Practical Soil Mechanics

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Module number	Credits	Workload	Semester[s]	Duration	Group size
SE-O-4	3 CP	90 h	3. Sem.	1 Semester[s]	no limitation

Courses	Contact hours	Self-study	Frequency
a) Practical Soil Mechanics	a) 2 WLH (30 h)	a) 60 h	a) each winter

Module coordinator and lecturer(s)

Prof. Dr.-Ing. Torsten Wichtmann

a) Dr.-Ing. Wiebke Baille

Admission requirements

Recommended previous knowledge:

Completed module in Soil and Rock behaviour (Soil behaviour and simple constitutive models for soils)

Learning outcome, core skills

After successfully completing the modules, the students can

- develop strategies for the experimental investigation of practical geotechnical problems,
- analyze the results of the experimental investigation.

Contents

a)

Different measuring methods used in geotechnical laboratory and field tests are presented. The structure of a measuring chain is explained. Selected laboratory and field tests will be performed and analyzed by the students (including discussion / interpretation of the test results):

- Soil classification tests (water content, grain size distribution, Atterberg limits (plasticity properties), maximum and minimum density, particle density),
- Determination of shear strength parameters (direct shear test, triaxial test),
- Determination of compressibility of soils (oedometer test)

Educational form / Language

a) Seminar / English / German

Examination methods

• Exercises 'Practical Soil Mechanics - Exercises' (<Ohne>, Part of modul grade 0 %)

• Written exam 'Practical Soil Mechanics' (90 min., Part of modul grade 100 %)

Requirements for the award of credit points

- Passed final module examination: written examination
- Exercises (protocols and analysis of performed tests)
- Attendance during classes.

Module applicability

- M.Sc. Subsurface Engineering

Weight of the mark for the final score

Percentage of total grade [%] = 3 * 100 * FAK / DIV

FAK: The weighting factors can be taken from the table of contents.

DIV: The values can be taken from the table of contents.

Further Information