



## COURSE DESCRIPTION CARD - SYLLABUS

Course name

Geodetic practices

### Course

Field of study

Year/Semester

2/3

Area of study (specialization)

Profile of study

general academic

Level of study

Course offered in

First-cycle studies

Form of study

Requirements

part-time

compulsory

### Number of hours

Lecture

Laboratory classes

Other (e.g. online)

30

Tutorials

Projects/seminars

### Number of credit points

2

### Lecturers

Responsible for the course/lecturer:

Responsible for the course/lecturer:

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### Prerequisites

Knowledge of analytic geometry, trigonometry and knowledge of the basic methods in the field of mathematical analysis. The knowledge gained in the classroom with surveying conducted in the semester preceding the practice of surveying. Ability to solve basic tasks in mathematics of geometry and trigonometry. Skills gained in the classroom with surveying conducted in the semester preceding the practice of surveying. Diligence and regularity in acquiring knowledge and skills.

### Course objective

Fieldwork with geodetic surveying practices are known to develop in students the skills acquired during laboratory classes. This is done by consulting and implementation of practical actions clearly formulating surveying tasks. Linking the theme of fieldwork tasks include training in mastering the techniques of



measurement, which is measured repeatedly length, angles, etc. determines the height differences. Entire job including the development is to develop the ability to work in a team and perform well let alone some of the tasks encountered in engineering practice.

### Course-related learning outcomes

#### Knowledge

1. The student knows how to properly interpret the task of surveying, choose the equipment and perform them with the required accuracy.

#### Skills

1. Unable to correctly measure angles, distances and height differences, calculate the most probable value and assess the accuracy of the measurements.

2. Able to perform basic calculations directly surveying and using computer programs.

3. It can update the map essential directly and using CAD software.

#### Social competences

1. Able to work in a team on a designated task.

2. Students deepen their knowledge in the field of geodesy and verifies it in legal terms.

### Methods for verifying learning outcomes and assessment criteria

Learning outcomes presented above are verified as follows:

Continuous assessment of student involvement and contribution to the work done by measuring assembly. Control and checking the daily progress of fieldwork and chamber measuring units.

Evaluation of the implementation of single practical tasks. Final evaluation of the implementation of the sampling surveying. Way of checking individual skills and score sets a leading of group practice.

Persons conducting exercises - employees of the Geodesy Laboratory: dr hab. inż. Ireneusz Wyczałek, dr inż. Artur Plichta, mgr inż. Anna Małek, mgr inż. Joanna Papis, mgr inż. Michał Moczko.

### Programme content

Implementation of the selected tasks: Task 1: Development of a situation and altitude maps in scale 1: 1000 or 1: 500. Task 2: Surveying the development of building design and building lay on the ground. Task 3: Testing the verticality of high object. Task 4: Study of the vertical shape of the road bridge. Task 5: Paving the axis of the road route. Task 6: Development of longitudinal profile path with cross sections. Task 7: Determination of longitudinal decline in the water table and the average water velocity. Task 8: Develop cross-section of the river valley.

### Teaching methods

Observation, field measurement. Project method.

### Bibliography



Basic

1. Przewodnik do ćwiczeń terenowych z geodezji - praca zbiorowa, Wydawnictwo Politechniki Poznańskiej 2008

Additional

1. Geodezja - M. Wójcik, I. Wyczałek, Wydawnictwo Politechniki Poznańskiej 1997. Geodezja dla kierunków niegeodezyjnych - Stefan Przewłocki PWN, Warszawa 2002 3. Geodezja. Podręcznik dla studiów inżyniersko-budowlanych - M. Odlanicki-Poczobutt PPWK, Warszawa 1989

**Breakdown of average student's workload**

	Hours	ECTS
Total workload	55	2,0
Classes requiring direct contact with the teacher	30	1,0
Student's own work. Preparing to perform the task of surveying. Performing surveying tasks. Participation in consultations. Preparing to pass the surveying field exercises. <sup>1</sup>	25	1,0

<sup>1</sup> delete or add other activities as appropriate