

Biodiversity of Plants s.L. (sensu Linnaeo) (C003481)

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

Credits 5.0 **Study time 138 h**

Course offerings and teaching methods in academic year 2023-2024

A (semester 1)	Dutch	Gent	lecture
			seminar
			practical

Lecturers in academic year 2023-2024

Verbeken, Annemieke	WE11	lecturer-in-charge
Beeckman, Tom	WE09	co-lecturer

Offered in the following programmes in 2023-2024

	crdts	offering
Bachelor of Arts in Philosophy	5	A
Bachelor of Science in Biochemistry and Biotechnology	5	A

Teaching languages

Dutch

Keywords

Biodiversity of plants, prokaryotes, protists, algae, land plants, fungi, introduction to morphological and anatomical diversity in flowering plants

Position of the course

The student will receive a concise survey of the biodiversity of the mentioned groups, with more attention to some particular & important taxa in these groups. The extended practical exercises and guided tours in the botanical garden will allow to show many taxa as real objects and to work hands-on with these plants

Contents

Introduction: definition of landplants, history of the systematics, taxonomy, ethnobotany

Morphology & anatomy of flowering plants

Evolution of Landplants : mosses, ferns and lycophytes, spermatophytes, gymnosperms, angiosperms

Fungi s.l.: Slime moulds, Pseudofungi, Zygomycota, Ascomycota, Basidiomycota

Contact hours: Verbeken: 18 A, 40 B en Beeckman: 2 A en 8 B

Initial competences

No specific knowledge is needed. Basic knowledge of botany is of course a good start.

Final competences

- 1 The student has good knowledge of life processes and life cycles of plants in a very broad sense. The student has good knowledge of the systematic position of model organisms.
- 2 The student has knowledge of the necessary botanical terminology to communicate about organisms on a scientific level.
- 3 The student is aware of the importance of model systems and model organisms within Biochemistry and Biotechnology, can situate these in the Tree of Life, and has the necessary evolutionary insights.
- 4 The student has insights in the way flowering plants (and by extension other landplants) are built, and this at all different levels: cell (cytology), tissues (histology), organs (anatomy) and morphology.

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

Seminar, Lecture, Practical

Extra information on the teaching methods

Exercises: practical classes with multimedia-demo, guided tours in the botanical garden

Learning materials and price

Syllabus and notes for the practical courses are available, as well as ppt-presentations. The botanical garden is open to the public daily and for free, and is situated next to the teaching building

Practical courses: fresh material and microscopical slides.

Price: about 30 euro.

References

Course content-related study coaching

Practical courses, and on-line available : list of terminology, list with important parts of the course, examples of examinations.

Assessment moments

end-of-term and continuous assessment

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

Oral assessment, Written assessment with open-ended questions

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

Oral assessment, Written assessment with open-ended questions

Examination methods in case of permanent assessment

Written assessment

Possibilities of retake in case of permanent assessment

examination during the second examination period is possible

Extra information on the examination methods

Non-periodic evaluation: practical exam at the end of the practical series, all practica are compulsory and the evaluation of the practica counts for 3/20 of the practical exam. Only those who participated in all practica can take the practical exam. This also applies to the practical exam in the second session.

Periodic evaluation: exam theory, written with open questions, afterwards the same questions are discussed orally, this with each of the teachers.

Exam structure and contents are discussed at the end of the courses in a separate session with both teachers and assistants.

Calculation of the examination mark

theoretical exam: 3/5 for the part of prof. Verbeken, 1/5 for the part of prof. Beeckman; practical exam: 1/5

The student has to pass for the three separate parts (theoretical part Verbeken, theoretical part Beeckman, practical exam) in order to pass for the complete exam.