

The banner features a blue background on the left with the text 'Faculty of Sciences' in white. The right side shows a close-up of a person's face wearing glasses, looking at a chalkboard. The chalkboard has some white chalk drawings and the word 'Fvert' written on it.

Faculty of Sciences

BIO1311 **Microbiology and virology**

[40h+15h exercises] 4 credits

This course is not taught in 2005-2006

This course is taught in the 1st semester

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.