Syllabus

Term:	2023/24/1	**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: 2023/24/1 **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	Hydraulic Properties of soils (Geo – static stress, Permeability)
Week 10	Shear strength of soils
Week 11	Ground improvement and soil reinforcement

Syllabus

Term: 2023/24/1 **Subject name:** Geotechnics 1. (Soil Mechanics) **Subject code:** MSB135ANEP

Contents:

Week 12	Final exam.
Week 13	Second exams (only if required).

System of examing and valuation:

Attendance

In accordance with the Code of Studies and Examinations of the University of Pécs, Article 45 (2) and Annex 9. (Article 3) a student may be refused a grade or qualification in the given full-time course if the number of class absences exceeds 30% of the contact hours stipulated in the course description.

Method for monitoring attendance *(e.g.: attendance sheet / online test/ register, etc.)*

attendance sheet

assessment

Cells of the appropriate type of requirement is to be filled out (course-units resulting in mid-term grade or examination). Cells of the other type can be deleted.

Course resulting in mid-term grade (PTE TVSz 40§(3))

Term: 2023/24/1 **Subject name:** Geotechnics 1. (Soil Mechanics) **Subject code:** MSB135ANEP

System of examing and valuation:

Mid-term assessments, performance evaluation and their ratio in the final grade

Type	Assessment	Ratio in the final grade
Attendance	10 points	10%
Assignments	15 points	15%
Midterm Exam	25 points	25%
Final Exam	50 points	50%

Opportunity and procedure for re-takes (PTE TVSz 47§(4))

all tests and assessment tasks can be repeated/improved at least once every semester, and the tests and home assignments can be repeated/improved at least once in the first two weeks of the examination period.

Grade calculation as a percentage

based on the aggregate performance according to the following table

Term: 2023/24/1 **Subject name:** Geotechnics 1. (Soil Mechanics) **Subject code:** MSB135ANEP

System of examing and valuation:

Course grade	Performance in %
excellent (5)	85 % …
good (4)	70 % ... 85 %
satisfactory (3)	55 % ... 70 %
pass (2)	40 % ... 55 %
fail (1)	below 40 %

The lower limit given at each grade belongs to that grade.

Course-unit with final examination

Mid-term assessments, performance evaluation and their weighting as a pre-requisite for taking the final exam

Type	Assessment	Weighting as a proportion of the pre-requisite for taking the exam

Syllabus

Term: 2023/24/1 **Subject name:** Geotechnics 1. (Soil Mechanics) **Subject code:** MSB135ANEP

System of examing and valuation:

1. **Attendance**	10 points	10%
1. **Assignments**	15 points	15%
1. **Midterm Exam**	25 points	25%
1. **Final Exam**	50 points	50%

Requirements for the end-of-semester signature

The end-of-semester signatureis successful if the result is minimum 40 %.

Re-takes for the end-of-semester signature (PTE TVSz 50§(2))

All tests and assessment tasks can be repeated/improved at least once every semester, and the tests and home assignments can be repeated/improved at least once in the first two weeks of the examination period.

Type of examination *(written, oral): written*

Syllabus

Term: 2023/24/1 **Subject name:** Geotechnics 1. (Soil Mechanics) **Subject code:** MSB135ANEP

System of examing and valuation:

The exam is successful if the result is minimum 40 %.

Calculation of the grade (TVSz 47§ (3))

The mid-term performance accounts for ***30*** %, the performance at the exam accounts for ***40*** % in the calculation of the final grade.

Calculation of the final grade based on aggregate performance in percentage.

Course grade	Performance in %
excellent (5)	85 % …
good (4)	70 % ... 85 %
satisfactory (3)	55 % ... 70 %
pass (2)	40 % ... 55 %
fail (1)	below 40 %

The lower limit given at each grade belongs to that grade.

Syllabus

Term: 2023/24/1 **Subject name:** Geotechnics 1. (Soil Mechanics) **Subject code:** MSB135ANEP

System of examing and valuation:

Bibliography:

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

- Lecture notes and slides