UNIVERSITY OF SKÖVDE

TRANSLATION FROM SWEDISH

COURSE SYLLABUS

Molecular and Cellular Infection Biology A1N

7.5 credits

Course code: BV714A
Version number: 4
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 Molecular and Cellular Infection Biology A1N (Molekylär och cellulär infektionsbiologi 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 medicine or biology. Among these higher education credits, at least 15 must be on G2E-level or higher (or the equivalent).

A further requirement is proof of skills in English equivalent of studies at upper secondary level in Sweden, known as English course 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 considers cellular and molecular aspects and mechanisms involved in the transmission and pathogenesis of important human microorganisms. The course also focuses on how different microorganisms try to escape or circumvent our immune response and how the immune system battles different types of microorganisms.

4. Objectives

After completed course the student should be able to:

- describe innate- and adaptive immune defence responses to pathogenic organisms,
- in a detailed way describe the transmission and pathogenesis of different bacteria, viruses, protozoans and metazoans as well as immune evasion and immune defence mechanisms to pathogens,
- critically read and evaluate scientific papers within the topic of the course and discuss different aspect of these, as well as
- be able to discuss infectious diseases from a scientific and ethical perspective and discuss the impact of infectious diseases on our 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 and is determined by a weighted average of the grades for the four written examinations in computer lab. The average value is rounded to the nearest integer (half rounded up) and translated into a final grade of the course.

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

- **Written examination in computer lab 1**
  1 credit, grades: A/B/C/D/E/F
- **Written examination in computer lab 2**
  1 credit, grades: A/B/C/D/E/F
- **Written examination in computer lab 3**
  1.5 credits, grades: A/B/C/D/E/F
- **Written examination in computer lab 4**
  2.5 credits, grades: A/B/C/D/E/F
- **Seminar assignment**
  0.5 credit, grades: G/U
- **Ethics seminars**
  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 seminars/group discussions and lectures.

The teaching is conducted in English.

7. Course literature and other educational materials

Murray, P. R., Rosenthal, K. S. & Pfaller, M. A. (2020). *Medical microbiology* (9th ed.). Edinburgh: Elsevier. ISBN 9780323673228.

The latest edition of the course literature must be used.

Scientific articles may be included.

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:

- MB713A - Infection Biology A1N 15 credits
- MB519G - Molecular Microbiology G2F 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.