

- Faculté des sciences
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Natural products chemistry (3CH2018)

Filières concernées	Nombre d'heures	Validation	Crédits ECTS
Master en biologie	Cours: 7 dj	contrôle continu: 1	3

ph=période hebdomadaire, pg=période globale, j=jour, dj=demi-jour, h=heure, min=minute

Période d'enseignement:

- Semestre Printemps

Equipe enseignante:

Prof Reinhard Neier, Armelle Vallat, Gaëtan Glauser, Damien Thevenet

Objectifs:

In this lecture some of the most important classes of natural products will be presented. The methods to isolate and to determine the structures of natural products will be discussed. Finally chemical, physiological, ecological and pharmaceutical properties of some selected natural products will be discussed.

- Be able to recognize the fundamental families of natural products
- Be capable to describe the 3-D structure of natural products
- To analyse the properties of natural products
- To recognize the most important steps of the biosynthesis of natural products
- To describe and to understand the process of isolation and structure determination of natural products

Contenu:

- Introduction to Natural Products Chemistry
- Classical and modern methods of natural products analyses and determination
- Selected classes of natural products presented according to their biosynthesis
- Polyketides
- Isoprenoïdes
- Derivatives of shikimic acid : phenylpropanoïdes, lignines and lignanes
- Alcaloïdes
- Labelling studies for the elucidation of biosynthetic pathways
- Functions and applications of natural products

Forme de l'évaluation:

40% continuous evaluation (2 oral presentations on a selected subject)
60% written exam

Documentation:

<https://claroline.unine.ch/>

Pré-requis:

University introductory courses in general chemistry, organic chemistry and Natural substances analyses (3BL2196).

Forme de l'enseignement:

Lectures, demonstration labs and presentations.