

# UE Characterization of bio-molecular interactions at surfaces

 Level  
Baccalaureate  
+5

 ECTS  
3 credits

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

 Semester  
Automne

- › **Teaching language(s):** French, English
- › **Open to exchange students:** Yes
- › **Code d'export Apogée:** PAX9NBAE

## Presentation

### Description

Introduce the main analytical techniques to characterize molecular and biomolecular interactions, nanomaterials, surfaces and interfaces will be presented by the lecturers.

- Electronic microscopies
- Near field microscopies (AFM, STM, SNOM,...)
- Note that a ↗ more detailed approach of these techniques is available as an elective course.
- Surface analysis (XPS, AES, SIMS, EXAFS...)
- X-ray diffraction
- Large facilities (↗ neutrons, ↗ ESRF)
- Optical techniques (ellipsometry, spectroscopies, SPR, OWLS,...)
- Nanogravimetry

---

## Course parts

UE Characterization of bio-molecular interactions at  
surfaces - CM

Lectures (CM)

20h

**Period :** Semester 9

---

## Useful info

---

### Place

› Grenoble

---

### Campus

› Grenoble - University campus