

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

Credits 3.0 Study time 75 h Contact hrs 30.0 h

Course offerings and teaching methods in academic year 2019-2020

A (semester 1)	English	practicum	9.0 h
		group work	1.0 h
		excursion	4.0 h
		demonstration	1.0 h
		lecture	15.0 h

Lecturers in academic year 2019-2020

Radwanska, Magdalena KR01 lecturer-in-charge

Offered in the following programmes in 2019-2020

	crdts	offering
<a href="#">Bachelor of Science in Environmental Technology</a>	3	A
<a href="#">Bachelor of Science in Food Technology</a>	3	A
<a href="#">Bachelor of Science in Molecular Biotechnology</a>	3	A
<a href="#">Joint Section Bachelor of Science in Environmental Technology, Food Technology and Molecular Biotechnology</a>	3	A

Teaching languages

English

Keywords

Animal Kingdom, Evolution and Biodiversity of animals, Taxonomy, Anatomy, Physiology

Position of the course

The Animal Biology course constitutes a basic course in biology with emphasis on biodiversity and adaptations. The course gives an introduction to the taxonomy, morphology and anatomy of animals with a strong emphasis on biological evolution, with elements of ecology. Typical features of the taxa are discussed as well as underlying relationship in anatomy. The course includes an introduction to the underlying scientific principles of human evolution.

Contents

1. Animal Diversity, Systematics, and Ecology.
2. Comparative Animal Anatomy and Physiology.
3. Transition to Multicellularity: Porifera and Diploblastic Cnidaria and Ctenophora.
4. Triploblastic Protostomia (Lophotrochozoa): Platyhelminthes (Flat Worms), Rotifera, Nemertea (Ribbon Worms), Mollusca, Annelida (Segmented Worms).
5. Triploblastic Protostomia (Ecdysozoa): Nematoda (Round Worms), Arthropoda.
6. Triploblastic Deuterostomia: Echinodermata, Chordata (Osteichthyes, Chondrichthyes, Amphibia, Reptilia, Aves, Mammalia).
7. Human evolution.

Initial competences

Knowledge and understanding of the structure and function of the genetic material and proteins are required as well as cellular and microbial function. These competences are acquired in the courses such as General Biology and Microbiology.

Final competences

- 1 Students have a basic understanding of the Animal Kingdom and basic features of the various taxa that constitute it.

The student will:

- understand the basic taxonomy, morphology and anatomy of animals;
- 2 - know the basic principles of various life cycles and ecology;
- 3 - be able to recognize actual living organisms and place them in the taxonomy;
- 4 - be aware of public debates surrounding genetic analysis of human evolution and evolution in general;
- 5 - be aware of the complementarity of biochemistry, genetics, microbiology, molecular biology, and biological evolution.

#### 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

Demonstration, excursion, group work, lecture, practicum

#### Learning materials and price

Learning material is provided as PowerPoint presentations together with a dedicated booklet containing protocols and background information supporting practical courses. Movies are used to explain basic principles underlying animal diversity and adaptations. All this material is available on Minerva. A textbook on the integrated principles of Zoology is followed with respect to the content. The course includes a field excursion to the local ecology park.

#### References

Integrated Principles of Zoology, and Hickman et al. McGraw-Hill International Education 16th Edition

#### Course content-related study coaching

Practical courses are designed to directly support the principles outlined in the lectures. The latter contain wrap-up and feedback sessions. This, in turn facilitates study coaching.

#### Evaluation methods

end-of-term evaluation and continuous assessment

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

Written examination with open questions, report

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

Written examination with open questions, report

#### Examination methods in case of permanent evaluation

Written examination with open questions, report

#### Possibilities of retake in case of permanent evaluation

examination during the second examination period is possible

#### Extra information on the examination methods

Participation in the practical courses is mandatory. The final exam will have open questions that directly relate to the lectures and experiments performed during practical courses.

#### Calculation of the examination mark

Written examination with open questions related to the lecture course material - 80%  
Mid-term written examination will test study progress - 10%  
Practical course report - 10%

#### Facilities for Working Students

Study rooms and practical course rooms are available.