



## RECONNAISSANCE ET COMPORTEMENT DES SOLS

### SOILS SURVEY AND SOILS BEHAVIOUR

Lecturers: **Eric VINCENS, Francesco FROILIO**

| Lecturers : 16.0 | TC : 0.0 | PW : 8.0 | Autonomy : 0.0 | Study : 4.0 | Project : 0.0 | Language : FR

#### Objectives

---

Any development is likely to disturb a natural balance and this risk must be able to be assessed by a in-depth knowledge of the site and the appropriate scientific tools.

The objectives of this course are:

- to give students the knowledge necessary to define and carry out a campaign to recognize soils of a site, this recognition will be supplemented by laboratory tests
- to present the analysis tools making it possible to assess the risks of instability of natural slopes or those built by

**Keywords :** soil, sand, clay, instability

---

#### Programme

Experimental behavior of soils (clay + sands)  
Soil recognition (in situ tests + laboratory)  
Slope stability (static + dynamic)

#### Learning outcomes

- master the different geomechanical and hydraulic models
- know how to analyze the stability of embankments and slopes
- understand the behavior of soils according to their nature

#### Independent study

Objectifs :

Méthodes :

#### Core texts

G. Olivari, *MÉCANIQUE DES SOLS*, ECL-SDEC polycopié  
Ph. Mestat *DE LA RHÉOLOGIE DES SOLS À LA MODÉLISATION DES OUVRAGES GÉOTECHNIQUES* , 2000

#### Assessment

- Microtests: closed-book examination
- Lab experiments
- Final exam: closed-book examination