

Electrochemistry of Modified Surfaces



SCHOOL

Faculty of Science



CAMPUS

Belle-Beille



LEVEL

2nd year Master's degree



OPEN TO EXCHANGE STUDENTS

Yes



SEMESTER

Fall (S1)

> **Degree course:** Light, Molecules, Matter

> **Teaching unit:** UE4

> **Course language:** English

> **Duration (hours):** 35

> **ECTS:** 3

> **Teacher(s):** Tony BRETON

> **Assessment:**

Continuous assessment

Final exam

> **Teaching methods:**

Lecture course 16 hours

Tutorial course 11 hours

Practical work 8 hours

Case study

Project

COURSE DESCRIPTION

The different conductive surface modification methods will be presented and their study will be detailed through practical work. The characterization of these nanomaterials will be studied via electrochemical and coupled techniques (electrochemical microbalance, spectro-electrochemistry, and electrochemical microscopy). Finally, applications in catalysis, luminescence and energy storage will be the subject of case studies.

OBJECTIVES

The objective of this module is to train students in surface functionalization at the nanometric scale and bring skills in the electrochemical characterization of surface and divided nanomaterials.