

UE General chemistry - CHI231 -



ECTS
6 crédits



Composante
Département
de la licence
sciences et
technologies
(DLST)



Période de
l'année
Printemps (janv.
à avril/mai)

Diplômes intégrant cet élément

- Licence Chimie

- > Langue(s) d'enseignement: Français
- > Ouvert aux étudiants en échange: Non

Présentation

Description

This general chemistry teaching unit is centered on the molecule and early concepts of reactivity.

After the study of the structure of the atom during the first semester, the CHI231 course is dedicated to hybridization, representation of molecules with details on the different classes of isomers, different mesomeric forms, and understanding of the electronic effects of different groups.

A portion of this class will also be dedicated to coordination complexes with a focus on the description of their stereochemistry, the understanding of the crystal field theory and ligand exchanges.

Finally, after a rapid introduction of the main functional groups and the nomenclature rules for the naming of the different compounds, a last chapter will be dedicated to intermolecular interactions and a mechanistic approach of the substitution and elimination reactions and the associated reactivity.

Heures d'enseignement

TD	TD	16,5h
TP	TP	21h
CM	CM	22,5h

Pré-requis recommandés

CHI131 : electronic structure of atoms, atomic orbitals, Lewis representation of molecules, VSEPR and molecular orbitals.

Période : Semestre 2

Compétences visées

Draw and name organic molecules and coordination complexes.

Identify electronic effects provided by the different chemical functional groups and effects induced by molecular interactions.

Know and understand the crystal field model.

Identify the substitution and elimination reactions among other chemical reactivity.

Infos pratiques

Contacts

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Lieu(x) ville

➤ Grenoble

Campus

➤ Grenoble - Domaine universitaire