

UE Quantitative seismology

 ECTS
6 credits

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

 Semester
Automne

- > **Teaching language(s):** French
- > **Open to exchange students:** Yes
- > **Code d'export Apogée:** PAX9GPAA

Presentation

Description

The main motivation of the course is to introduce the fundamental equations underlying the essential theoretical and numerical approaches used in seismology. Its objective is to provide basic knowledge of the mathematical and physical background for quantitative seismology. The course contents includes elements of mechanics, concepts of waves and vibrations, seismic earthquake source representation, kinematics and directivity, seismic wave propagation in layered media, synthetic seismogram computation, focal mechanisms, fault mechanics and models, surface waves, anelastic attenuation, ground motion prediction.

Course parts

CMTD

Lectures (CM) & Teaching Unit (UE)

48h

Period : Semester 9

Useful info

Place

› Grenoble

Campus

› Grenoble - Saint-Martin d'Hères