

Course size (nominal values; actual values may depend on programme)

Credits 6.0 Study time 180 h Contact hrs 45.0 h

Course offerings and teaching methods in academic year 2018-2019

A (semester 1) Dutch lecture 45.0 h

Lecturers in academic year 2018-2019

Verleyen, Elie WE11 lecturer-in-charge
Sabbe, Koen WE11 co-lecturer

Offered in the following programmes in 2018-2019

[Bachelor of Science in Pharmaceutical Sciences](#) crdts 6 offering A

Teaching languages

Dutch

Keywords

Biodiversity, histology, anatomy, morphology, life cycles, and evolution of plants in a broad sense (algae and fungi included)

Position of the course

Plants in a large sense form a very diverse group of organisms that developed in different places in the evolutionary life tree. The course aims to provide insight into this evolution and diversity. This diversity is discussed at different levels: cellular and histologically-anatomical, morphological and adaptive-evolutionary. The great divergence of life cycles and mechanisms for sexual reproduction is highlighted.

Contents

PART I: MORPHOLOGY & SYSTEMATICS:

- Introduction: What are plants, history of classification, nomenclature
- Introduction to the algae: Red algae, Brown algae, Green algae;
- Introduction to mycology: Fungi: Zygomycota, Ascomycota, Basidiomycota
- Morphology & Anatomy of Flower Plants: basic concepts
- Overview of the land plants: mosses, ferns & microphyll spore plants, seed plants, gymnosperms, flowering plants

PART II: ANATOMY & MICROSCOPIC IDENTIFICATION

- Cytology
- Histology
- Anatomy of the root, stem and leaves

Initial competences

Final competences of secondary school or competences corresponding herewith

Final competences

- 1 To be able to recognize the different types of plant cell, tissues and organs (important for the 2nd Bachelor course 'Pharmacognosy and Phytochemistry').
- 2 To be able to describe the complexity of life cycles of plants, Fungi and algae.
- 3 To be able to describe and compare the biodiversity of plants, Fungi and algae.
- 4 To use the correct scientific name of some commonly used pharmaceutical plants.

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

Extra information on the teaching methods

Lectures illustrated using an extensive powerpoint presentation.

Learning materials and price

Course notes are sold at the beginning of the first lesson (estimated cost: €15)

References

We recommend, although not obligatory, to buy a well illustrated English handbook.
b.v. Raven P.H. & Eichorn S.E. 2012. Biology of plants. Freeman & Co, 900 pp.

Course content-related study coaching

Students can ask questions at the end of each class. Alternatively, they can make a personal appointment. Living material for study is available in the botanical garden.

Evaluation methods

end-of-term evaluation

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

Written examination with multiple choice questions, written examination

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

Written examination with multiple choice questions, written examination

Examination methods in case of permanent evaluation

Possibilities of retake in case of permanent evaluation

not applicable

Extra information on the examination methods

Theory: periodical exam with multiple choice questions, in combination with completing botanical plates of anatomical and morphological structures, and life cycles

Calculation of the examination mark

multiple choice questions: 75% of the final mark
completing botanical plates: 25% of the final mark