- Faculté des sciences
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Groundwater pollution and remediation (3GH2186)

Filières concernées	Nombre d'heures	Validation	Crédits ECTS
Master en hydrogéologie et géothermie (*)	**Cours: 30 pg**	**Voir ci-dessous**	5

ph=période hebdomadaire, pg=période globale, j=jour, dj=demi-jour, h=heure, min=minute

Période d'enseignement:

- Semestre Automne

Equipe enseignante:

Daniel Hunkeler

Objectifs:

The objective of the course are:
- to become familiar with the most common groundwater contaminants and their sources
- to understand key processes that control the behavior of these contaminants in the subsurface
- to get an overview of field investigation and groundwater remediation methods
- to understand the legal framework related to the management of contaminated sites

Contenu:

Overview of common chemicals compounds in groundwater.
Discussion of the major processes that control the migration and transformation of organic and inorganic compounds in the subsurface.
Discussion of site caracterization, sampling and analytical methods.
Presentation of Swiss legislation on the mangament of contaminated sites.
Comparison of different method to evaluate the risks associated with groundwater contamination.
Overview of methods for grouondwater remediation.

Forme de l'évaluation:

Written exam (1h) in last afternoon of course.

Documentation:

Power Point presentation.
Script explaining major processes that control the behavior of organic contaminants.
Documentation of case study.

Pré-requis:

Hydrochemistry and Microbiology.

Forme de l'enseignement:

Lectures and exercises
Case studies where students propose a site investigation strategy for a site in groups, followed by a presentation.

(*) Cette matière est combinée avec d'autres matières pour l'évaluation