UCLouvain

lboe2168

2019

In view of the health context linked to the spread of the coronavirus, the methods of organisation and evaluation of the learning units could be adapted in different situations; these possible new methods have been - or will be - communicated by the teachers to the students.

3 credits	24.0 h + 12.0 h	Q1

Teacher(s)	Lutts Stanley ;Quinet Muriel ;
Language :	French
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	1 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".*
Evaluation methods	**Due to the COVID-19 crisis, the information in this section is particularly likely to change.** Oral exam for the theoretical part and written report for the practical part Participation in practical work, tutorials and exercises is mandatory and essential to validate the teaching unit. Any unjustified absence entails a penalty on the EU examination which may go as far as the cancellation of the examination mark for the relevant study year (0/20). In the event of repeated and even justified absences, the teacher may propose to the jury to oppose the registration for the EU examination in accordance with article 72 of the EGRR
Teaching methods	**Due to the COVID-19 crisis, the information in this section is particularly likely to change.** theoretical lectures in auditorium and practical work in greenhouses and in the field
Other infos	Prerequisite: plant biology, plant physiology, biochemistry, genetics
Faculty or entity in charge	BIOL

Programmes containing this learning unit (UE)				
Program title	Acronym	Credits	Prerequisite	Aims
Master [120] in Biology of Organisms and Ecology	BOE2M	3		
Master [120] in Agricultural Bioengineering	BIRA2M	3		
Master [60] in Biology	BIOL2M1	3		