GDAŃSK UNIVERSITY OF TECHNOLOGY

Subject card

Subject name and code	Group Project: Environmental and Geodetic Practice, PG_00058773						
Field of study	Environmental Engineering						
Date of commencement of studies	October 2024		Academic year of realisation of subject	2024/2025			
Education level	first-cycle studies		Subject group	Obligatory subject group 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	2		ECTS credits	1.0			
Learning profile	general academic profile		Assessment form	assessment			
Conducting unit	Department of Environmental Engineering Technology -> Faculty of Civil and Environmental Engineering						
Name and surname of lecturer (lecturers)	Subject supervisor		dr inż. Alina Wargin				
	Teachers						
Lesson types and methods of instruction	Lesson type	Lecture	Tutorial	Laboratory	Project	Seminar	SUM
	Number of study hours	2.0	0.0	0.0	13.0	0.0	15
	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	15		3.0	8.0	26	
Subject objectives	The aim of the internship is to enable students to use the acquired knowledge in practice through their participation in geodetic measurements, and performing an analysis of surface waters and, based on them, determining the quality of surface waters.. Additionally, the classes are aimed at using the results obtained during the measurements to prepare a design study.						

Learning outcomes

Course outcome	Subject outcome	Method of verification
[K6_W16] 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	Planning, performance and result analysis of the slope of the water table on the specified river section	[SW3] Assessment of knowledge contained in written work and projects
[K6_W15] knows the rules of descriptive geometry and technical drawing regarding the recording and reading of architectural drawings, construction and surveying drawings, as well as their preparation with the use of CAD	Completing the technical documentation based on the conducted geodetic survey according to the rules of technical drawings	[SW3] Assessment of knowledge contained in written work and projects
[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	Performing a leveling measurement with the use of self-leveling levels. Preparation of leveling sketches and measurement logs	[SU1] Assessment of task fulfilment [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	Planning and carrying out measurements in the measurement group. Assigning tasks and responsibilities for each person in the team	[SU1] Assessment of task fulfilment [SU3] Assessment of ability to use knowledge gained from the subject
[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	Preparation of measurement documentation, development of measurement results. Execution of cross-sections and longitudinal sections of the measured section of the Jelitkowski Stream	[SU1] Assessment of task fulfilment

Subject contents

Altitude measurement, assumption of the (altitude) measurement network, measurement of the water table drop in the Jelitkowski Stream, execution of the leveling line with connection to the national network. preparation of documentation on the basis of the performed measurement, execution of cross-sections and longitudinal sections of the measured object, determination of the value of the bottom slope and the water table.In addition, during geodetic measurements, students will collect water samples, which they will transport to the laboratory and perform chemical analysis. As part of chemical analyses, the following determinations will be carried out: Alkalinity, acidity, Hardness, Chlorides, Fe (by rhodonate method), Color, Conductivity. On the basis of the obtained results, a report should be prepared in which the quality of waters and conclusions will be drawn up, taking into account the results of both the geodetic and environmental parts.

Prerequisites and co-requisites

The environmental part of the practice can be carried out only after obtaining a positive grade in the subject of Fundamentals of Chemistry.

Assessment methods and criteria

Subject passing criteria	Passing threshold	Percentage of the final grade
Report	60.0%	30.0%
Conversation	60.0%	70.0%

Recommended reading

Basic literature

- Praca zbiorowa. Ćwiczenia z geodezji pod redakcją Adama Żurowskiego. Gdańsk, Politechnika Gdańska.
- Przewłocki, S., Żurowski, A. (2006). Przewodnik do ćwiczeń z geodezji inżynieryjnej. Kutno, Wyższa Szkoła Gospodarki Krajowej.
- Skrypt: Podstawy Chemii, J. Prejzner, 1993

Supplementary literature

- Kurałowicz Z., (2009) Geodezja Podstawowe obliczenia Geodezyjne, Gdańsk, Politechnika Gdańska
- J. Prejzner Laboratorium Chemii Ogólnej i Sanitarnej

eResources addresses

Adresy na platformie eNauczanie:

Example issues/ example questions/ tasks being completed	Development of longitudinal sections of the river bed Development of river bed cross-sections Overview of the method of measuring the leveling of the river bed Overview of the method of calculating measurement data obtained during the course Fundamentals of quantitative analysis (Alkalinity, Acidity, Hardness, Chloride, Fe (Rhodonate method), Color, Conductivity)
Work placement	Not applicable