ME-705

Experimental Geomechanics

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Cursus	Sem.	Type
Mechanics		Opt.

Language of teaching	English
Credits	1
Session	
Exam	Oral presentation
Workload	30h
Hours	**14**
Courses	10
TP	4
Number of positions	

Frequency

Every 2 years

Remark

Next time: Spring 2023

Summary

The aim of the course is to provide the students with a detailed description of the modern experimental techniques for testing geomaterials. Techniques and apparatuses are presented to test materials under a variety of situations, including non-isothermal and partially-saturated conditions.

Content

1. Introduction
2. Triaxial testing
3. Microstructural investigation of porous materials
4. Testing geomaterials in partially saturated conditions
4.1 Experimental methods to measure suction
4.2 Techniques for suction control (liquid and vapour transfer)
4.3 Hydro-Mechanical apparatuses
5. Non iso-thermal testing of geomaterials
5.1 Techniques for temperature measurement and control
5.2 Effects of temperature on measurements
5.3 Thermo-Hydro-Mechanical testing facilities
6. Fundamentals of data acquisition