Course Specifications

Valid as from the academic year 2019-2020

Course

Plant Physiology (I700212)

Lecturers in academic year 2019-2020

Haesaert, Geert
LA21 lecturer-in-charge

Audenaert, Kris
LA21 co-lecturer

Course offerings and teaching methods in academic year 2019-2020

A (semester 1)
Dutch

lecture 24.0 h
practicum 12.0 h
self-reliant study activities 12.0 h

Offered in the following programmes in 2019-2020

Bachelor of Science in Bioscience Engineering Technology

5 A

Linking Course Master of Science in Bioscience Engineering Technology: Agriculture and Horticulture (main subject Horticulture)

5 A

Linking Course Master of Science in Bioscience Engineering Technology: Agriculture and Horticulture (main subject Plant and Animal Production)

5 A

Linking Course Master of Science in Bioscience Engineering Technology: Agriculture and Horticulture (main subject Tropical Plant Production)

5 A

Teaching languages

Dutch

Keywords

Plant physiology, photosynthesis, respiration, water husbandry, morphogenesis, mineral nutrients

Position of the course

The course aims to study the basic principles of plant physiology of spermatophyte plants. This knowledge is essential to understand the link between growing conditions and the yield of crops on the one hand and the quality of plant products on the other hand.

Contents

1. Membrane structure and membrane transport
2. Energy metabolism (photosynthesis and respiration)
3. Water husbandry
4. Floeem transport
5. Mineral nutrition
6. Morphogenesis and plant hormones

Initial competences

Course of plant physiology is based on some final competences of cell biology and morphology/anatomy of spermatophyte plants.

Final competences

1. To be able to understand the most important plants physiological processes so a link can be made between physiology and plant grow and development.
2. To be able to explore the physiological knowledge for plant production, plantbreeding, crop protection, e.g.
3. To be able to make a link between the quality of plant products and growing

(Approved)
conditions based on the attained physiological knowledge

4 To be able to use laboratory equipment and infrastructure for carrying out physiological tests

Conditions for credit contract
Access to this course unit via a credit contract is determined after successful competences assessment

Conditions for exam contract
This course unit cannot be taken via an exam contract

Teaching methods
Lecture, practicum, self-reliant study activities

Extra information on the teaching methods
The courses are illustrated with slides
Practica: exercises under supervision on effect of plant hormones and plant nutrition
Students must set up in small groups simple physiological experiments

Learning materials and price
Syllabus and practicum guide is available

References

Course content-related study coaching
study progress tests during practicum
Frequent possibilities for asking questions

Evaluation methods
day-of-term evaluation and continuous assessment

Examination methods in case of periodic evaluation during the first examination period
Written examination

Examination methods in case of periodic evaluation during the second examination period
Written examination

Examination methods in case of permanent evaluation
Written examination, report

Possibilities of retake in case of permanent evaluation
examination during the second examination period is possible

Extra information on the examination methods
Theory: written examination with a combination of multiple choice - and open questions
Exercises: Reports, permanently assignment, herbarium and test (can be done again in second examination period)

Calculation of the examination mark
Theory: 66,7 %
Excercises: 33,3 %

(Approved)