



UNIVERSITÀ DEGLI STUDI DI MILANO

Corso di Dottorato in Scienze della Terra



14 – 17 July 2026 – Short Course (3 cfu, 6 hours)

Dipartimento di Scienze della Terra “A. Desio”, via Mangiagalli 34, Milano

INTEGRATED WATERSHED MANAGEMENT APPROACHES IN ARID AND SEMI-ARID CLIMATES

by Marwan GHANEM



Prof. Marwan GHANEM
Birzeit University
(Ramallah, Palestine)

Course overview

The course provides advanced training on the influence of geological structures and lithology on groundwater flow and hydrochemical characteristics. It emphasizes the integration of geological and hydrogeological data to understand aquifer behavior and geochemical evolution, with a focus on real-world water resources management challenges in arid and semi-arid climates.

For information and registration contact:

Dr. Stefania Stevenazzi (stefania.stevenazzi@unimi.it), Prof. Marco Masetti (marco.masetti@unimi.it)

Course description



This course examines geological controls on groundwater flow, hydrochemistry, and water quality through integrated geological and hydrogeological approaches for water resources management.

Day 1 – 14 July 2026

Geological framework, stratigraphy, structures, karst and fractured aquifers, and conceptual groundwater models.

Day 2 – 15 July 2026

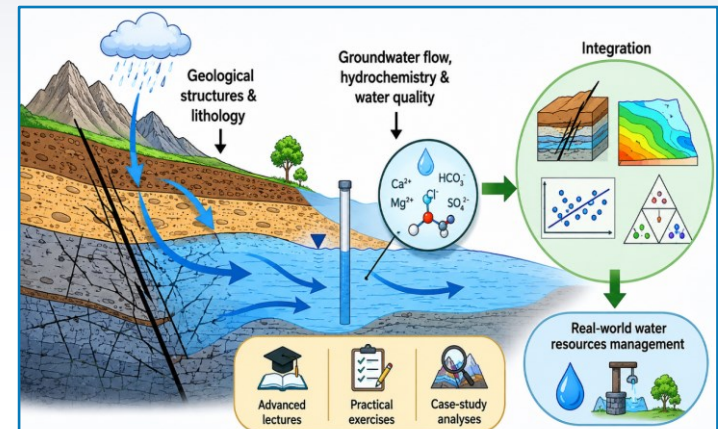
Aquifer behavior, permeability, anisotropy, fracture networks, groundwater flow, transport, and uncertainty evaluation.

Day 3 – 16 July 2026

Groundwater quality, water–rock interaction, salinity, contamination, hydrochemical interpretation, and geochemical modeling.

Day 4 – 17 July 2026


Water resources management, groundwater exploitation, protection, monitoring, and hydrogeological case studies.





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Location and schedule

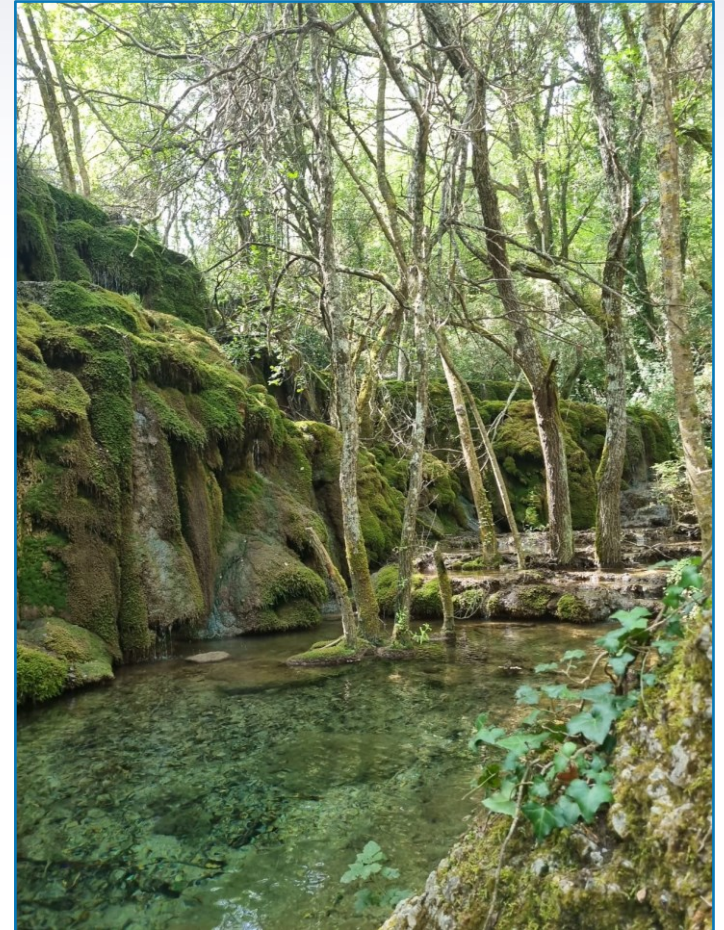
 Dipartimento di Scienze della Terra “A. Desio”
Via Mangiagalli 34, Milano

 **Day 1 – 14 July 2026 – Aula Taramelli**
Morning: 11:00-13:00
Afternoon: 14:30-16:30

 **Day 2 – 15 July 2026 – Aula Stoppani**
Morning: 11:00-13:00
Afternoon: 14:30-16:30

 **Day 3 – 16 July 2026 – Aula Stoppani**
Morning: 11:00-13:00
Afternoon: 14:30-17:30

 **Day 4 – 17 July 2026 – Aula Stoppani**
Morning: 10:30-13:30



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