

Environmental Plant Physiology

Code: 100822
ECTS Credits: 6

Degree	Type	Year	Semester
2500251 Environmental Biology	OB	2	2

Contact

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Use of languages

Principal working language: catalan (cat)
Some groups entirely in English: No
Some groups entirely in Catalan: Yes
Some groups entirely in Spanish: No

Prerequisites

It is necessary to have studied Plant Physiology.

Objectives and Contextualisation

The Environmental Plant Physiology is the second subject of a set of 3 that form the subject of Plant Physiology. It is compulsory and is taken in the second semester of the second year after having completed the compulsory subject of Plant Physiology.

The training objective of this subject is centered in the acquisition of competences within the framework of the theoretical and practical training of the student.

The Environmental Plant Physiology has the training objectives of acquiring knowledge at the organizational level of the organisms and their physiology in front of internal and external factors. Another aim is to identify the mechanisms of adaptation to the environment.

Content

Theory:

Concepts of stress and resistance
Perception and transduction of stimuli
Rhizospheric processes
Physiological responses to deficit and excess of water
Saline and ionic stress. Physiology of halophilic and metallophilic plants
Adaptations to calcareous soils and acid soils
Physiological responses to the thermal and light environment
Physiological responses to the mechanical and chemical effects of the atmosphere
Practical applications of the knowledge of Environmental Plant Physiology

Lab practices:

Influence of light on plant growth
Effect of wind on the degree of stomatal opening
Influence of physical and chemical factors on the permeability of cell membranes
Influence of suboptimal phosphorus levels on acid phosphatase activity

