UNIVERSITY OF SKÖVDE

TRANSLATION FROM SWEDISH

COURSE SYLLABUS

Immunology and Infection Biology G1F

7.5 credits

Course code: BM303G
Version number: 6
Valid from: 1 July 2025
Ratified by: Curriculum Committee for Health Sciences
Date of ratification: 23 April 2025

1. General information about the course

The course is provided by the University of Skövde and is named Immunology and Infection Biology G1F (Immunologi och infektionsbiologi G1F). It comprises 7.5 credits and is a first-cycle course. The level of progression is G1F.

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

2. Entry requirements

The course has the following entry requirements: 15 passed credits in one or more of the subjects of Biomedicine, Bioscience or Chemistry of which KE118G Laboratory Basic Course G1N must be passed (or the equivalent).

3. Course content

The course provides experimental and theoretical knowledge of the immune system and how the immune system protects humans against various types of infections caused by microorganisms. Principles for vaccines function, and deficiencies in the immune system that can lead to increased susceptibility to infections are also included in the course.

4. Objectives

After completion of the course, the student shall be able to:

- describe the structure and function of different forms of innate and acquired immunity
- describe pathogenic microorganisms and the diseases they cause as well as microbial virulence factors that can cause disease
- predict the type of immune response that is activated in response to different types of infections as well as explain effector mechanisms in these responses and immune evasion
- explain how vaccination is used to create immunity, how older and newer types of vaccines are structured and explain the advantages and disadvantages of each type of vaccines
- plan and carry out digital and experimental laboratory works linked to immunology and infection biology and communicate the results
- obtain and assess current knowledge in the field of immunology and infection biology from relevant sources, and report scientific results
- assess scientific work from scientific, societal and ethical aspects

5. Examination

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

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)
- **Reporting of the group works**
  2 credits, grades: G/U
- **Laboratory assignments**[1]
  1.5 credits, grades: G/U

[1] Examination of the laboratory assignments includes a dugga. The dugga aims to ensure the student has the necessary knowledge of the safety routines for the laboratory work as well as has sufficient theoretical knowledge to be able to perform laboratory in a professional manner. To be allowed to participate in the laboratory work the student must first pass the dugga.

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, group discussions, computer exercises and laboratory works.

The teaching is conducted in English.

7. Course literature and other educational materials

Madigan, M. et al. (2021). *Brock biology of microorganisms* (16th ed.). Harlow: Pearson Education. ISBN 9781292404790.

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

Scientific articles may be added.

Latest edition of the course literature should be used.

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.