Direzione Ricerca,
Innovazione e
Internazionalizzazione

UNIVERSITÀ
DI TORINO

ID

VP_200_TER

Visiting Professor Program
Academic Year 2025/2026

TEACHING COMMITMENT: **18 hours**

COURSE TITLE

Rock Mechanics and Rock Engineering

TEACHING PERIOD

II semester

SCIENTIFIC AREA

Geothecnics

LANGUAGE USED TO TEACH

English

COURSE SUMMARY

The course is dedicated to the methodologies for the physical-mechanical characterization of rock masses, rock materials and rock discontinuities.
The main laboratory tests conducted for this purpose will be described with specific reference to the "Suggested methods" of the International Society of Rock Mechanics (ISRM).
The theoretical notions will be completed by practical exercises consisting in the interpretation of real tests for the determination of the resistance and deformability characteristics of the analyzed materials.
Particular emphasis will be placed on the effects of scale and the techniques needed to move from the laboratory scale to that of the engineering work being analyzed.
Application examples will be illustrated and exercises will be conducted to demonstrate the different problems dictated by the design of different types of works.

LEARNING OBJECTIVES

The course aims to provide theoretical and practical knowledge to plan test investigations, find the necessary samples and/or data, conduct on-site measurements and work tests, analyze data also with statistical techniques, determine the resistance and deformation characteristics of the materials analyzed at different scales.
The course aims to provide useful tools for geomechanical characterization in different application contexts.

OTHER ACTIVITIES BESIDE THE COURSE

The teacher will provide an advanced seminar dedicated to doctoral students.

VISITING PROFESSOR PROFILE

The profile of the professor suited to the educational objectives described is that of an expert in rock mechanics and engineering with theoretical, practical and applicative knowledge in the field.

CONTACT REFERENT

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