

UE Basic geomechanics



Niveau d'étude
Bac +4



ECTS
3 crédits



Composante
UFR Physique,
Ingénierie,
Terre,
Environnement,
Mécanique
(PhITEM)



Période de
l'année
Automne (sept.
à dec./janv.)

Diplômes intégrant cet élément

- Master Génie civil

- **Langue(s) d'enseignement:** Anglais
- **Ouvert aux étudiants en échange:** Oui
- **Code d'export Apogée:** PAX7MEAK / PAX8MEAD / PAX9CEAC

Présentation

Description

The course provides the students with the basic concepts of geomechanics, that is the theoretical and applied science dealing with the mechanical behavior of geomaterials (soil and rock).

Objectifs

Teaching program:

The first part of the course covers the basic subjects of geomechanics such as stress and strain, permeability and consolidation, compressibility, shear strength, testing techniques, etc. The course then focuses on the mechanical behaviour of geomaterials and provides a basic understanding of the features that are specific to geomaterials (dilatancy, friction, pressure dependence) and

the modelling of such complex phenomena. In particular, an introduction is given to the ideas and concepts of elastoplasticity, this subject being of critical importance to geomechanics and geotechnical engineering.

Heures d'enseignement

CMTD

Cours magistral - Travaux dirigés

20h

Pré-requis recommandés

continuum mechanics

Période : Semestre 8

Infos pratiques

Lieu(x) ville

➤ Grenoble

Campus

➤ Grenoble - Domaine universitaire