UE Développement chimique

ECTS
3 credits

Component
UFR Chimie-Biologie

Semester
Tous les ans

> **Teaching language(s):** French
> **Open to exchange students:** Yes

Presentation

Description

Course outline:

The main part of the course deals with the chemical development of an active ingredient (i.e. pharmaceutical ingredient or agrochemical) from milligrams to tons: how the discovery chemistry synthesis route evolves into a manufacturing process. Besides, several lessons aim to revive prior knowledge of industrial
organic chemistry, with emphasis on the connections between raw materials, commodity chemicals and applications.

Details:

- The chemical development of a bioactive compound is first addressed through an open discussion. Students then work individually and in small teams to gather informations from selected publications. Their reports to the class allow all students to discover important aspects of chemical development. The topic is later on presented extensively by professionals from the industry (lectures). Tutorials dealing especially with the safety of chemical processes complete the course.

- After a brief overview of the business sectors related to chemistry and the sources of organic chemicals (petroleum, coal, biomass), selected end products are traced back to the commodity chemical they are synthesized from, and further to the raw materials (quiz and lectures).

Course parts

UE Chemical development- CM	Lectures (CM)	18h
UE Chemical development - TD	Tutorials (TD)	15h

Period : Semester 9

Skills

Skills:

Students will develop knowledge of the main organic chemicals used in chemical industries and their applications, and of the chemical development of a bioactive compound in the pharmaceutical or crop science industries.
They will develop further skills in analyzing and communicating informations, working individually and in teams.

Useful info

Contacts

Program director
Veronique Blandin

✉ Veronique.Blandin@univ-grenoble-alpes.fr

Place

> Grenoble

Campus

> Grenoble - University campus