UCL Université catholique de Louvain

LBOE2168

2015-2016

Interactions plantes-environnement

3.0 credits	24.0 h + 12.0 h	1q

Teacher(s) :	Lutts Stanley ;
Language :	Français
Place of the course	Louvain-la-Neuve
Main themes :	The biological and economical importance of the abiotic and biotic environment will be shown in the introductory part. Attention will then be focused on the analysis of mechanisms of establishment, maintenance, termination and functioning of interactions between plants and microorganisms, both mutualistic symbionts and parasites. Examples of well-studied interactions will be used to demonstrate the general principles.We then go into detail about the main effects of abiotic stress factors (water stress, salt stress, extreme temperatures) and toxic minerals (aluminum and heavy metals, atmospheric pollution). The resistance strategies will be explained by accentuating from a cinetic viewpoint the mechanisms of perception of the stress agent, the activations of transduction signals and the expression of genes that are likely to contribute to the establishment of a resistance strategy.
Aims :	This course aims to show how, at the genetical, bichemical and physiological levels, a plant reacts to its environment, by establishing profitable or deleterious relationships with other organisms, especially microorganisms, or by developing restistance mechanisms to abiotic constraints. *The contribution of this Teaching Unit to the development and command of the skills and learning outcomes of the programme(s) can be accessed at the end of this sheet, in the section entitled "Programmes/courses offering this Teaching Unit".*
Other infos :	Precursorycourses Basic courses in biochemistry, cellular biology, botany (physiology and morphology) and genetics. Support Syllabus or book and review or research articles
Faculty or entity in charge:	BIOL

Programmes / formations proposant cette unité d'enseignement (UE)				
Intitulé du programme	Sigle	Credits	Prerequis	Acquis d'apprentissage
Master [60] in Biology	BIOL2M1	3	-	
Master [120] in Biology of Organisms and Ecology	BOE2M	3	-	
Master [120] in Agricultural Bioengineering	BIRA2M	3	-	