



INTERACTIONS MATÉRIAU-VIVANT

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Lecturers: **Emmanuelle LAURENCEAU, Vincent FRIDRICI**

| Lecturers : 3 | TC : 2 | PW : 6 | Autonomy : 6 | Study : 4 | Project : 0.0 | Language : FR

Objectives

Through this course, the fundamental aspects linked to the biological, physicochemical and mechanical phenomena involved during the contact between a surface and a biological medium will be treated. The link with the bioengineering of interfaces and its application will be approached in various forms: analysis of articles, realization of devices, design office

Keywords :

Programme

Course (3h):

- Physico-chemistry of interfaces
- Biomechanics of interfaces

BE (4h): Tribo-mechanics of living tissue

Practical work (6h): Realization of a glucose biosensor

TD (2h): Restitution of the analysis of scientific articles

Learning outcomes

- Understanding the biomechanical challenges of aging and prosthetic medicine
- Know some techniques for characterizing living tissue
- Establishment of an experimental protocol
- Write a complete technical report, correctly referenced

Independent study

Objectifs :

Méthodes : Analysis of scientific articles

Core texts

Assessment

50% knowledge (oral presentation of review articles), 50% know-how (practical report)