

- Faculté des sciences
- www.unine.ch/sciences

Natural products chemistry + labs (3CH2018)

Filières concernées	Nombre d'heures	Validation	Crédits ECTS
Master en biologie	Cours: 7 dj	Voir ci-dessous	3

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

Période d'enseignement:

- Semestre Printemps

Equipe enseignante

Stephan von Reuss (stephan.vonreuss@unine.ch; bâtiment G, E17)

Contenu

- Introduction to Natural Products Chemistry
- Methods for Natural Products analyses and structure elucidation
- Selected classes of Natural Products
- Biogenesis of Natural Products
- Methods for the elucidation of biosynthetic pathways
- Functions and applications of natural products

Forme de l'évaluation

Continuous evaluation. Grades composed of three parts: [1] Short presentation of selected research articles & participation in the corresponding discussions (1/3), [2] performance and result during laboratory sessions [potentially to be replaced by written report by the student if required] (1/3), [3] result of written test (1 h) at the end of the course (1/3).

Modalités de rattrapage

Retake attempt: must be registered at next session and coordinated with professor (not in Pidex).

Documentation

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

Pré-requis

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

Forme de l'enseignement

Lectures,
Presentation of selected research articles by students,
Laboratory sessions (potentially replaced by written reports from students, if required).

Objectifs d'apprentissage

Au terme de la formation l'étudiant-e doit être capable de :

- Explain the basic principles and limitations of fundamental analytical techniques such as mass spectrometry and NMR spectroscopy that are readily available on site via the NPAC
- Carry out sample derivatization reactions to increase volatility of secondary metabolites for GC-EIMS analysis
- Carry out a simple fractionation of a complex metabolite mixture using Solid Phase Extraction (SPE)

Compétences transférables

- Communicate analytical research questions
- Interpret results from interdisciplinary research
- Apply knowledge in concrete situations

URLs	1) https://moodle.unine.ch/course/view.php?id=5798
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