

# Course Specifications

Valid in the academic year 2024-2025

# Zoology: Morphology and Systematics (1700200)

Course size	(nominal values; actual values may depend on programme)				
Credits 4.0	Study time 120 h				
Course offerings and teaching methods in academic year 2024-2025					
A (semester 1)	Dutch	Gent	practical		
			seminar		
			lecture		
Lecturers in academic year 2024-2025					
Ovyn, Anneke			LA22	staff member	
Semmouri, Ilias		LA22 lecturer-in-charge			
Van Hecke, Thoma	as		LA22	co-lecturer	
Offered in the following programmes in 2024-2025				crdts	offering
Bachelor of Science in Bioscience Engineering Technology				4	А

# 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 Hemichordata Phylum Chordata (chordates) Subfylum Urochordata or Tunicata (tunicates) Subfylum Cephalochordata Subfylum Euchordata (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**

Seminar, Lecture, Practical

# Extra information on the teaching methods

The theory classes are the basis for obtaining theoretical knowledge. Exercises on an electronic learning platform are offered to process the learning material in an active and critical manner and to test the extent of competence acquisition. The practicals must be prepared via short web lectures and other digital material, followed by a short test during the exercise.

#### Study material

Type: Syllabus

Name: Dierkunde: morfologie en systematiek Indicative price: Free or paid by faculty Optional: yes Language : Dutch Available on Ufora : Yes Online Available : No Available in the Library : No Available through Student Association : No Additional information: Optional

# Type: Slides

Name: Dierkunde: morfologie en systematiek Indicative price: Free or paid by faculty Optional: no Language : Dutch Available on Ufora : Yes Online Available : No Available in the Library : No Available through Student Association : No

# 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 assessment with multiple-choice questions, Written assessment with open-ended questions

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

Written assessment with multiple-choice questions, Written assessment with open-ended questions

# Examination methods in case of permanent assessment

Professional practice, Written assessment, Assignment

# 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: 75% Exercises: 25%

The student must participate in all practicals, seminars and exams in order to pass this course, with regard to both periodical and non-periodical evaluations. The assessment and determination of the final quotation is done via the mathematical average according to the assigned coefficients. If one does not participate in the evaluation of one or more components, or one obtains less than 8/20 (not completed) on one or more components, one can no longer pass the course. If the final score calculation were to be 10 (or more) out of 20, this will be reduced to 9/20.