

UE Biomaterials



Niveau d'étude
Bac +5



ECTS
3 crédits



Composante
UFR de Chimie
et de biologie



Période de
l'année
Toute l'année

Diplômes intégrant cet élément

- Master Chimie

- › **Langue(s) d'enseignement:** Français
- › **Ouvert aux étudiants en échange:** Oui
- › **Code d'export Apogée:** YAX9CH40

Présentation

Description

In this lecture, students learn polymeric materials for the applications in the medical field, especially their macromolecular structure and organization as well as structure-function relationships. The main families of synthetic and natural polymer materials used in living tissues and/or biological fluids are presented. Emphasis is placed on the properties and characterization of stimuli-responsive polymers and hydrogels that can sense specific biological signals and trigger a therapeutic action appropriate to local pathological or physiological environments. The course will be illustrated with applications in the field of controlled drug release and tissue engineering.

Objectifs

Skills:

Knowledge of stimuli-responsive polymers and biopolymers and their use for the design of biomaterials for biomedical applications.

Heures d'enseignement

TD	TD	9h
CM	CM	15h

Pré-requis recommandés

Prerequisites:

Polymers 1 (M1 Master Program)

Période : Semestre 9

Infos pratiques

Contacts

Responsable pédagogique

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Lieu(x) ville

› Grenoble

Campus

› Grenoble - Domaine universitaire