

- 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	controle 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:

The importance of natural products will be discussed. The methods to isolate and to determine the structures of natural products will be presented. Finally chemical, physiological, ecological and pharmaceutical properties of some selected natural products will be discussed. Learn to do a structure and a literature search of natural products including the patent literature
Recognize the fundamental families of natural products
Understand the process of isolation, analytics and structure determination of natural products
Analyse the properties of natural products
Identify the central steps of the biosynthesis of natural products
Describe the 3-D structure 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:

Continuous evaluation composed of:
Short presentation on the importance of Natural Products Chemistry: 40%
Literature search followed by establishing an analytical worksheet: 60%

Documentation:

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

Pré-requis:

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

Forme de l'enseignement:

Lectures,
Presentation of selected subjects
Introduction to Scifinder