

# UE Modelling and numerical simulations



Niveau d'étude  
Bac +4



ECTS  
3 crédits



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



Période de  
l'année  
Printemps (janv.  
à avril/mai)

- > **Langue(s) d'enseignement:** Anglais
- > **Ouvert aux étudiants en échange:** Oui
- > **Code d'export Apogée:** PAX8NQAD

## Présentation

### Description

*Goal:* Because numerical tools in nowadays science research has become unavoidable, this course aims in familiarizing with methodologies, Python language and algorithms, ranging from classical to quantum physics, when the use of the numerics is inevitable to get answers to a problem.

*Content:* Based on independent projects starting on day one and possibly related to the different topics encountered during their master, the students will have to do an A to Z study, developing their own model, implementing it in Python with an appropriate approach, benchmarking it by understanding pros and cons and eventually doing the physical analysis.

### Heures d'enseignement

UE Modeling and numerical simulations - CMTD

Projet tutoré

24h

**Période :** Semestre 8

## Infos pratiques



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## Campus

> Grenoble - Domaine universitaire