



Faculty of Health, Science and Technology
Biology

Syllabus

Freshwater Biology

Course Code:	BIGC13
Course Title:	Freshwater Biology <i>Sötvattensbiologi</i>
Credits:	15
Degree Level:	Undergraduate level
Progressive Specialisation:	First cycle, has at least 60 credits in first-cycle course/s as entry requirements (G2F)

Major Field of Study:
BIA (Biology)

Course Approval

The syllabus was approved by the Faculty of Health, Science and Technology 2018-01-31, and is valid from the Autumn semester 2018 at Karlstad University.

Prerequisites

Biology 60 ECTS cr with 45 ECTS credits completed, including Ecology 12 ECTS cr, or equivalent.

Learning Outcomes

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

- give an account of different habitats and organism communities in freshwater,
- give an account of theoretical principles and concepts in the field of ecology at different levels,
- give an account of the interaction between organisms and the physical environment in freshwater,
- collect, analyse, process, compile and evaluate abiotic and biotic field data from freshwater environments,
- use simple statistics,
- use simple ecological hypotheses and test these through comparative studies, critically analyse collected data and present the results in a scientific report,
- assess and discuss science articles on freshwater biology and how results in the natural sciences are presented and communicated.

Content

The theoretical component of the course is based on freshwater habitat and its organisms. Instruction is in the form of lectures and/or seminars where students are introduced to the theoretical basis and concepts of ecology at different levels, and of the interaction between organisms and the physical environment. The course also consists of a practical and methodologically oriented component where students through excursions and laboratory exercises become familiar with sample methods and analysing and processing biological field material. Also included is a project in which the students, on the basis of the collected samples, develop skills in formulating simple hypotheses, testing them and analysing the collected data statistically. The process is documented in a written academic report

which is discussed together with research articles in a seminar.

The course includes a mandatory multi-day excursion and laboratory field study and a mandatory seminar meeting at Karlstad University.

Reading List

See separate document.

Examination

Assessment of theoretical components is based on a written exam, an individual hand-in assignment, seminar performance, and quizzes

Assessment of practical components such as sampling and species identification is based on an individual test.

Excursion and laboratory participation is part of the assessment.

Assessment of competence and skills in approaching and evaluating collected data scientifically is based on individual or group reports and seminar defence.

Grades

One of the grades Fail (U), Pass (G), or Distinction (VG) 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.