

UE Waves Physics

 **ECTS**
3 credits

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

 **Semester**
Automne

- > **Teaching language(s):** English
- > **Open to exchange students:** Yes
- > **Code d'export Apogée:** PAX7GEAB

Presentation

Description

The wave physics course aims to provide students with the theoretical knowledge necessary to study wave propagation for geophysics. The course covers the following concepts

- Propagation of acoustic waves in fluids, in infinite and bounded media (guided waves)
- Green's functions in fluids
- Propagation of elastic waves in solids
- Laws of refraction, Huygens' principle, Khirkchoff's theory of diffraction
- Rayleigh, Love, Lamb, Scholte, Stoneley waves

The course is illustrated by practical work allowing the application of these concepts:

- Measurement and inversion of Lamb wave propagation
- Standing waves in a Kundt's tube
- Ultrasonic imaging



Course parts

UE Waves Physics - TD	Tutorials (TD)	6h
UE Waves Physics - CM/TD	Lectures (CM) & Teaching Unit (UE)	12h
UE Waves Physics - TP	Practical work (TP)	9h

Useful info

Campus

› [Grenoble - University campus](#)