

# UE Analysis, formulation and coatings



Niveau d'étude  
Bac +5



ECTS  
3 crédits



Composante  
UFR Chimie-  
Biologie



Période de  
l'année  
Toute l'année

- > **Langue(s) d'enseignement:** Anglais
- > **Ouvert aux étudiants en échange:** Oui
- > **Code d'export Apogée:** YAFP9U14

## Présentation

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### Description

Course outline:

This course covers fundamental and applied aspects related to the formulation of polymer materials and to their application in the field of coatings and composite polymer materials.

Practical work:

Rheological study of physical hydrogels, solid state characterization of semi-crystalline polymers by optical microscopy, thermal characteristics determination of polymers by Differential Scanning Calorimetry (DSC), analysis of solid polymer materials (tensile characteristics and resistance impact), analysis of the elasticity and equilibrium swelling of polymer networks, Scanning Electron Microscopy (SEM) of polymer composites.

### Objectifs

Skills:

Knowledge of formulation of polymers, their characterization, their properties, and applications.

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## Heures d'enseignement

UE Analysis, formulation and coatings - CM	CM	15h
UE Analysis, formulation and coatings - TP	TP	16h
UE Analysis, formulation and coatings - TD	TD	9h

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## Pré-requis recommandés

Prerequisites:

Polymers 1 & 2 (M1 Master Program)

**Période** : Semestre 9

## Infos pratiques

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### Contacts

Responsable pédagogique

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### Lieu(x) ville

> Grenoble

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### Campus

> Grenoble - Domaine universitaire