UE Changement climatique / Climate change

Niveau d'étude
Bac +5

ECTS
6 crédits

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

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

Diplômes intégrant cet élément

- Master Sciences de la terre et des planètes, environnement

Langue(s) d'enseignement: Français, Anglais

Ouvert aux étudiants en échange: Oui

Code d'export Apogée: PAX9SRAH

Présentation

Description

This course is given in English (or in French if all students are french speaking).

The course is a physical approach of the climatic change at the global level, in line with the Working group I of the IPCC .

The lectures (about 33-36h) give an overview of climate change causes and mechanisms at the global level. They are given by researchers of the IGE laboratory (**), and some visitors if any. Topics covered by these lectures are the following (they may slightly change depending on researchers availability):

- A global view of the surface warming, and its relationship with climatic forcings;

- Climatic sensitivities; scenarios of future warming;

- Extreme climatic events;

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- Paleoclimatic variations and what they tell us on mechanisms;

- Modelling climate, from 1D to 3D models;

- A regional model, application to the mountain climate.

Students have a practical project to discuss a dataset, with the goal to get some grasp on what the data can tell us, their uncertainty, bias, etc. Outputs are both a written and an oral presentations of the results.

Heures d'enseignement

CMTD	Cours magistral - Travaux dirigés	42h

Période : Semestre 9

Infos pratiques

Campus

Grenoble - Domaine universitaire

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