# Hydrogeophysics

**Summary**

This course aims at providing a solid methodological foundation for understanding the principles and the applicability of geophysical techniques relevant for addressing hydrogeological and related environmental problems. The goal is to provide students with pertinent decision making capabilities.

**Content**

Surface- and borehole-based geophysical techniques suitable for the characterization of the vadose and saturated zones

**Keywords**

applied geophysics, hydrogeophysics, soil and rock physics, aquifer, vadose zone

**Learning Prerequisites**

**Important concepts to start the course**

Basic knowledge and interest in subsurface hydrology and soil physics

**Learning Outcomes**

By the end of the course, the student must be able to:

- Assess / Evaluate
- Decide
- Analyze

**Transversal skills**

- Communicate effectively with professionals from other disciplines.
- Give feedback (critique) in an appropriate fashion.
- Use a work methodology appropriate to the task.

**Teaching methods**

Lectures, exercises, self-learning

**Expected student activities**
exercises, literature study

Assessment methods
100 % continuous control:
40 % exercises during the semester
60 % written final exam at the end of the semester

Supervision
Office hours No
Assistants No
Forum No
Others Communication via moodle and informal meetings upon agreement.

Resources
Bibliography

Ressources en bibliothèque
• Hydrogeophysics / Rubin
• An Introduction to Geophysical Exploration / Kearey
• Groundwater Geophysics / Kirsch

Moodle Link
• http://moodle2.unil.ch/course/view.php?id=2819