



BIO1311 Microbiology and virology

[40h+15h exercises] 4 credits

This course is taught in the 1st semester

Teacher(s): Claude Bragard, Jacques Mahillon
Language: French
Level: First cycle

Aims

The main objectives of the Microbiology course is to establish the basic knowledge on microbes, mostly bacteria and viruses, and their relationships with other organisms, mainly plants and animals. Also included are the biochemical and molecular techniques and strategies used to study, but also to control, these microorganisms.

Main themes

The course is divided into two main sections corresponding to the type of microorganism studied. The Bacteriology part includes: the historical accounts of microbiology, the bacterial structure, physiology and metabolism, the diversity and classification of bacteria, the various ways to control microorganisms, microbial ecology, food and industrial microbiology and finally an introduction to descriptive epidemiology. In the Virology part, the following notions are explained and illustrated: structure of viruses and viral cycles, classification, interaction between host and virus (cellular transformation, latency, antigenic variation, cancer, oncogenes, HIV), use and manipulation of viruses, antiviral vaccination and antiviral agents, virus of plants, prions and non conventional viruses.

Other credits in programs

BIOL13BA	Troisième année de bachelier en sciences biologiques	(4 credits)	Mandatory
CHIM22	Deuxième licence en sciences chimiques	(4 credits)	
VETE13BA	Troisième année de bachelier en médecine vétérinaire	(4 credits)	Mandatory