Reg No: BIGC13/20232

Faculty of Health, Science and Technology
Biology

Syllabus

Freshwater Biology

Course Code:	BIGC13
Course Title:	Freshwater Biology *Sötvattensbiologi*
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 2023-01-30, and is valid from the Autumn semester 2023 at Karlstad University.

Prerequisites
Registered for 60 ECTS credits in Biology with 45 ECTS credits completed, including Ecology, 12 ECTS cr, or equivalent

Learning Outcomes
Upon completion of the course, students should be able to:
1. give an account of different habitats, organism communities, interaction between organisms and the physical environment in freshwater, and the theoretical principles and concepts of the field of ecology at different levels,
2. give an account of a suitable setup for a study of abiotic and biotic variables in aquatic environments, including analysis, compilation, and evaluation, and reflect critically upon the methodology,
3. use basic statistics and basic ecological hypotheses and test these through comparative studies, critically analyse collected data, and present the results in writing in a scientific

report, and
4. assess and discuss research articles on freshwater biology and how results in the natural sciences are presented and communicated.

Content
The theoretical component of the course is focused on the 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, the interaction between organisms and the physical environment, aquatic sampling methods, analysis and processing. Also included is a project in which the students, on the basis of collected samples, develop skills in formulating simple hypotheses, testing them, and analysing the collected data statistically. This is documented in a written scientific report which is discussed together with research articles in a seminar.

Reading List
See separate document.

Examination
Learning outcomes 1, 2, and 4 are assessed based on an individual written exam, an individual hand-in assignment, and quizzes.
Learning outcomes 3 and 4 are assessed based on a written report, completed in small groups, presented and defended orally in a seminar.

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 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.