Introduction to Bioinformatics G1N

7.5 credits

1 Name, Scope and Level of the Course

The course is provided by the University of Skövde and is named Introduction to Bioinformatics G1N. It comprises 7.5 credits and is on basic level. The level of progression of the course is G1N.

2 Objectives

The student should after completed course be able to:

- within the area, clarify fundamental concepts and basic approaches to solve a problem and be able to clarify the practical applications of bioinformatics
- clarify the fundamental public sources of information and their structure
- apply and report methods and tools for sequence analysis
- modeling evolutionary relationships and
- clarify expression analysis and apply methods for analysis of expression data

3 Course Content

The course contains an overview of the bioinformatic area and commonly occurring sources of information and methods that can be used. The underlying principles for the sources of information and methods are general and can be applied on many different problem areas. The goal is to gain a general knowledge about sources of information and methods with applications on problems in the molecular biology area.

4 Forms of Teaching

The teaching comprises individual assignments, supervision and laboratory sessions. The teaching is based on a flexible education. The implication of this means independent studies and supervision by flexible means. Each student is given opportunity for individual supervision. The teaching includes computer assignments and exercises.

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 final grade of the course is guided by the grades of the five assignments using a weighted average of the grades. A = 5, B = 4, C = 3, D = 2 and E = 1. The average value is rounded to the nearest integer (half rounded up) and translated into a final grade according to 5 = A, 4 = B, 3 = C, 2 = D and 1 = E.

Registration of examination results:

<table>
<thead>
<tr>
<th>Name of examination</th>
<th>Credits</th>
<th>Grading</th>
</tr>
</thead>
<tbody>
<tr>
<td>Written assignment 1</td>
<td>1 credits</td>
<td>A/B/C/D/E/F</td>
</tr>
<tr>
<td>Written assignment 2</td>
<td>1 credits</td>
<td>A/B/C/D/E/F</td>
</tr>
<tr>
<td>Written assignment 3</td>
<td>2 credits</td>
<td>A/B/C/D/E/F</td>
</tr>
<tr>
<td>Written assignment 4</td>
<td>1 credits</td>
<td>A/B/C/D/E/F</td>
</tr>
<tr>
<td>Written assignment 5</td>
<td>2.5 credits</td>
<td>A/B/C/D/E/F</td>
</tr>
</tbody>
</table>

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

6 Admission Requirements
The special prerequisite for this course, besides basic eligibility for university studies, is field eligibility A14/15: Civics 1b / 1a1 +1a2, Mathematics 2a / 2b / 2c, Science studies 2 or Civics A, Mathematics B, Science studies B.

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 26 April 2018. This course syllabus was approved by the Curriculum Committee for Bioscience on 26 March 2020. It is valid from 1 July 2020 and replaces the course syllabus approved 26 April 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.

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
Compendium material, University of Skövde.

Scientific articles and other material may also be included. These are separately stated on a list provided by the course responsible.