Syllabus

Term:	2022/23/1	**Subject name:**	Geotechnics 1. (Soil Mechanics)	**Subject code:**	MSB135ANEP

Unit (Unit code)	(MIK-MS)
Lecturer responsible for the course:	Ifj. ARADI László
Requirement:	Exam
Classes per week :	2/1/0/0
Classes per term:	10/5/0/0

Purpose of education:

This course is aimed to provide basic and various aspects of soil mechanics. Topics covered by the course include: soil site explorations, Soil classification, Soil classification, soil consistency, soil compaction, stresses in soil, consolidation, permeability, and shear strength of soil.

Contents:

Short description:

This course is aimed to provide basic and various aspects of soil mechanics. Topics covered by the course include: soil site explorations, Soil classification, Soil classification, soil consistency, soil compaction, shear strength of soil, and soil improvement.

This course is designed to teach students how to classify the soil. Explain different techniques of soil site explorations. Explaining and discussing methods of soil compaction. Explaining and discussing hydraulic properties of soil and shear strength of soil. Teaching students different methods of soil improvement

Methodology:

- Lectures: will give the basis of soil exploration, Soil classification Soil classification, soil consistency, soil compaction, shear strength of soil, and soil improvement.

- Practical class and lab practice: Students will be assigned tasks to complete

- Exams: Accumulated knowledge is tested in two exams: a midterm and a final exam. Both feature multiple-choice, true-false or short essay questions.

Syllabus

Term: 2022/23/1 **Subject name:** Geotechnics 1. (Soil Mechanics) **Subject code:** MSB135ANEP

Contents:

Schedule:

Week	Topic of lecture
Week 1	Course description. Orientation.
Week 2	Introduction in Geotechnical Engineering
Week 3	Soil investigation
Week 4	Physical properties
Week 5	Grain size distribution
Week 6	Soil Consistency
Week 7	Soil Classification
Week 8	**Mid-Term Exam**
Week 9	Autumn break
Week 10	Soil compaction - Consolidation
Week 11	Hydraulic Properties of soils (Geo – static stress, Permeability)
Week 12	Shear strength of soils
Week 13	Ground improvement and soil reinforcement

Term: 2022/23/1 **Subject name:** Geotechnics 1. (Soil Mechanics) **Subject code:** MSB135ANEP

Contents:

Week 14	Final exam.
Week 15	Second exams (only if required).

System of examing and valuation:

Attendance:

Attending is required all classes, and will impact the grade (max. 10%). Unexcused absences will adversely affect the grade, and in case of absence from more than 30% of the total number of lesson will be grounds for failing the class. To be in class at the beginning time and stay until the scheduled end of the lesson is required, tardiness of more than 20 minutes will be counted as an absence. In the case of an illness or family emergency, the student must present a valid excuse, such as a doctor's note.

Grading:

10% - Attendance

20% - Assignments

30% - Midterm Exam

40% - Final Exam

Offered exam grade:

Evaluation in percents	Numeric grade
85%-100%	5
70%-84%	4
55%-69%	3

Term: 2022/23/1 **Subject name:** Geotechnics 1. (Soil Mechanics) **Subject code:** MSB135ANEP

System of examing and valuation:

40%-54%	2
0-39%	1

Students with Special Needs:

Students with a disability and needs to request special accommodations, please, notify the Deans Office. Proper documentation of disability will be required. All attempts to provide an equal learning environment for all will be made.

Bibliography:

- Das, B.M. (1998). Principles of Geotechnical Engineering, 4th edition, PWS Publishing Company.

- Holtz, R.D. and Kovacs, W.D. (1981). An Introduction to Geotechnical Engineering, Prentice Hall

- Lecture notes and slides