

Macro- to nano-structuration of Surfaces

 **ECTS**
3 crédits**Etablissement(s)**
UFR Chimie,
UFR des
Sciences
fondamentales
et biomédicales**Volume horaire**
24h**Période de
l'année**
Semestre 2

En bref

- **Langue(s) d'enseignement:** Anglais
- **Forme d'enseignement :** Cours TD
- **Ouvert aux étudiants en échange:** Non

Présentation

DESCRIPTION

This teaching unit is an introductory course on surface structuration. The topics treated during the TU are as follows:

- i) reminders on surface properties (surface roughness and energy) (2 hours);
- ii) surface modification by physical methods: from deposition methods (thermal evaporation, spin-coating), etching/functionalization methods (plasma techniques) to photolithography techniques (7 hours);
- iii) surface modification by chemical methods: from the gas phase: Chemical Vapour Deposition (CVD), Atomic Layer Deposition (ALD), or from solution phase: self-assembled monolayers, electrochemical methods (electrografting, electrodeposition, electropolymerization) (8 hours);
- iv) Printing deposition techniques: definition, process and applications; inks and substrates properties and interaction, examples of printing techniques (inkjet, screen-printing, capillary printing). Examples and applications of surface structuration by printing (7 hours).

HEURES D'ENSEIGNEMENT

Macro- to nano-structuration of Surfaces	Cours Magistral	20h
Macro- to nano-structuration of Surfaces	Travaux Dirigés	4h

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PRÉ-REQUIS OBLIGATOIRES

Basic knowledge on surface properties (UE Basis of Surface Chemistry M1S1)

En bref

CONTACTS

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