1 Name, Scope and Level of the Course
The course is provided by the University of Skövde and is named Molecular Genetics G1F. It comprises 7.5 credits and is on basic level. The level of progression of the course is G1F.

2 Objectives
After completed course the student should be able to:

- describe how genes are functioning and how their expression is regulated in prokaryotic and eukaryotic organisms,
- describe the theories behind some molecular biological techniques where DNA, RNA and proteins are studied,
- orally and in writing describe and discuss applications within gene technology,
- discuss ethical aspects concerning the use of gene technology, and
- plan and perform laboratory work were gene regulation is studied and discuss the results in writing.

3 Course Content
The course focuses on how genes function, are regulated and are constructed. The course also deals with the molecular biological techniques used to study gene function and structure and provides examples of applications where these techniques are used. The course also contains a longer laboratory experiment where genetic material will be cloned.

4 Forms of Teaching
The teaching comprises lectures, laboratory sessions and seminars/group discussions. Laborations and seminars/group discussions are mandatory.

Depending on the study period, the language of tuition may be Swedish or English. Even if the teaching is conducted in Swedish, some English may still occur.

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

The examination Laboratory assignment involves a dugga. The purpose of the dugga is to ensure that the student has the required knowledge regarding safety surrounding the laboratory work. The dugga also secure that the student can perform the laboration in an occupational workmanlike manner. The student must pass the dugga in order to be able to participate and complete the laboration.

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>4 credits</td>
<td>A/B/C/D/E/F</td>
</tr>
<tr>
<td>Seminar assignment</td>
<td>1 credits</td>
<td>G/U</td>
</tr>
<tr>
<td>Laboratory assignment 2</td>
<td>2.5 credits</td>
<td>G/U</td>
</tr>
</tbody>
</table>

1 Determines the final grade of the course.
2 The exam contains dugga.

Students with a permanent disability who have been
approved for special educational support may be offered adapted or alternative examinations.

6 Admission Requirements
Prerequisite courses for this course are: Passed courses: BV108G-Cell Biology G1N and BM136G-Genetics G1N (or the 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 28 November 2019. This course syllabus was approved by the Curriculum Committee for Bioscience on 28 November 2019. It is valid from 1 July 2020.

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. Gene Regulation G1F 7.5 credits
Molecular Genetics B11, Intermediate level 5 points
Gene Regulation B11, Intermediate level 5 points

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
