

Discipline	Mycology and Plant pathology
Title of the course	Biodiversity of plant pathogenic and symbiotic microorganisms
Code	Code de l'UE (Nd)
Duration Date start Date end	– 6 ECTS (16 hours (8 x 2 h) lectures, 12 hours (6 x 2 h) tutorials, 16 hours (4 x 4 h) experimental work, 4 hours seminars by industrialists During spring semester (13 weeks)
Course coordinator and contact details	G�rard Barroso and Karine Dementhon gerard.barroso@u-bordeaux.fr karine.dementhon@u-bordeaux.fr
Other contact person	
Mode of delivery	– Teaching, in French language, includes in-class (group < 40 students) lectures (8 x 2 h), tutorials (6 x 2 h of case studies and English article analysis) and seminars (4h). Experimental work (4 x 4 h) in twos (and in small (< 20 students) groups)
Level	- Master 1
ECTS credit points	– 6 ECTS representing 160 hours = 48 contact hours (20 h lectures and seminars, 12 h tutorials, 16 h experimental work) and 3 h exam; 112 hours self-study (40 h private reading, 48 h exam preparation, 24 h tutorials work preparation)
Language	- French
Description¹	The aim of the course is to present the major groups of microorganisms (viruses, bacteria and fungi) involved in deleterious (plant pathogens) or symbiotic interactions with plants. At the end of this course, students will be able to understand the strategies used by microorganisms to interact with the plants and how this knowledge allow the development of innovative strategies to fight against (in the case of plant pathogens) or to use these microorganisms (in the case of symbiotic organisms).
Content	The teaching will show both the cell structures and strategies (adaptation of their life cycle) developed by microorganisms to allow deleterious or symbiotic interactions with plants. Teaching is based on lectures, case studies (resulting from the analysis of publications during tutorials) and experimental (laboratory) works showing current techniques of detection and molecular characterization of these microorganisms.
Methods	- Lectures, seminars, case studies, article analyses, experimental works

Assessment procedures	- Terminal examination constituted by a written synthesis test (3 h, coef. 0.6) Continuous assessment constituted by (i) a written report of the experimental works (coef. 0.2) and (ii) an oral presentation of case study or article analysis during tutorials (coef. 0.2)
Prerequisites	Science Bachelor academic level
Other information	

Please note that the number of places available may be limited for certain classes.