

- Faculté des sciences
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### Natural products chemistry + labs (3CH2018)

Filières concernées	Nombre d'heures	Validation	Crédits ECTS
<b>Master en biologie</b>	<b>Cours: 7 dj</b>	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](mailto: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).

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) <a href="https://moodle.unine.ch/course/view.php?id=5798">https://moodle.unine.ch/course/view.php?id=5798</a>
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