

UE Chemical thermodynamics and kinetics for biologists - CHI335 -

 ECTS
6 crédits

 Composante
Département
de la licence
sciences et
technologies
(DLST)

- > **Langue(s) d'enseignement:** Anglais
- > **Ouvert aux étudiants en échange:** Non
- > **Code d'export Apogée:** YAX3CH95

Présentation

Description

This course deals with the kinetics and thermodynamics of chemical reactions in relation to biology. It deals in particular with reaction rates, enthalpies, entropy, thermodynamic cycles and goes into greater detail on the notions of acid/base. The concepts covered in the course are applied in the practical sessions via exercises and in the practical sessions through calorimetry and conductimetry experiments.

Heures d'enseignement

UE Chemical thermodynamics and kinetics for biologists - TD	TD	30h
UE Chemical thermodynamics and kinetics for biologists - TP	TP	8h
UE Chemical thermodynamics and kinetics for biologists - CM	CM	19,5h

Pré-requis recommandés

First year level in mathematics. MAT103.

First year level in general chemistry. CHI131. CHI231.

Extent of reaction, chemical activities, equilibrium constant, pH of a strong acid or base.

Compétences visées

- Know basic concepts of chemical kinetics and be able to perform simple calculations
- Apply the law of energy conservation to chemical reactions
- Understand the concept of entropy and how it affects chemical reactions
- Be able to predict the evolution of a chemical system from its initial conditions, based on thermodynamic constants
- Be able to calculate the pH of a mixture of acids and/or bases

Infos pratiques

Contacts

Responsable pédagogique

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Lieu(x) ville

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Campus

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