

Materials and nanomaterials modelling

 **ECTS**
3 crédits **Composante**
UFR Chimie,
UFR des
Sciences
fondamentales
et biomédicales **Volume horaire**
20h **Période de
l'année**
Semestre 3

En bref

- **Langue(s) d'enseignement:** English
- **Forme d'enseignement :** Cours magistral & Travaux pratiques
- **Ouvert aux étudiants en échange:** Non

Présentation

DESCRIPTION

The aim of this course is to introduce fundamental principles of solid state physics. It provides students with the theoretical tools to address various aspects of materials and nanomaterials, from their growth to characterization using techniques such as spectroscopy, diffraction, and near-field microscopy. We present methods for studying periodic materials, describing their structures, thermodynamics, electronic and magnetism properties. We emphasize the definition of basic concepts and the orders of magnitude involved.

HEURES D'ENSEIGNEMENT

Materials and nanomaterials modelling	Cours Magistral	12h
Materials and nanomaterials modelling	Travaux Pratiques	8h

PRÉ-REQUIS NÉCESSAIRES

Basic on quantum chemical methods, knowledge of materials, surface characterization technics.

En bref

CONTACTS

Responsable pédagogique

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