

UE Project in engineering seismology [seismic vulnerability, site characterization, ground motion simulation]



Niveau d'étude
Bac +5



ECTS
3 crédits



Composante
UFR PhITEM
(physique,
ingénierie, terre,
environnement,
mécanique)



Période de
l'année
Toute l'année

- > **Langue(s) d'enseignement:** Anglais
- > **Ouvert aux étudiants en échange:** Oui
- > **Code d'export Apogée:** PAX9RSAB

Présentation

Description

This unit aims to learn the most recent methods used to assess ground motion caused by earthquakes, characterize shallow structures for seismic response analysis, or assess seismic hazard, seismic vulnerability and seismic risk in urban areas. The unit is organized in the form of a project to develop one of the abovementioned topics. The basic notions are first introduced in the "Engineering Seismology" lectures (wave propagation, fault rupture mechanisms, empirical and numerical ground motion prediction, non-invasive methods for characterizing shallow ground structure, ground-motion parameters used in earthquake engineering, structural dynamics applied to seismology, seismic vulnerability, structural health monitoring).

Heures d'enseignement

UE Project in engineering seismology - CM/TD

Cours magistral - Travaux dirigés

21h

Pré-requis recommandés

This project relies on solid knowledge in Seismology and Seismic Risk. It is strongly recommended to previously follow the unit “Engineering Seismology”.

Période : Semestre 9

Infos pratiques

Campus

› Grenoble - Domaine universitaire