



LUND
UNIVERSITY

Faculty of Science

BIOC11, Biology: Human and Animal Physiology, 15 credits

Biologi: Human- och zoofysiologi, 15 högskolepoäng

First Cycle / Grundnivå

Details of approval

The syllabus was approved by Study programmes board, Faculty of Science on 2019-02-05 to be valid from 2019-02-05, autumn semester 2019.

General Information

The course is a compulsory first-cycle course for a Degree of Bachelor of Science in Biology.

Language of instruction: Swedish

Main field of studies

Biology

Molecular Biology

Depth of study relative to the degree requirements

G1F, First cycle, has less than 60 credits in first-cycle course/s as entry requirements

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Learning outcomes

The overall aim of the course is that the student shall be able to describe how the morphology of the body, account for important physiological processes and how these are regulated as well as make comparisons between different animal groups and relate physiological adaptations to different environments.

Knowledge and understanding

On completion of the course, the student should be able to:

- describe body morphology and function for humans and different animal groups
- account for physiological principles on cellular to organism level, e.g. regarding neural physiology, sensory physiology and muscle physiology

- describe different physiological processes and explain how these are regulated, including motor functions, endocrinology, circulation, respiration, immunology, excretion, digestion, metabolism and reproduction
- account for how physiological processes are influenced by body temperature
- account for how animals are physiologically adapted to different environments

Competence and skills

On completion of the course, the student should be able to:

- carry out basic physiological laboratory tasks and exercises
- constructively cooperate in a group and discuss scientific issues
- apply his/her knowledge to analyse physiological problems
- compile scientific literature and make presentations orally and in writing

Judgement and approach

On completion of the course, the student should be able to:

- apply a scientific view to analyse physiologically related problems
- independently acquire the knowledge that is needed to carry out a physiological project
- critically review the work of others as well as carry out judicious opposition
- engage in a discussion about ethical and social aspects on the use of laboratory animals

Course content

The course treat general principles structure and function of organs and tissues as well as physiological control mechanisms. The organ systems of humans and other animals' are studied and compared from a physiological perspective. Special consideration is also taken to evolutionary adaptations, including adaptations to environmental factors as energy supply, temperature, levels of oxygen and carbon dioxide as well as water availability and osmolarity The course also includes ethical aspects on use of laboratory animals and a physiologically oriented project.

Course design

The teaching consists of lectures, teacher-supervised group studies, laboratory sessions and project work. The group studies constitute an essential part of the course. Participation in group studies, laboratory sessions and projects as well as associated components are compulsory.

Assessment

The examination takes place in writing through written examinations during the course and through compulsory components. For students who have failed at regular examination, an additional examination in close connection to this is offered.

The examiner, in consultation with Disability Support Services, may deviate from the regular form of examination in order to provide a permanently disabled student with a form of examination equivalent to that of a student without a disability.

Subcourses that are part of this course can be found in an appendix at the end of this document.

Grades

Marking scale: Fail, Pass, Pass with distinction.

For a grade of Pass on the whole course, the student must have passed the written examinations and all compulsory parts.

Grades on written examinations is Fail, Pass, Pass with distinction. Grades on laboratory sessions and projects are Fail and Pass.

The final grade is determined by the aggregated results of the written exams.

Entry requirements

To be admitted to the course, students must have 45 credits in Natural science studies including knowledge equivalent to BIOA10 Cell and microbiology 15 credits and BIOA11 Genetics and evolution 15 credits.

Further information

The course may not be included in a degree together with BIOC01 Human Physiology 15 credits or BIOB09 Zoophysiology 7.5 credits.

Subcourses in BIOC11, Biology: Human and Animal Physiology

Applies from H19

- 1901 Theory part 1, 6,0 hp
Grading scale: Fail, Pass, Pass with distinction
- 1902 Theory part 2, 6,0 hp
Grading scale: Fail, Pass, Pass with distinction
- 1903 Laboratory and project work, 3,0 hp
Grading scale: Fail, Pass