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Microbial ecology (3BL2238)

Filières concernées	Nombre d'heures	Validation	Crédits ECTS
Master en biologie	**Cours: 28 pg**	**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

JUNIER Pilar

Contenu

The goal of this lecture is to discuss selected topics in microbial ecology, focusing on subjects that are not covered in the Bachelor's program.

The course will be structured into two parts. In the first part, we will present and discuss theoretical background and develop key concepts associated to the second part. The second part will be dedicated to experimental work in a topic in microbial ecology. This year the topic selected is biocontrol of toxigenic cyanobacteria.

The selected topics are:
1- Astrobiology (Dr. Mathilda Fattion)
2- Microbial habitats
2- Microbial interactions
3- Archaea

Forme de l'évaluation

The evaluation of this teaching is based on a graded continuous assessment, consisting of the following elements:
- Participation to the preparatory activities (key concepts; 30%)
- Participation to experimental work (30%)
- Submission of an article (short report) of 2000 words (excluding references) focusing on the experimental work performed during the lecture (40%). Deadline: 29.05.2026

Modalités de rattrapage

In case of a grade below the pass grade (4), the student should contact the teachers to fix the topic of a 2000-words essay to be handed two weeks before the end of the following exam session.

Documentation

Scientific articles will be provided and discussed during the lectures.

Pré-requis

Basic concepts in microbiology of a Bachelor level

Forme de l'enseignement

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

Objectifs d'apprentissage

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

- Interpret recent scientific information in the field
- Illustrate methods discussed in the theoretical lectures for the accomplishment of a scientific project.
- Discuss current topics in microbial ecology in the context of sustainable agriculture
- Identify a scientific goal
- Develop a research project

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- Provide critical feedback in the projects of peers
- Establish a scientific hypothesis
- Outline a research question on the topic

Compétences transférables

- Explain a scientific question
- Translate theoretical knowledge into practice
- Review scientific literature
- Invent a novel idea