1 Name, Scope and Level of the Course
The course is provided by the University of Skövde and is named Molecular and Cellular Infection Biology A1N. It comprises 7.5 credits and is on advanced level. The level of progression of the course is A1N.

2 Objectives
After completed course the student should be able to:
- describe microorganisms present in the normal flora as well as pathogens and their infection routes,
- in a detailed way describe composition and function of the innate and acquired immune defense,
- in a detailed way describe the infection mechanism of gram-positive and gram-negative bacteria and our immune defense against these,
- in a detailed way describe infection routes and mechanism of some common viruses and our immune defense against these,
- in a detailed way describe the infection mechanisms of protozoans and metazoans,
- in a detailed way present epidemiological principles such as immunity, spread of disease as well as development and spread of resistance,
- critically read and evaluate scientific papers and present the information orally and in writing, and
- discuss infectious diseases from a scientific and ethical perspective and their impact on our society.

3 Course Content
This course considers molecular mechanisms and processes involved in the pathogenesis of different microorganisms. To exemplify this a number of diseases caused by some representative microorganisms will be considered as well as the molecular and cellular processes of the immune defense. The course also consider complications/diseases related to a dysfunctional immune system.

4 Forms of Teaching
The teaching comprises lectures, presentations and seminars/group discussions.

The teaching is conducted in English.

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

Registration of examination results:

<table>
<thead>
<tr>
<th>Name of examination</th>
<th>Credits</th>
<th>Grading</th>
</tr>
</thead>
<tbody>
<tr>
<td>Supervised examination 1</td>
<td>5 credits</td>
<td>A/B/C/D/E/F</td>
</tr>
<tr>
<td>Written assignment</td>
<td>1 credits</td>
<td>G/U</td>
</tr>
<tr>
<td>Project</td>
<td>1.5 credits</td>
<td>G/U</td>
</tr>
</tbody>
</table>

1 Determines the final grade of the course.

Students with a permanent disability who have been approved for special educational support may be offered adapted or alternative examinations.
6 **Admission Requirements**
The prerequisite for this course is a Bachelor of Science (180 ECTS) in Molecular Biology or Biomedicine (or equivalent).

7 **Subject, Main Field of Study and Disciplinary Domain**
The course forms a part of the academic subject area of Bioscience. The course is a part of the main field of study in Bioscience at the University of Skövde. The disciplinary domain of the course is Natural Sciences.

Every course at the University of Skövde belongs to a subject. The division of subjects is used for follow-up and quality assurance. A main field of study is an area in which a degree can be awarded. Disciplinary domain is a division which is used by the government for the allocation of resources for studies at basic level and advanced level.

8 **Approval of Course and Course Syllabus**
The course was approved by the Curriculum Committee for Bioscience on 25 October 2018. This course syllabus was approved by the Curriculum Committee for Bioscience on 27 February 2020. It is valid from 1 July 2020 and replaces the course syllabus approved 20 December 2018.

9 **Overlapping with Another Course**
This course cannot constitute a part of a degree also containing a course the content of which is totally or partly equivalent to the content of this course, e.g. Molecular Microbiology G2F 7.5 credits Genetic Engineering A1N 7.5 credits Infection Biology A1N 15 credits

10 **Additional Information**
Further information will be available on the university’s website before a course is given.

National and local regulations for higher education are available on the university’s website.

Upon completion of the course there will be a follow-up. The main purpose of this follow-up is to contribute to improvements of the course. The students’ experiences and views constitute one of the criteria for the follow-up and are gathered by means of course evaluations. The students will be informed of the results of the follow-up and any decisions regarding actions that are to be taken.

11 **Course Literature and Other Educational Materials**
Scientific articles.