



SC

BIOL2131 Microbiologie

[50h+15h exercices] 8.5 credits

This course is taught in the 1st semester

**Teacher(s):** Claude Bragard, Jacques Mahillon  
**Language:** french  
**Level:** 2nd cycle course

### Aims

Establish the basis of our knowledge on viruses and bacterias and their relations with other organisms, in particular with animals and plants. Grasp the useful techniques to study these micro-organisms and the fight against their negative effects.

### Main themes

Bacteriology I: historical, bacteria structure, physiology and metabolism, diversity and classification of bacterias, microbial genetics, genetic engineering and biotechnology, animal-bacteria relations, microorganism control, microbial ecology, food and industrial microbiology.

Bacteriology II: Epidemiology (descriptive and analytical)

Bacteriology III: general characteristics of viruses, virus-plant and bacteria-plant relations, vaccination.

Virology : virus structure and viral cycle, classification, virus-host interactions (cellular transformation, latence, antigenic variation, cancer, oncogenes, HIV), manipulation and use of viruses, antiviral vaccination and antiviral agents, virus of Pray plants and non-conventional viruses.