1 Name, Scope and Level of the Course
The course is provided by the University of Skövde and is named Bioinformatics - Research Process A1F. It comprises 7.5 credits and is on advanced level. The level of progression of the course is A1F.

2 Objectives
After completed course the students shall be able to:

- in a scientific way present a research proposal orally and as a written report,
- in a detailed way account for what a scientific approach means,
- in a critical and insightful way discuss issues about applying scientific methods,
- in an analytical way account for both within- and extra-scientific ethical issues that arise in the context of bioinformatics research,
- describe the process of scientific publishing, especially in bioinformatics,
- critically examine the contents of bioinformatics research articles, particularly with regard to scientific method,
- effectively search and locate scholarly articles on a given bioinformatics research problems,
- critically discuss ethical and gender aspects in bioinformatics research.

3 Course Content
The course covers the research process from hypothesis, through the methodology and analysis to the final result and writing of scientific reports. It discusses the ethical issues and also concerns a gender perspective. The course also deals with literature search and reference management. Training in scientific writing is given. Critical thinking and critical evaluation of scientific texts practiced by article studies and seminars.

4 Forms of Teaching
The teaching comprises lectures, seminars and and exercises.

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>Research proposal1</td>
<td>4.5</td>
<td>A/B/C/D/E/F</td>
</tr>
<tr>
<td>Seminars</td>
<td>3</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
Prerequisite courses for this course are: Passed courses: BI716A-Bioinformatics Concepts and Methods A1F and BI118G Bioinformatic Analysis with Perl G1N. In addition, approved courses corresponding to 7.5 credits in the subject group biology and medicine at advanced level are required (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 / English course B. This is normally demonstrated by means of an internationally recognized test, e.g. IELTS or TOEFL or the equivalent.

7 Subject, Main Field of Study and Disciplinary Domain
The course forms a part of the academic subject area of Bioinformatics. The course is a part of the main field of study in Bioinformatics 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 22 February 2018. This course syllabus was approved by the Curriculum Committee for Bioscience on 27 August 2020. It is valid from 1 January 2021 and replaces the course syllabus approved 28 November 2019.

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.

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
Research articles and web based materials.