

UE Numerical methods

 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:** PAX7ECAG

Presentation

Description

This course offers an introduction to numerical analysis.

Content:

- Approximation and interpolation.
- Numerical integration and derivation.
- Numerical methods for nonlinear problems.
- Numerical resolution of ordinary differential equations (non-stiff, stiff) and differential algebraic equations.
- Numerical linear algebra:
 - Fast linear solvers (direct and iterative).
 - Fast eigen-solvers.

Course parts

UE Numerical methods - CM/TD	Lectures (CM) & Teaching Unit (UE)	18h
UE Numerical methods - TP	Practical work (TP)	12h

Useful info

Campus

› [Grenoble - Scientific Polygon](#)