

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

Microbial ecology (3BL2238)

Filières concernées	Nombre d'heures	Validation	Crédits ECTS
Master en biologie	Cours: 3 ph	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:

Pilar Junier & Saskia Bindschedler

Objectifs:

The aim of this teaching is to obtain a thorough understanding of current topics related to the role of microbes (both fungi and bacteria) in the environment. This will be done through a practical approach consisting of developing a small research project, from literature review to results analysis, during both the lecture in environmental mycology and microbial ecology.

Contenu:

This teaching will focus on dealing with the latest research in the field and presenting the research performed in our laboratory. This will be combined into a practical work consisting in elaborating the conceptual framework of a specific research area, identifying research questions and hypotheses and translating this into an experimental work. Finally, the writing of a report will allow synthesizing the work carried out during the semester.

Forme de l'évaluation:

The evaluation of this teaching is based on a graded continuous assessment.

1. Presence to the lectures: 10%
2. Contribution to the production of a literature summary: 20%
3. Active participation to the experimental part: 30%
4. Results analysis and reporting: 40%

For the experimental part, the assessment of the participation of each student will be based on their overall behaviour during laboratory work, as well as on a laboratory book that should be written in turn by all participants.

For the report on the practical part, the students will have to provide a common report in the form of a small research article. The scientific topic of this report will be defined during the teaching and the results to be presented and discussed will be generated during the practical part of this teaching. The sections that should appear in the report are: Introduction (with question and hypotheses); Material and methods; Results and discussion; Reference list. The report should not be more than 4 pages (Arial font, size 11) without figures and references and should be sent per e-mail as a pdf file. The deadline to hand out the report is June 1st 2018.

In case of an insufficient evaluation, an updated version of the report will be required together with a 30 minutes oral presentation (15 minutes presentation and 15 minutes questions) that will allow assessing the extent of the candidate's knowledge on the topics developed in this teaching. After the publication of results, the student has the responsibility to contact the teacher in advance in order to define a date to hand out the report as well as a date for the oral presentation. The oral presentation should take place within one week after the date by which the report has been handed out. The oral evaluation does not necessary need to take place within an exam session, but it should be organized at the latest 5 days before the end of the following exam session.

Documentation:

A series of topics will be defined together with the participants. Examples of those topics are:

1. Biodiversity and ecology of microbial communities
2. Fungal highways
3. Bacterial dispersal

Specific scientific articles for each topic will be discussed during the lectures.

Pré-requis:

Basic concepts in microbiology of a Bachelor level

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Forme de l'enseignement:

Lectures, seminars, practical work, and discussion of scientific articles