

- Faculté des sciences
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Environmental mycology (3BL2239)

Filières concernées	Nombre d'heures	Validation	Crédits ECTS
Master en biologie	Cours: 2 ph	controle continu: 1	2

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

Période d'enseignement:

- Semestre Printemps

Equipe enseignante:

Saskia Bindschedler

Objectifs:

This teaching will focus on understanding the diverse roles of fungi in the environment. In particular it will focus on their role in nutrient cycling and soil formation, in ecosystem functioning and in the degradation of recalcitrant materials. The latest research news in the field and research performed in our laboratory will also be presented. Finally, a practical part consisting of field sampling and laboratory work will be planned in the second half of this teaching.

Contenu:

Using both theoretical and practical work, this teaching will deal with the following concepts: importance of fungi in the biosphere, the mycorrhizosphere concept, the role of fungi in bioweathering and biomineralization, wood degradation and bioremediation of pollutants by fungi.

Forme de l'évaluation:

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

For the overall evaluation, the work conducted during the semester will be evaluated in the following way:

1. Presence to the lectures: 10%
2. Presentations during lectures: 30%
3. Contribution to the discussion during presentations: 10%
4. Report on the practical part: 50%

For the presentation during lectures, each student will have to prepare a 10 minutes presentation consisting of a critical assessment of a scientific article. For this, each student will have to select a topic in relationship with the concepts developed in this teaching and find a research article in this topic. Before it can be presented, the choice of the article has to be validated by the teacher.

For the report on the practical part, each student will have to provide a 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 6th 2017.

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 necessarily 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:

References in mycology : 1) Moore D, Robson GD, Trinci APJ, 2011, 21st century guidebook to fungi. 2) Deacon J, 2006, fungal biology. PDF files and books/papers references discussed during lectures.

Pré-requis:

Basic concepts in mycology of a Bachelor level.

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Forme de l'enseignement:

Ex cathedra classes and practical work.