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Plant ecophysiology (3BL2306)

Filières concernées	Nombre d'heures	Validation	Crédits ECTS
Master en biologie	Cours: 28 pg	Voir ci-dessous	3

ph=période hebdomadaire, pg=période globale, j=jour, dj=demi-jour, h=heure, min=minute

Période d'enseignement:

- Semestre Printemps

Equipe enseignante

Martina Legris

Contenu

This course examines how plants respond to their physical and chemical environments. The course synthesizes current mechanistic understanding of key processes, including photosynthesis, respiration, water relations, nutrition, and responses to abiotic stress, and presents approaches for studying plant physiology across levels of biological organization. Emphasis is placed on recent advances driven by the integration of biochemistry, molecular biology, plant physiology, ecology, and phenotyping, particularly in the context of rapid global environmental change.

Forme de l'évaluation

Continuous Assessment during the course (CA graded):

- 1- Students are expected to actively participate during lessons and exercises.
- 2- At the end of the course, students will choose a research question related to the topics of the course and:
 - a. Write a text about the state of the art on the topic, putting the research question in context.
 - b. Give a short presentation explaining why they chose this research question and briefly explaining the methods that they would use to answer it.

Modalités de rattrapage

If the final mark is insufficient and results in a failure, the student will have to design a research project on a topic suggested by the professor and write a summary including the state-of-the-art, aims and proposed methods. The written summary should be handed in two weeks before the official start of the exam session for which a second attempt is made. In addition, the student will pass an oral exam of 30 minutes scheduled during the exam session. A failure to hand in the report or an unjustified absence from the oral exam constitutes a second and definite failure of the course.

Documentation

Slides, articles and other documentation will be made available through Moodle during the course.

Pré-requis

Basic knowledge of plant physiology and development (bachelor level).

Forme de l'enseignement

This course includes lectures, interactive class activities and discussion of scientific articles.

Objectifs d'apprentissage

Au terme de la formation l'étudiant-e doit être capable de :

- Conceptualise a research plan on a topic related to plant ecophysiology
- Write a grant proposal
- Explain the mechanisms underlying the effects of environmental factors on plant physiology
- Practice scientific literature search
- Analyse the content of research articles
- Discuss current topics in plant ecophysiology

Compétences transférables

- Summarize knowledge

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- Justify the choice of a scientific question
- Present effectively to peers
- Translate theoretical knowledge into practice