

418SM - APPLIED HYDROGEOLOGY

Aims

The student will acquire the knowledge to realize hydrogeological survey, field measurements and data analysis.

Contents

The course aims to provide the basis for understanding the principles governing the groundwater flow.

General concepts: water-rock interaction, porosity, permeability, Darcy's Law, Transmissibility and underground flow modeling.

Aquatic systems: zoning, primary and secondary permeability complexes, karstic systems, hydrogeological structures, springs.

Geochemistry and groundwater quality.

Methodologies for hydrogeological survey, continuous monitoring stations, surveys, design of wells and interpretation of pumping tests.

Water Resources, Safeguards and Vulnerability

Teaching Format

Lecture, practice and field activity

Assessment

Written and oral exam.

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Obiettivi formativi

Lo studente acquisirà le competenze per progettare un rilievo idrogeologico, eseguire misure sul terreno e interpretare i dati.

Metodi didattici

Lezioni frontali esercitazioni in aula e sul terreno, seminari.

Modalità di verifica dell'apprendimento

Esame scritto e orale