



Faculty of Health, Science and Technology
Biology

Syllabus

Biological methods and analyses

Course Code:	BIG002
Course Title:	Biological methods and analyses <i>Biologiska metoder och analyser</i>
Credits:	15
Degree Level:	Undergraduate level
Progressive Specialisation:	First cycle, has only upper-secondary level entry requirements (G1N)

Major Field of Study:
BIA (Biology)

Course Approval

The syllabus was approved by the Faculty of Health, Science and Technology 2023-01-30, and is valid from the Autumn semester 2023 at Karlstad University.

Prerequisites

General admission requirements, plus upper secondary level Mathematics 3b or Mathematics 3c, Biology 1, and Chemistry 1, or equivalent

Learning Outcomes

Upon completion of the course, students should be able to:

- use basic biological methods in the laboratory and in the field,
- give an account of basic knowledge of the scientific method and experimental design in biology,
- use basic statistical methods in biology,
- use and interpret information from different statistical analyses, and
- compile and analyse biological data and present a text in standard scientific format.

Content

The course deals with common methods for biological field studies and basic laboratory techniques, and information retrieval in the field of biology. The course covers descriptive statistics, basic probability theory, experimental design, hypothesis testing and basic parametric and non-parametric analysis methods. In addition, scientific writing and presentation techniques are included. Instruction is in the form of lectures, laboratory sessions, excursions and report writing.

Reading List

See separate document.

Examination

Assessment is in the form of individual hand-in assignments, a take-home exam, and participation in and presentations of laboratory and field tasks.

If students have a decision from Karlstad University entitling them to Targeted Study Support due to a documented disability, the examiner has the right to give such students an adapted examination or to examine them in a different manner.

Grades

One of the grades Distinction (VG), Pass (G), or Fail (U) is awarded in the examination of the course.

Quality Assurance

Follow-up relating to learning conditions and goal-fulfilment takes place both during and upon completion of the course in order to ensure continuous improvement. Course evaluation is partly based on student views and experiences obtained in accordance with current regulations and partly on other data and documentation. Students will be informed of the result of the evaluation and of any measures to be taken.

Course Certificate

A course certificate will be provided upon request.

Additional information

The local regulations for studies at the Bachelor and Master levels at Karlstad University stipulate the obligations and rights of students and staff.

Students have to meet any excursion costs.