COURSE DESCRIPTION CARD - SYLLABUS

Course name

Geotechnical practices

Course

Field of study

construction

Year/Semester

2/4

Area of study (specialization)

-

Profile of study

general academic

Level of study

First-cycle studies

Course offered in

polish

Form of study

full-time

Requirements

compulsory

Number of hours

Lecture

Laboratory classes

Other (e.g. online)

40

Tutorials

Projects/seminars

Number of credit points

2

Lecturers

Responsible for the course/lecturer:

dr inż. Tomasz Jeż

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Wydział Inżynierii Lądowej i Transportu

ul. Piotrowo 5 (budynek A2) pokój 235D

Responsible for the course/lecturer:

Prerequisites

KNOWLEDGE: the student has basic general knowledge of mathematics, chemistry, physics, technical drawing, descriptive geometry and surveying. The student has knowledge of geology, soil mechanics and foundation in terms of semester 3 and 4.

Course objective

To familiarize students with the practical aspects of geotechnical research (field and laboratory) and chamber work (interpretation of the obtained results and preparation of geotechnical documentation).

Course-related learning outcomes

Knowledge

The student knows the basics of geology, has detailed knowledge in the field of soil mechanics and foundations of buildings.

Skills

The student is able to obtain information from literature, databases and other properly selected sources; is able to integrate the obtained information, interpret and evaluate it, as well as draw conclusions, formulate opinions and positions and discuss them. The student can read construction drawings and prepare graphic documentation in a traditional and electronic way.

Social competences

The student has the ability to adapt to new and changing circumstances, is able to define priorities in the implementation of tasks defined by himself and others, acting, inter alia, in the public interest and taking into account the Sustainable Development Goals. He is responsible for the reliability of the obtained results and their interpretation. He understands the need for teamwork, is responsible for the safety of his own work and that of the team.

Methods for verifying learning outcomes and assessment criteria

Learning outcomes presented above are verified as follows:

Assessment criteria: practices are passed or not.

The leader of the group determines the grade for:

- presence and activity in the classroom,

- discussion and ongoing preparation,

- execution and collective defense of the practice report in the form of Geotechnical Documentation,

- settlement of individual tasks.

Programme content

Geotechnical categories of building objects. Principles of conducting an on-site visit. Principles of programming geotechnical ground research. Practical application of geotechnical research (field and laboratory). Dynamic penetration. CPT (Cone Penetration Test). Principles for determining the values of characteristic and computational geotechnical parameters. Principles of creating geotechnical sections.

Teaching methods

1. Field research.

2. Laboratory tests.

3. Auditorium exercises

4. Lectures and talks.

5. Preparation of a project (geotechnical documentation).

Bibliography

Basic

1. Pisarczyk S., Gruntoznawstwo inżynierskie, Wyd. PWN, Warszawa 2014.

2. Majer, Sokołowska, Frankowski i inni, Zasady dokumentowania geologiczno-inżynierskiego (w świetle wymagań Eurokodu 7), Dział Wyd. PIG - PIB, Warszawa 2018.

3. Troć M., Wojtasik A., Makroskopowe rozpoznawanie skał i gruntów, Wyd.PP, Poznań 2015.

Additional

1. Wiłun Z., Zarys geotechniki, Wyd. Komunikacji i Łączności, Warszawa 2010.

2. Kostrzewski W., Parametry geotechniczne gruntów budowlanych oraz metody ich oznaczania, Wyd.PP, Poznań 1995.

3. Myślińska E., Laboratoryjne badania gruntów, Wyd. PWN, Warszawa 1998.

4. Pisarczyk S., Grunty nasypowe, Oficyna Wyd. Pol. Warszawskiej, Warszawa 2004.

5. Jeż J., Gruntoznawstwo budowlane, Wyd.PP, Poznań 2004.

6. Jeż J., Biogeotechnika, Wyd.PP, Poznań 2008.

Breakdown of average student's workload

	Hours	ECTS
Total workload	60	2,0
Classes requiring direct contact with the teacher	40	1,0
Student's own work (literature studies, preparation for laboratory classes/tutorials, preparation for tests/exam, project preparation) [1]	20	1,0

[1] delete or add other activities as appropriate