construction, preparation for work,</p> <p>6. The use of total stations in the practice of a civil engineer.</p>		
Prerequisites and co-requisites			
Assessment methods and criteria	Subject passing criteria	Passing threshold	Percentage of the final grade
Recommended reading	exam, evaluation of reports.	51.0%	100.0%
	Basic literature	<p>Jan Gocał, "Geodezja inżynieryjno-przemysłowa". Kraków 2009.</p> <p>Lazzarini T. i inni: Geodezyjne pomiary przemieszczeń budowli i ich otoczenia, Warszawa 1977</p> <p>Praca zbiorowa, "Poradnik Kierownika Budowy", Arkady W-wa, 1989.</p>	
	Supplementary literature	Bryś H., Przewłocki S. "Geodezyjne metody pomiarów przemieszczeń budowli" - PWN Warszawa	
	eResources addresses	Adresy na platformie eNauczenie:	
Example issues/ example questions/ tasks being completed	<p>Construction of the level - laboratory</p> <p>Leveling the level - laboratory</p> <p>Calculations in leveling - lectures, laboratory</p> <p>Electronic total station - construction, principle of operation. - laboratory,</p> <p>Structure of the gsi file - lectures, laboratory,</p> <p>Application programs of total stations - lectures, laboratory.</p>		
Work placement	Not applicable		