UNIVERSITY OF SKÖVDE

TRANSLATION FROM SWEDISH

COURSE SYLLABUS

Current Research in Systems Biology and Bioinformatics A1F

7.5 credits

Course code: SY767A
Version number: 7
Valid from: 1 July 2026
Ratified by: Curriculum Committee for Bioscience
Date of ratification: 25 September 2025

1. General information about the course

The course is provided by the University of Skövde and is named Current Research in Systems Biology and Bioinformatics A1F (Aktuell forskning inom systembiologi och bioinformatik A1F). It comprises 7.5 credits and is a second-cycle course. The level of progression is A1F.

The course is a part of the main field of study in Systems Biology. It can also be a part of the main field of study in Bioinformatics. The disciplinary domain of the course is Natural Sciences.

2. Entry requirements

The course has the following entry requirements: attended BI760A Bioinformatics Concepts and Methods A1N (or the equivalent).

An additional requirement is proof of skills in English equivalent of studies at upper secondary level in Sweden, known as the Swedish course English 6 or English level 2. This is normally demonstrated by means of an internationally recognized test, e.g. IELTS or TOEFL or the equivalent.

3. Course content

The course focuses on the scientific process, with an emphasis on current research in systems biology and bioinformatics. Critical thinking and examination of scientific texts are practiced through the study of research articles and in seminars. Ethical issues in relevant research areas are also discussed. Through seminars, exercises and assignments the ability to formulate and analyse research problems is practiced, both orally and in writing.

4. Objectives

After completed course the student should be able to:

- extensively discuss the hallmarks of the scientific method,
- critically examine research articles in systems biology and bioinformatics, with special focus on the scientific method,
- in an efficient way, search and find relevant articles for a given research problem in systems biology or bioinformatics,
- formulate a relevant research problem in bioinformatics or systems biology, supported by current scientific publications, and define the aims and objects of a corresponding research project,
- orally present and discuss scientific articles, and
- critically discuss ethical issues in systems biology and bioinformatics, as well as research ethics in general.

5. Examination

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

A final grade of the course is only issued when all the examination parts have been passed.

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

- **Written assignment**
  3 credits, grades: A/B/C/D/E/F (determines the final grade)
- **Article seminars**
  2 credits, grades: G/U
- **Seminar assignment**
  1 credit, grades: G/U
- **Oral presentation**
  1.5 credits, grades: G/U

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 is comprised of seminars and lectures.

The teaching is conducted in English.

7. Course literature and other educational materials

Scientific articles.

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

The content of the course corresponds completely or partially with the following course(s) and cannot be included in the required credits of a degree qualification:

- BI715A - Bioinformatics - Research Process A1F 7.5 credits
- SY733A - Systems Biology – Research Process, Advanced level 7.5 credits

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.