GHENT UNIVERSITY

Course Specifications

From the academic year 2021-2022 up to and including the academic year

Zoology: Morphology and Systematics (I700200)

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

Credits 4.0 **Study time 120 h** **Contact hrs** 48.0h

Course offerings and teaching methods in academic year 2022-2023

A (semester 1)	Dutch	Gent	practicum	16.0h
			seminar: coached exercises	2.0h
			online lecture	24.0h

Lecturers in academic year 2022-2023

Ingels, Katrijn	LA22	staff member
Michiels, Joris	LA22	lecturer-in-charge

Offered in the following programmes in 2022-2023	**crdts**	**offering**
Bachelor of Science in Bioscience Engineering Technology	4	A

Teaching languages

Dutch

Keywords

Zoology, taxonomy, embryology, growth of animals, functions of animals, protozoa, invertebrates, vertebrates

Position of the course

Animals have diverse relations to humans, amongst them production of food, companion animals, plant pests, parasites for human and animal. The course focuses on gaining insights in the huge diversity of animal organisms and the importance of some organsims for the program. An elaborate knowledge of zoology, systematics of the animal kingdom and animal growth is indispensable in the bachelor program.

Contents

The learning content of the course consists of:

- Importance and principles of classification
- Concept of species
- Terms such as symmetrie, segmentation, polymorfism, direct and indirect development
- Embryology of the animal, pre- en postnatal growth and applications
- Regnum Protista, Subregnum Protozoa
- Regnum Animalia
  - Phylum Porifera (sponges)
  - Phylum Cnidaria (cnidarians)
  - Phylum Ctenophora (combjellies)
  - Phylum Plathelminthes (flatworms)
  - Phylum Nematoda (nematodes)
  - Phylum Rotifera (rotifers)
  - Phylum Mollusca (molluscs)
  - Phylum Annelida (annelids)
  - Phylum Onychophora
  - Phylum Arthropoda (arthropods)
  - Phylum Bryozoa (moss animals)

Phylum Echinodermata (echinoderms)
Phylum Chordata (chordates)
Subfylum Urochordata or Tunicata (tunicates)
Subfylum Cephalochordata
Subfylum Euchordata or vertebrates (vertebrates)

A brief introduction a typical characteristics of the animal plan for each taxonomic group is given, and relevant examples with life cycles are addressed. Particular attention is directed to taxonomie of insect, birds and mammals.
Students are offered theoretical exercises via the electronic learning platform in order to process the lecture material and gain necessary insights. In the practical exercises examplatory organismes are studied, both morpholgy and anatomy.

Initial competences

Basic principles of zoology such as systematic, cell and tissue anatomy, physiology and biochemistry is recommended.

Final competences

1 He/she can situate the organisms of the animal kingdom in an independent way in the complex system of the animal kingdom and can indicate a number of important and relevant characterics

2 Able to elaborate on the life cycles and importance of some examplatory organisms with high importance for production of plant and animal and human health

3 Capable of addressing morfological and anatomical characteristics of animals during dissection in relation to the diversity of animals

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

Practicum, Online lecture, Lecture, Seminar: coached exercises

Learning materials and price

Course notes and presentations "Zoology: morphology and systematics"
Theoretical exercises on electronic learning platform with interaction
Videos and animations on electronic learning platform
Notes exercises "Zoology: morphology and systematics"

References

Hickman C.P., Roberts L.S., Keen S.L., Eisenhour D.J., Larson A. & l'Anson H. (2017). Integrated principles of zoology. 17th Ed., McGraw-Hill Education, USA, 913 p.
Dorit R.L., Walker W.F. & Barnes R.D. (1991). Zoology. Saunders College Publishing, Philadelphia, USA, 1009 p.
URL references are included in the course notes.

Course content-related study coaching

Possibility to ask questions after appointment. One hour consultation on a predetermined moment in the week is scheduled.
Rehearsal lesson
Possibility to consult books and journals available at the department.

Assessment moments

end-of-term and continuous assessment

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

Written examination with multiple choice questions, Written examination with open questions

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

Written examination with multiple choice questions, Written examination with open questions

Examination methods in case of permanent assessment

Report, Written examination, Job performance assessment

Possibilities of retake in case of permanent assessment

examination during the second examination period is not possible

Extra information on the examination methods

Theory: written
Exercises: permanent evaluation by report and activity during exercise,
intermittent and final testing

Calculation of the examination mark

Theory: 70%
Exercises: 30%