UNIVERSITY OF SKÖVDE

TRANSLATION FROM SWEDISH

**COURSE SYLLABUS**

# Introduction to Bioinformatics G1N

**7.5 credits**

**Course code:** BI123G
**Version number:** 3
**Valid from:** 1 January 2026
**Ratified by:** Curriculum Committee for Bioscience
**Date of ratification:** 14 August 2025

## 1. General information about the course

The course is provided by the University of Skövde and is named Introduction to Bioinformatics G1N (Introduktion till bioinformatik G1N). It comprises 7.5 credits and is a first-cycle course. The level of progression is G1N.

The course is a part of the main field of study in Bioinformatics. The disciplinary domain of the course is Natural Sciences.

## 2. Entry requirements

General entry requirements.
Additional requirements: Mathematics 2a or 2b or 2c, Science studies 2
Or:
Mathematics level 2a or level 2b or level 2c, Science studies level 2.

## 3. Course content

The course introduces key concepts in bioinformatics, fundamental problem areas and current applications. Students will gain knowledge of common types of biological data, how they are generated through experimental methods and how they are collected for analysis. The course also covers the structure and use of public bioinformatics databases for retrieving and interpreting relevant information. In addition, students will gain practical experience in using basic methods and tools to process, analyze and compile biological data. Through both theoretical and practical components, the course offers a comprehensive understanding of the role of bioinformatics in modern biology and medicine.

## 4. Objectives

After completing the course, the student should be able to:

- explain key concepts, fundamental challenges and current applications in bioinformatics,
- describe the most common types of biological data relevant to bioinformatics, including how they are generated and collected,
- use major public databases relevant to bioinformatics and describe their structure and areas of application, and
- apply basic methods and tools to process, analyze and compile biological data relevant to bioinformatics.

## 5. Examination

The course is graded A (Excellent), B (Very good), C (Good), D (Satisfactory), E (Sufficient) or F (Fail).

The grade for the entire course is only issued when all examination components have been passed and is determined by the grade for the Written Exam.

The examinations of the course consist of the following modes of assessment:

- **Written assignment**
  1 credit, grades: G/U
- **Supervised written examination**
  6.5 credits, grades: A/B/C/D/E/F (determines the final grade)

Students with a permanent disability who have been approved for directed educational support may be offered adapted modes of assessment.

## 6. Types of instruction and language of instruction

The teaching consists of lectures and exercises, including supervised computer-based laboratory sessions.

Depending on the study period, the language of instruction may be Swedish or English. Even if the teaching is conducted in Swedish, some English may still occur.

## 7. Course literature and other educational materials

Compendium material, University of Skövde.

Scientific articles and other material may also be included. These are separately stated on a list provided by the Course Coordinator.

## 8. Student influence

Student influence in the course is ensured by means of course evaluation. The students are informed about the results of the evaluation and potential measures that have been taken or are planned, based on the course evaluation.

## 9. Additional information

Further information about the course, as well as national and local governing documents for higher education, is available on the website of the University of Skövde.