UNIVERSITY OF SKÖVDE

TRANSLATION FROM SWEDISH

## COURSE SYLLABUS

# Biomarkers in Molecular Medicine A1N

### 7.5 credits

**Course code:** BV705A
**Version number:** 9
**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 Biomarkers in Molecular Medicine A1N (Biomarkörer inom molekylär medicin A1N). It comprises 7.5 credits and is a second-cycle course. The level of progression is A1N.

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

## 2. Entry requirements

The prerequisites for this course are 150 higher education credits passed, of which at least 90 higher education credits must be courses within biology or medicine. Among these higher education credits, at least 15 must be on G2E-level or higher (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 gives the students knowledge in how biomarkers can be used as diagnostic, predictive and prognostic markers. The course also gives the students the necessary bioinformatics tool required to identify and verify different kinds of biomarkers. The course also contains an individual project where the students will solve a problem in an independent and scientific way and present this orally and in writing.

## 4. Objectives

After completed course the student should be able to:

- in detail describe how biomarkers are currently used in medicine, drug discovery and health monitoring,
- describe how bioinformatics tools can be used for biomarker discovery,
- in an individual project, theoretically study the applications of biomarkers,
- in a scientific way present the project orally,
- critically review scientific texts, and
- be able to discuss the use of biomarkers from a scientific and ethical perspective and their impact on society.

## 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:

- **Supervised written examination**
  4 credits, grades: A/B/C/D/E/F (determines the final grade)
- **Report**
  2.5 credits, grades: G/U
- **Seminar assignment**
  1 credit, 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 project work, lectures and supervision.

The teaching is conducted in English.

## 7. Course literature and other educational materials

Scientific articles within subject field.

## 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.