


 Faculty of Sciences

**BIO1313 Morphology and physiology of fungi**

[15h+10h exercises] 2 credits

This course is taught in the 1st semester

**Teacher(s):** Anne-Marie Corbisier  
**Language:** French  
**Level:** First cycle

**Aims**

## Competences

Use of fungal terminology

Allocation of a fungal species to a main taxon

Ability to use identification procedures to the fungal species (including yeasts, molds and filamentous fungi)

Mastering the different forms of fungal sexuality and of principal asexual developments

## Knowledge

Introduction to fungal terminology and associated references allowing autonomy to the student. The main taxons and life cycles of some representative species. The double nomenclature of sexual and asexual cycles (anamorphic and teleomorphic names). The fungal sexuality (bipolar and tetra polar, tetrad analysis, homothallic, heterothallism, parasexuality). Symbioses : lichens and mycorrhizes (ecto- and endomycorrhizes). In vitro culture of endomycorrhizes. Main groups of fungi and their applications in biotechnology and environmental bioremediation.

**Main themes**

- Taxonomy : nomenclature and terminology ; main taxons (ascomycetes, zygomycetes, basidiomycetes and deuteromycetes)
- Life cycles of some selected species representative of main taxons
- Main groups of fungi
- In vitro culture
- Activity of decolouration by White Rot Fungi
- Introduction to identification of fungal species
- Physiology and secondary metabolites (emphasis put on mycotoxines)
- Bases of fungi sexuality