Université de Paris

Environment structure and processes

Niveau d'étude
Master 2

ECTS
crédits

Période de l'année
Autumn

En bref

Langue(s) d'enseignement: English
Méthode d'enseignement: On site
Forme d'enseignement : Lecture and exercise

Présentation

DESCRIPTION

Short Description

The purpose of this course is to provide an understanding of the fundamental geochemical processes that govern the chemical composition of natural soils, waters and air and the environmental fate of chemical species in natural waters.

Long description

Thermodynamics, kinetics and transport processes regulating the chemistry of air, soil, surface and groundwater in natural and polluted environments, with particular emphasis on explaining the aqueous concentrations of chemical species and controlling geochemical factors in the hydrosphere.

Potential Lectures list

* Complexation Reactions
* Chemical Weathering
* Sorption and Desorption
* Modeling interface processes
* Redox Chemistry
* Kinetics and transport

Each student is required to give two 15 min talks to the class on a specific research topic related to the material covered in class. The talks will be based on a literature search involving journal papers. Tutorials will require the use of the geochemistry program Visual MINTEQ. A download copy (free) is available at http://www.lwr.kth.se/English/OurSoftware/vminteq/ (this program is designed to operate in Windows).

* **Duration (weeks) : 4 weeks**
* **Number of hours per week : 4 to 6 hours /week**

PRÉ-REQUIS NÉCESSAIRES

Prerequisites (language, special knowledge, other courses, BA MA)

Master 1 A theoretical background on chemistry (M1 level) is required to attempt to this UE.

CONTRÔLE DES CONNAISSANCES

Assessment methods (exams), prerequisites for exams :

Final exam (60%), Research Presentations (40%)

En bref

Pour en savoir plus, rendez-vous sur > u-paris.fr/choisir-sa-formation

CONTACTS

Name of the lecturer
M. Benedetti, Y Sivry

EN SAVOIR PLUS

http://www.ipgp.fr/fr/admission-master

Pour en savoir plus, rendez-vous sur > u-paris.fr/choisir-sa-formation